



South Central
COLLEGE

Academic Catalog & Handbook 2024-2025

Programs and Awards

Agriculture

Advanced Agriculture Technician

[CERT3137 - Advanced Agriculture Technician - Certificate](#)

Agribusiness

[AAS3126 - Agribusiness Office Specialist/Manager - Associate of Applied Science Degree](#)

[AAS3177 - Agribusiness - Associate of Applied Science Degree](#)

[CERT3117 - Agribusiness Chemical Applicator Technician - Certificate](#)

[DIP3138 - Agribusiness Sales, Service, and Management - Diploma](#)

[CERT3157 - Agronomy - Certificate](#)

Agriculture and Diesel Service

[DIP3139 - Agriculture and Diesel Service Technician - Diploma](#)

[AAS3154 - Agriculture Service Technician - Associate of Applied Science Degree](#)

[DIP3155 - Agriculture Technician - Diploma](#)

[DIP3160 - Agriculture Technician's Aide - Diploma](#)

Agriculture Education Technology

[AS3129 - Agricultural Education Technology Partnership - Associate of Science Degree](#)

Farm Business Management

[CERT3122 - Advanced Farm Business Management - Certificate](#)

[CERT3149 - Applications in Farm Business Management - Certificate](#)

[CERT3148 - Essentials of Farm Business Management - Certificate](#)

[CERT3135 - FBM AgSpark - Certificate](#)

[DIP3118 - Farm Business Management Diploma](#)

Production Agriculture

[AAS3166 - Production Agriculture - Associate of Applied Science Degree](#)

[DIP3162 - Farm Production, Management, and Operations - Diploma](#)

Professional Swine Manager

[CERT3156 - Professional Swine Manager - Certificate](#)

Sustainable Microfarming

[CERT3136 - Sustainable Microfarming - Certificate](#)

Arts and Information Technology

Computer Networking

[CERT3297 - Network Administration - Certificate](#)

[AAS3277 - Networking Services - Associate of Applied Science Degree](#)

[DIP3278 - Networking Services - Diploma](#)

Computer Programming

[CERT3279 - Computer Assistant - Certificate](#)
[CERT3261 - Web Programmer - Certificate](#)
[CERT3298 - Cloud Computing and Virtualization - Certificate](#)
[AAS3275 - Information Systems - Associate of Applied Science Degree](#)
[DIP3276 - Information Systems - Diploma](#)

Graphic Communications

[CERT3002 - Graphic Arts - Certificate](#)
[AAS3493 - Graphic Communications - Associate of Applied Science Degree](#)
[DIP3494 - Graphic Communications - Diploma](#)
[CERT3000 - Photography - Certificate](#)

Multimedia Technology

[AS3284 - Multimedia Technology - Associate of Science*](#)

Building and Design

Architectural Drafting and Design

[CERT3554 - Architectural Technology](#)
[DIP3498 - Architectural Drafting and Design - Diploma](#)
[AAS3496 - Architectural Drafting and Design - Associate of Applied Science Degree](#)

Carpentry

[DIP2457 - Carpentry - Diploma](#)

Civil Engineering Technology

[AAS3405 - Civil Engineering Technology - Associate of Applied Science Degree](#)

Geographic Information Systems

[CERT3481 - Geographic Information Systems - Certificate](#)

Heating Ventilation Air Conditioning and Refrigeration (HVAC/R)

[DIP3483 - Heating, Ventilation, Air Cond/Refrig - Foundation - Diploma](#)
[CERT3460 - Heating, Ventilation, Air Cond/Refrigeration \(Heating Cert\) - Certificate](#)
[DIP3472 - Heating, Ventilation, Air Conditioning/Refrigeration - Advanced - Diploma](#)
[AAS3456 - Heating, Ventilation, Air Conditioning/Refrigeration - Associate of Applied Science Degree](#)
[CERT3461 - Refrigeration Technology \(CERT\) - Certificate](#)

Business

Accounting

[DIP3242 - Accounting Assistant - Diploma](#)
[DIP3241 - Accounting Technician - Diploma](#)
[AAS3259 - Accounting Technician - Associate of Applied Science Degree](#)
[AAS3230 - Accountant - Associate of Applied Science Degree](#)
[CERT3270 - Payroll Clerk - Certificate](#)

Business Management

[AAS3280 - Business Management - Associate of Applied Science Degree](#)

Culinary Arts

[AAS3409 - Culinary Arts - Associate of Applied Science Degree](#)
[DIP3411 - Culinary Arts - Diploma](#)

Marketing Management

[AAS3272 - Marketing Management - Associate of Applied Science Degree](#)

[CERT3274 - Marketing Management - Certificate](#)

[DIP3273 - Marketing Management - Diploma](#)

Office Administration and Technology

[AAS3292 - Administrative Office Specialist - Associate of Applied Science Degree](#)

[CERT3293 - Administrative Office Specialist - Business Software - Certificate](#)

[AS3281 - Administrative Office Management - Associate of Science](#)

[CERT3294 - Administrative Office Specialist - Client Relations - Certificate](#)

General Education and Transfer Options

Associate of Arts

[AA3590 - Associate of Arts - Associate of Arts Degree](#)

[CERT3528 - Global Studies - Certificate](#)

Biology Transfer Pathway

[AS3526 - Biology Transfer Pathway - Associate of Science](#)

Business Transfer Pathway

[AS3299 - Business Transfer Pathway - Associate of Science](#)

Communications Studies Transfer Pathway

[AA3555 - Communication Studies Transfer Pathway - Associate of Arts](#)

Early Childhood Transfer Pathway

[AS3527 - Early Childhood Education Transfer Pathway](#)

Economics Transfer Pathway

[AA3591 - Economics Transfer Pathway - Associate of Arts](#)

Pre-Social Work Transfer Pathway

[AS3520 - Pre-Social Work Transfer Pathway - A.S.](#)

Psychology Transfer Pathway

[AA3190 - Psychology Transfer Pathway - Associate of Arts](#)

Health Sciences

Dental Assisting

[AAS3326 - Dental Assisting - Associate of Applied Science Degree](#)

[DIP3327 - Dental Assisting - Diploma](#)

Emergency Medical Services

[NA3802 - Emergency Medical Technician](#)

Health Sciences Broad Field

[AS3366 - Health Sciences Broad Field - Associate of Science](#)

Health Unit Coordinator

[CERT3313 - Health Unit Coordinator - Certificate](#)

Medical Assisting

[AAS3364 - Medical Assistant - Associate of Applied Science Degree](#)

Medical Laboratory Technician

[AAS3309 - Medical Laboratory Technician - Associate of Applied Science Degree](#)

Paramedic Technician

[CERT3325 - Community Paramedic - Certificate*](#)

[AAS3311 - Intensive Care Paramedic Technician - Associate of Applied Science Degree](#)

[DIP3310 - Intensive Care Paramedic Technician - Diploma](#)

Phlebotomy

[CERT2306 - Phlebotomy - Certificate](#)

Nursing Practical (LPN)

[DIP3304 - Practical Nursing - Diploma](#)

Nursing Professional (RN)

[AS_b3363 - Professional Nursing LPN to RN Transition Plan for Associate of Science Degree](#)

[AS_a3363 - Professional Nursing - Associate of Science Degree](#)

Nursing Assistant (CNA / HHA)

[NA3801 - Nursing Assistant \(Basic Nursing\)](#)

Surgical Technology

[AAS3530 - Surgical Technology - Associate of Applied Science Degree](#)

Human Services and Education

Early Childhood Education

[AAS3523 - Early Childhood Education - Associate of Applied Science Degree](#)

[CERT3521 - Early Childhood Education - Certificate](#)

[DIP3522 - Early Childhood Education - Diploma](#)

[AAS3667 - Early Childhood Education - Mental Health AAS](#)

[AAS3701 - Early Childhood Education - Outdoor/Nature Studies AAS](#)

[AAS3668 - Early Childhood Education - Trauma Informed Practices AAS](#)

Family Services

[AAS3515 - Family Services - Associate of Applied Science Degree](#)

Manufacturing

Energy Technical Specialist

[AAS3482 - Energy Technical Specialist - Associate of Applied Science Degree](#)

Machine Tool Technology

[AAS3516 - Machine Tool Technology - Associate of Applied Science Degree](#)

[DIP3665 - Machine Tool Technology - Diploma](#)

[DIP3517 - Machine Tool Technology - Diploma](#)

[DIP3525 - Welding and Machining Technology - Diploma](#)

[CERT3518 - Machine Tool Technology Right Skills Now - Certificate](#)

[CERT3529 - Machine Tool Technology Foundations - Certificate](#)

Manufacturing Production Technology

[DIP3485 - Intermediate Mechatronics Engineering Technology - Diploma](#)

[CERT3286 - Manufacturing Production Technology - Certificate](#)

Mechatronics

[DIP3485 - Intermediate Mechatronics Engineering Technology - Diploma](#)

[AAS3470 - Mechatronics Engineering Technology - Associate of Applied Science Degree](#)

[CERT3603 - Mechatronics Industrial Maintenance - Certificate](#)

Welding

[DIP3485 - Intermediate Mechatronics Engineering Technology - Diploma](#)

[CERT3770 - Advanced Welding - Certificate](#)

[CERT3660 - Welding - Certificate](#)

Transportation

Auto Body and Collision Technology

[AAS3415 - Auto Body and Collision Technology - Associate of Applied Science Degree](#)

[DIP3414 - Auto Body and Collision Technology - Diploma](#)

Automotive Service

[AAS3417 - Automotive Service - Associate of Applied Science Degree](#)

[DIP3416 - Automotive Service - Diploma](#)

Non-Awards

Minnesota Transfer Curriculum

[NA8004 - Minnesota Transfer Curriculum \(MNTC\)](#)

Advanced Agriculture Technician - Certificate

18 Credits CERT3137, Academic Catalog 2024-2025

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete the following courses:

MEAG1001 Mechatronics Applications in Agriculture (3 Credits) - This class is designed to introduce students to agricultural practices that have used automation technology to reduce input costs, decrease manual labor, improve safety, and/or increase efficiency and accuracy. Students will get a historic perspective of technological advances in agriculture, a sense of the current reality of mechatronics use in agribusiness, and evaluate areas ripe for automation upgrades. (Prerequisite: None)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

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Agribusiness Office Specialist/Manager - Associate of Applied Science Degree

72 Credits AAS3126, Academic Catalog 2024-2025

The Agribusiness Office Specialist/Manager program prepares students with the understanding, knowledge and skills to manage or staff a modern farm or agribusiness firm office. The program provides specific office skills necessary to function in an agribusiness office setting, as well as the agricultural background to work with producers and customers.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete the following courses:

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2150 Agribusiness Financial Management (4 Credits) - This course covers major aspects of agribusiness from financial management through financial problem solving, analysis, and planning. Students will apply economic and financial concepts by creating balance sheets, income statements, cash flows, inventory controls, and budgets. Students will have the opportunity to apply what they have learned in a computerized farm supply business simulation. Students will also develop management skills needed to be an effective agribusiness manager. (Prerequisites: AGECE 1100)

AGECE1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGECE 2400 or Instructor Permission)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

OTEC2800 Office Keyboarding (3 Credits) - This course covers the continuing development of keyboarding speed and accuracy. Advanced document formatting, such as letters, tables with special features, templates, labels, mail merges, multi-page reports, columns, etc., will be included. Students will continue to develop proofreading skills as they format documents from straight copy, rough draft, handwritten copy, and arranged and unarranged sources. (Prerequisite: A minimum keyboarding speed of 40 words per minute on a 3-minute timing, with 3 errors or less or advisor approval.)

OTEC2820 Business Communications (3 Credits) - This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

OTEC1820 Business English (3 Credits) - This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC1822 Microsoft Excel (4 Credits) - This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1840 Microsoft PowerPoint (3 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft PowerPoint. It begins with the introduction of concepts such as creating a basic presentation with pictures, shapes, and WordArt, adding media and animation. It continues with the basic skills students need to acquire to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as customizing templates and handouts using masters, developing presentations with content from outside sources, and organizing slides and creating photo albums. (Prerequisites: None)

OTEC1860 Microsoft Word (4 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2870 Information Resource Management (3 Credits) - This course covers rules and procedures for coding, indexing, filing, and retrieving documents in alphabetical, numeric, geographic, and subject systems. Applications include simulated correspondence filing and card filing using both manual and electronic methods. Students will learn how to use database management software to manage information. Records management topics emphasize records control and retention, final disposition of records, and records management issues and trends. (Prerequisite: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Agribusiness Internship - 6 Credits of the following course

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Technical Electives (10 Credits)

Choose 10 credits from the following courses:

AGBS2990 International Field Study (3 Credits) - This international field study seminar introduces students to agricultural, food, and natural resource systems of other countries of the world. The course consists of two major components: a series of pre- and/or post-departure workshops and an in-depth short-term structured international experience within a host country or countries. Students gain global perspective through exposure to international history, cultures, and socio-economic situations of the country or countries visited. Students explore, compare, and contrast food, fiber, and fuel systems of the country or countries visited. (Prerequisites: None)

AGEC2400 Commodity Marketing Principles (3 Credits) - This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGECE 1100)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2550 Agribusiness Transfer & Law (3 Credits) - This course covers farm estate planning and law topics with direct application to production agriculture. Topics include federal and state estate tax laws and their impact on the transfer of agriculture property. Estate planning options such as wills, life insurance and trusts will be explored. Other topics include farm partnerships and corporations, agricultural legal case studies, basic contracts, legal land descriptions, fence regulations, animal legalities, water rights, bankruptcy, gifting, and liability issues. (Prerequisite: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

OTEC2810 Computer Technology (3 Credits) - This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

OTEC2815 Employment Portfolio (3 Credits) - This course is a capstone course for the Office Administration and Technology program. This course will focus on developing knowledge that will serve as a foundation for the student's employment search process by assisting him/her in the development of successful marketing strategies for employment. As a capstone course, students are given an online assessment of the use of software and keyboarding skills to ensure competence prior to graduation. Students will develop distinctive portfolios to assist in their career search. Limited to final semester Office Administration and Technology program students. (Prerequisites: OTEC1860, OTEC2820)

OTEC2830 Microsoft Publisher (3 Credits) - Students will integrate word processing, graphics, and manipulate text graphics to produce professional quality publications. The topics covered are most useful to the student who has prior word processing experience and who needs to understand page compositions and typography for the purpose of preparing documents with flair. The course introduces the concepts, terminology, techniques, and applications of desktop publishing. Design concepts are limited to those useful in business applications and are not intended to present a "graphics/commercial art" focus. The emphasis will be on developing proficiency, preparing applications-based projects, and mastery of the software. Microsoft Publisher 2013: Complete is intended for a first course on Publisher 2013. No experience with a computer is assumed, and no mathematics beyond the high school freshman level is required. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 15 MnTC credits from 3 of the 10 MNTEC Goal Areas. The following course is required:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTEC 1: Communication)

Elective Arts and Sciences

Select 12 additional MnTC credits in goals 2-10. Courses must be selected in consultation with advisor/faculty.

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Agribusiness - Associate of Applied Science Degree

72 Credits AAS3177, Academic Catalog 2024-2025

The Agribusiness Service & Management program offers five areas of emphasis: Agronomy, Animal Science, Diversified, Sustainable Microfarming, and Viticulture. These program areas are designed to prepare students to sell and deliver services as employees of agribusiness firms in the crop and livestock related industries. Duties include performance of retail and office procedural tasks, preparation and implementation of marketing programs, sales and sales management, preparation of financial and business reports, delivery of products and services and managing selected aspects of these businesses. The program includes technical agriculture courses in the areas of plant, soil and animal science as well as agricultural industry equipment operation and maintenance. The courses in business include the subject areas of accounting, business procedures, interpersonal communication, financial and business management, marketing, selling and computer operations.

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

You must complete all of the following classes

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2150 Agribusiness Financial Management (4 Credits) - This course covers major aspects of agribusiness from financial management through financial problem solving, analysis, and planning. Students will apply economic and financial concepts by creating balance sheets, income statements, cash flows, inventory controls, and budgets. Students will have the opportunity to apply what they have learned in a computerized farm supply business simulation. Students will also develop management skills needed to be an effective agribusiness manager. (Prerequisites: AGEC 1100)

AGEC1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGEC2400 Commodity Marketing Principles (3 Credits) - This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGEC 1100)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGEC 2400 or Instructor Permission)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Internship (11 Credits)

Complete 11 credits

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Emphasis Area

Complete one of the following Emphasis Area's Requirements.

Animal Science Emphasis

Choose 22 credits from the following courses:

ANSC1105 Beef Production Management (3 Credits) - This course covers topics current to the beef industry as a productive enterprise, including beef and dairy-beef feedlot and cow-calf operations. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers and beef industry publications. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC1205 Ruminant Animal Production (3 Credits) - Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)

ANSC1305 Cattle Artificial Insemination (1 Credit) - This course covers a study of the techniques and equipment necessary for the artificial insemination in cattle. Principles involved in heat selection, bull selection, semen collection and storage, semen evaluation, insemination, record keeping, mating appraisal, and cleanup procedures will all be addressed in this course. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting

techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

SWPR1050 Swine Artificial Insemination (1 Credit) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. This course covers the study of the equipment necessary for artificial insemination in swine. Principles involved in heat detection, boar training, semen collection, semen evaluation, commercial semen, insemination, recordkeeping, and clean up procedures will all be addressed in this course. (Prerequisite: None)

SWPR1200 Swine Breeding Stock Management (3 Credits) - This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 Nursery Finish Management (3 Credits) - This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR1500 Swine Diseases (2 Credits) - This course is a review of all common swine diseases in relation to their economic significance, symptoms, transmission, prevention, and treatment. This course will consist primarily of disease prevention and the means required to promote productive livestock production. Some time will be spent on the analyzing of specific diseases, describing symptoms and treatment. Artificial immunization and sanitation and how they can be used for specific diseases will be covered. (Prerequisites: None)

SWPR2000 Swine Records and Analysis (3 Credits) - This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

Required Arts and Sciences for Animal Science Emphasis: 15 credits from 3 MnTC Goal Areas

Agronomy Emphasis

Choose 22 credits from the following courses:

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment maybe accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

PLSC2700 Advanced Agronomy (3 Credits) - This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

Required Arts and Sciences for Agronomy Emphasis: 15 credits from 3 MnTC Goal Areas

Diversified Emphasis

Choose 22 credits from the following departments AGECE, AGBS, AGRI, ANSC, MEAG, PLSC, SWPR and 15 credits from 3 MNTEC Goal Areas

Required Arts and Sciences for Diversified Emphasis: 15 credits from 3 MnTC Goal Areas

Sustainable Microfarming Emphasis

Required Emphasis Course

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

Choose 21 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

Required Arts and Sciences for Sustainable Microfarming Emphasis: 15 credits from 3 MnTC Goal Areas

Viticulture Emphasis

Choose 21 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1112 Botanical Viticulture (4 Credits) - This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy. (Prerequisite: None)

VITI1190 Viticulture Safety (1 Credit) - This course is an introduction to the hazards and safety issues in grape-growing. This course will include an overview of general agricultural safety and health, ergonomics, personal protective equipment, Occupational Safety and Health Administration (OSHA) rules and regulations, and other issues unique to viticulture. (Prerequisites: None)

VITI1211 Integrated Pest Management (2 Credits) - Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

VITI1293 Soils for Viticulture (3 Credits) - The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. Upon completion of the course students will be able to select sites for a new vineyard, and help manage soils in existing vineyards. (Prerequisites: None)

Required Arts and Sciences for Viticulture Emphasis: 15 credits from 3 MnTC Goal Areas

Agribusiness Chemical Applicator Technician - Certificate

30 Credits CERT3117, Academic Catalog 2024-2025

The Ag Chemical Applicator Technician Program will provide hands-on training in all areas of agriculture, including crops, soil, fertilizers, equipment operation and maintenance and agribusiness sales and management. Participants will gain proficiency with ultra-modern, high-tech chemical application equipment. Extensive use will be made of community-based resources to help provide private employment experience for students

Certificate Core Competencies

1. Demonstrate effective participation on an agribusiness team
2. Perform maintenance and operate agribusiness industry equipment
3. Perform agribusiness industry computer functions
4. Promote and sell agricultural services and products
5. Develop and maintain agribusiness records systems
6. Demonstrate application of agricultural inputs

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGEC 2400 or Instructor Permission)

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping

practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Elective Courses (Suggested)

These courses are not required but are suggested as courses which may be beneficial to you in this career field. You will graduate from this program even if you do not complete these courses.

AGBS2990 International Field Study (3 Credits) - This international field study seminar introduces students to agricultural, food, and natural resource systems of other countries of the world. The course consists of two major components: a series of pre- and/or post-departure workshops and an in-depth short-term structured international experience within a host country or countries. Students gain global perspective through exposure to international history, cultures, and socio-economic situations of the country or countries visited. Students explore, compare, and contrast food, fiber, and fuel systems of the country or countries visited. (Prerequisites: None)

AGBS2995 Individualized Study/Special Problems (1 - 6 Credits) - This course allows the student to pursue special projects or areas of interest. The number of credits must be agreed upon by advisor/advisee prior to registration. (Prerequisites: Successful completion of two semesters of training or by special arrangement)

AGEC1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC2100 Agronomy Lab (2 Credits) - This course covers the determination of grain quality, proper storage and handling. Laboratory exercises will be run on grain samples and student's home grains. Grain drying systems will be explained with advantages and disadvantages of each system identified. This course covers commercial grain grading practices including seed identification and grain grading. The course will also cover state grain marketing procedures and an introduction to USDA standards for corn, soybeans, wheat, oats, barley and sunflowers. (Prerequisite: None)

PLSC2700 Advanced Agronomy (3 Credits) - This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

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Agribusiness Sales, Service, and Management - Diploma

72 Credits DIP3138, Academic Catalog 2024-2025

Emphasis Areas available include: Agronomy, Animal Science, Diversified, Sustainable Microfarming, and Viticulture

Program emphasis areas are designed to prepare learners to sell and deliver services as employees of agribusiness firms in the crop and livestock related industries. Duties include performance of retail and office procedural tasks, preparation and implementation of marketing programs, sales and sales management, preparation of financial and business reports, delivery of products and services, and managing selected aspects of these businesses. The program includes technical agriculture courses in the areas of plant, soil, and animal science as well as agricultural industry equipment operation and maintenance. The courses in business include the subject areas of accounting, business procedures, interpersonal communication, financial/business management, marketing, selling, and computer operations. An 11 credit supervised occupational internship in an agribusiness firm is required. The A.A.S. Degree includes 15 credits of Arts and Sciences and the Diploma includes up to 6 credits of Arts and Sciences respectively.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

You must complete all of the following classes:

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGBS2150 Agribusiness Financial Management (4 Credits) - This course covers major aspects of agribusiness from financial management through financial problem solving, analysis, and planning. Students will apply economic and financial concepts by creating balance sheets, income statements, cash flows, inventory controls, and budgets. Students will have the opportunity to apply what they have learned in a computerized farm supply business simulation. Students will also develop management skills needed to be an effective agribusiness manager. (Prerequisites: AGECE 1100)

AGECE1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGECE2400 Commodity Marketing Principles (3 Credits) - This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGECE 1100)

AGECE2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGECE2550 Agribusiness Transfer & Law (3 Credits) - This course covers farm estate planning and law topics with direct application to production agriculture. Topics include federal and state estate tax laws and their impact on the transfer of agriculture property. Estate planning options such as wills, life insurance and trusts will be explored. Other topics include farm partnerships and corporations, agricultural legal case studies, basic contracts, legal land descriptions, fence regulations, animal legalities, water rights, bankruptcy, gifting, and liability issues. (Prerequisite: None)

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental

impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGEC 2400 or Instructor Permission)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

MEAG1500 Facility Maintenance (3 Credits) - This course covers...farm and residential electrical wiring. Practical 120/240 volt circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels included. Students will be wiring circuits according to code. Plumbing processes of Polyvinyl Chloride (PVC) and copper will be included. Another component of this class includes; OxyAcetylene welding, gas torch and/or plasma cutting and several forms of Arc welding. Students will spend time in the welding lab completing the required welds. Electrical and welding safety will be stressed. (Prerequisites: None).

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

Internship (11 Credits)

Complete 11 credits

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Animal Science Emphasis

Choose 22 credits from the following courses:

ANSC1105 Beef Production Management (3 Credits) - This course covers topics current to the beef industry as a productive enterprise, including beef and dairy-beef feedlot and cow-calf operations. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers and beef industry publications. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC1205 Ruminant Animal Production (3 Credits) - Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)

ANSC1305 Cattle Artificial Insemination (1 Credit) - This course covers a study of the techniques and equipment necessary for the artificial insemination in cattle. Principles involved in heat selection, bull selection, semen collection and storage, semen evaluation, insemination, record keeping, mating appraisal, and cleanup procedures will all be addressed in this course. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow

the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

SWPR1200 Swine Breeding Stock Management (3 Credits) - This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 Nursery Finish Management (3 Credits) - This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR1500 Swine Diseases (2 Credits) - This course is a review of all common swine diseases in relation to their economic significance, symptoms, transmission, prevention, and treatment. This course will consist primarily of disease prevention and the means required to promote productive livestock production. Some time will be spent on the analyzing of specific diseases, describing symptoms and treatment. Artificial immunization and sanitation and how they can be used for specific diseases will be covered. (Prerequisites: None)

SWPR2000 Swine Records and Analysis (3 Credits) - This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

Agronomy Emphasis

Choose 22 credits from the following courses:

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

PLSC2700 Advanced Agronomy (3 Credits) - This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

Diversified Emphasis

Choose 22 credits from the following departments: AGECE, AGBS, AGRI, ANSC, MEAG, PLSC, SWPR

Sustainable Microfarming

Required Emphasis Course

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

Choose 21 credits from the following courses

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock

selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment maybe accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

Viticulture Emphasis

Choose 22 credits from the following courses:

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment maybe accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1112 Botanical Viticulture (4 Credits) - This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy. (Prerequisite: None)

VITI1190 Viticulture Safety (1 Credit) - This course is an introduction to the hazards and safety issues in grape-growing. This course will include an overview of general agricultural safety and health, ergonomics, personal protective equipment, Occupational Safety and Health Administration (OSHA) rules and regulations, and other issues unique to viticulture. (Prerequisites: None)

VITI1211 Integrated Pest Management (2 Credits) - Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

VITI1293 Soils for Viticulture (3 Credits) - The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. Upon completion of the course students will be able to select sites for a new vineyard, and help manage soils in existing vineyards. (Prerequisites: None)

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Agronomy - Certificate

13 Credits CERT3157, Academic Catalog 2024-2025

The certificate is designed for individuals to enter agribusiness careers in the plant systems career pathways of agriculture. Students will support and service crop and soils business operations that provide input resources for farm operations. Individuals may be involved with the movement, transportation, distribution and application of inputs for the production and marketing of agriculture crops.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (7 Courses)

Complete all of the following courses. AGRI2780 Agribusiness Internship requires 2 credits.

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

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Agriculture and Diesel Service Technician - Diploma

72 Credits DIP3139, Academic Catalog 2024-2025

The diploma is designed to prepare learners for entry level career opportunities in the diesel, farm equipment, and industrial mechanics fields. Learners will diagnose and repair engines, fuel systems, power trains, electrical systems, hydraulics, air conditioning, and related machinery. With additional training and experience many technicians become shop foreman, service managers or open their own business.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (23 Courses)

Complete the following courses:

AGME1801 Outdoor Power Equipment (3 Credits) - This course covers operational theory and service competencies necessary to service small four-stroke cycle engines, two-stroke cycle engines, lawn/garden equipment, and chain saws. Fuel systems, electrical systems, tune-up, drive train adjustment, and attachments are emphasized. (Prerequisites: None)

AGME1812 Equipment Assembly, Operation, Adjustment and Reconditioning I (2 Credits) - This course covers basic tillage and planting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checklist, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1813 Equipment Assembly, Operation, Adjustment and Reconditioning II (2 Credits) - This course covers basic harvesting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checklist, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1821 Precision Measuring Tools (1 Credit) - This course covers using precision tools. The student will learn to use micrometers and vernier calipers (English and metric); torque wrenches; small hole and telescoping gauges; dial bore gauges; steel, iron, and wire gauges; feeler gauges; thread pitch gauges and plastigauges. Students will also learn compression testing (gas and diesel), cylinder leakage testing, and radiator cap, thermostat, and antifreeze testing. (Prerequisites: None)

AGME1822 Gas/Diesel Engine Repair I (3 Credits) - This course covers overhauling an engine. Students will rebuild gas and diesel heads. Steps covered include grinding valves, seats, and rocker arms; replacing worn seats and guides; testing springs; and reassembling heads. In addition, students will perform tasks such as engine removal/replacement and disassembly/reassembly; sleeve removal/replacement; and crankshaft, camshaft, sleeve, piston, bearing, and rod measuring. The reassembled engine will be timed, adjusted, and tested on the dynamometer. (Prerequisites: AGME 1821)

AGME1823 Engine Support Systems and Lab (3 Credits) - This course covers cooling, lubrication, and intake/exhaust systems. The student will identify, troubleshoot, and repair each of the systems. The student will also become familiar with special tools necessary to service these systems. The laboratory portion of the class involves overhauling an engine and should be taken in conjunction with AGME1822. Students will increase their understanding and knowledge by applying the materials and procedures learned in Gas/Diesel Engine Repair I. (Prerequisite: AGME 1821)

AGME1831 Tractor Power Trains (3 Credits) - This course includes lecture instruction and laboratory experience in dry clutches, wet clutches, mechanical transmissions, power take-off units, final drives, differentials, brakes, and steering. (Prerequisites: None)

AGME1861 Tractor Electrical Systems (3 Credits) - This course covers the fundamentals of electricity and its application to farm equipment electrical systems. The content includes wiring diagrams, batteries, test equipment, charging systems, cranking systems, ignition systems, and diagnostic service procedures. (Prerequisites: None)

AGME1881 Parts Department Operation (1 Credit) - This course covers the basics in the operation of an agricultural equipment dealership. The major emphasis is the parts department area. A total review of this department will be covered in class. (Prerequisite: None)

AGME1891 Hydraulic Theory (1 Credit) - This course covers basic hydraulic systems used with modern agricultural equipment. This course will focus on the basic principles and the study of hydraulic components that make up the modern hydraulic systems. Students must read and sign the safety eyeglass form required by the state. (Prerequisite: None)

AGME1923 Gas/Diesel Engine Repair II (4 Credits) - This course is designed to assist the students in building their understanding and application of materials and procedures learned in Gas/Diesel Engine Repair I, Power Trains, Electrical Systems, and other mechanical courses. The students will repair customer units. The primary repair work will involve engine overhaul (gas and diesel), clutch, brake, and

electrical repairs. Customer units must be completed by the end of the course. (Prerequisites: AGME1821. Students must be enrolled in the Agribusiness Service Technician program)

AGME1930 Ag Welding (2 Credits) - This is an introduction to both electric arc and gas welding. Also included is a short section on the wire welding system. (Prerequisites: None)

AGME2832 Hydraulic Assist/Hydrostatic Transmissions (2 Credits) - This course covers speed change, powershaft, and hydrostatic transmissions. The student identifies transmission operation, traces powerflow, and diagnoses problems. The student performs disassembly, repairing, reassembly, testing, and adjusting of various transmissions. The transmissions covered in the course include John Deere 8 and 16 speed, International Harvester TA, White 3 speed, Case RPS-34, Case-IH Magnum, and Sunstrand/Eaton hydrostatic. (Prerequisites: AGME 1821, AGME 1831)

AGME2841 Air Conditioning (1 Credit) - This course covers the air conditioning system. The student will reclaim, evacuate, charge, test, and diagnose the air conditioning system. Refrigerant identification equipment will be utilized. Compressor seal and head gasket replacement is included. (Prerequisites: None)

AGME2852 Introduction to Diesel (1 Credit) - This course covers an introduction to the diesel system, components, operation, and servicing nozzles. The student will study construction and operation of nozzles, as well as test, clean, repair, adjust, and diagnose multi-orifice and pintle nozzles. (Prerequisites: None)

AGME2853 Diesel Injection (Pumps) (3 Credits) - This course covers the operation, disassembly, repair, and adjustment of injection pumps. Rotary injection pumps covered are the Roosa Master DB, DC, DM2, DM4, and DB2 diesel pumps, the CAV DPA diesel pump, the Robert Bosch VE diesel pump, and the United Technologies Model 100 diesel pump. The Robert Bosch PES inline injection pump with the RSV governor will be included. Students will identify pump operation and component parts; disassemble, repair, and adjust internal parts; reassemble the pump; and perform pump adjustments on the test bench. (Prerequisite: None)

AGME2863 Advanced Agricultural Electrical/Electronics (2 Credits) - This course covers review, troubleshooting, and diagnosis of charging and starting systems. Reading of schematics for all electrical areas are also included. Other areas covered are theory and operation of lighting, warning, accessory, cooling, steering, shifting, and hitch control circuits. Monitoring and control circuits found on planters and combines are included. G.P.S. systems will be touched on with equipment availability. (Prerequisites: AGME 1861)

AGME2882 Ag Tech Seminar (1 Credit) - This course is designed to cover career opportunities, prospective placement, and current technical problems in the Agricultural Mechanics field. Time spent with topic areas may vary. (Prerequisites: None)

AGME2892 Hydraulic Theory and Diagnosis (4 Credits) - This course covers the hydraulic systems found on most agricultural and industrial equipment. The hydraulic diagrams, pumps, open/closed/pfc systems, valve types, electric over hydraulics, and JIC diagrams are presented. The students will identify, test, diagnose, and repair hydraulic systems and components such as control valves, power steering, brakes, pumps, rockshafts, and motors. This course includes use of the flow rator, flow meter, and pressure gauges. (Prerequisites: AGME 1891)

AGME2945 Tractor/Equipment Repair I (3 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisites: AGME 1822, 1823, 1831, 1891, 1923)

AGME2946 Tractor/Equipment Repair II (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisite: AGME 2945)

AGME2947 Tractor/Equipment Diagnosis and Repair (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students will perform repair services on customer tractors and school units and will compare their component repair time with flat rate. If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. (Prerequisites: AGME 2945. Student must be enrolled in the Agribusiness Service Technician program)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Internship (11 Credits)

Complete 11 credits:

AGME2940 Agribusiness Service Technician Internship (1 - 9 Credits) - This course is a cooperative work-study program between the South Central College Agribusiness Department Service Technicians program and area dealership or industry, which allows the student an employment-like work experience. Application of competencies gained from previous coursework will be emphasized. Specific tasks to be accomplished by the student will be identified in an individualized student training plan. Variable credits 1-9 (Prerequisite: Enrolled in Agribusiness Service Technician Program)

Elective Credits (1 Credit)

Complete 1 credit from courses offered in the following departments in consultation with faculty: AGBS, AGECE, AGRI, ANSC, MEAG, PLSC, SGAG, SWPR, OTEC, HLTH

Arts and Sciences (6 Credits)

Students must select 6 MNTC credits from 2 of the 10 MnTC goal areas in consultation with advisor/faculty.

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Agriculture Service Technician - Associate of Applied Science Degree

72 Credits AAS3154, Academic Catalog 2024-2025

This degree provides an opportunity for study in the area of agricultural power and mechanization. The major areas of study include gasoline and diesel engine component repair including the support lubrication, cooling, air intake, exhaust, and basic fuel systems. Other areas of emphasis are power trains (clutches and transmissions), DC electrical systems and monitors, hydraulics, and diesel fuel systems (nozzles and injection pumps). In addition, safety, air conditioning and outdoor power products complete the technical course offerings. The curriculum will provide both basic and advanced technical instruction. This degree includes a Arts and Sciences component of 15 credits

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (20 Courses)

Complete the following courses:

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

AGME1801 Outdoor Power Equipment (3 Credits) - This course covers operational theory and service competencies necessary to service small four-stroke cycle engines, two-stroke cycle engines, lawn/garden equipment, and chain saws. Fuel systems, electrical systems, tune-up, drive train adjustment, and attachments are emphasized. (Prerequisites: None)

AGME1812 Equipment Assembly, Operation, Adjustment and Reconditioning I (2 Credits) - This course covers basic tillage and planting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1813 Equipment Assembly, Operation, Adjustment and Reconditioning II (2 Credits) - This course covers basic harvesting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1821 Precision Measuring Tools (1 Credit) - This course covers using precision tools. The student will learn to use micrometers and vernier calipers (English and metric); torque wrenches; small hole and telescoping gauges; dial bore gauges; steel, iron, and wire gauges; feeler gauges; thread pitch gauges and plastigauges. Students will also learn compression testing (gas and diesel), cylinder leakage testing, and radiator cap, thermostat, and antifreeze testing. (Prerequisites: None)

AGME1822 Gas/Diesel Engine Repair I (3 Credits) - This course covers overhauling an engine. Students will rebuild gas and diesel heads. Steps covered include grinding valves, seats, and rocker arms; replacing worn seats and guides; testing springs; and reassembling heads. In addition, students will perform tasks such as engine removal/replacement and disassembly/reassembly; sleeve removal/replacement; and crankshaft, camshaft, sleeve, piston, bearing, and rod measuring. The reassembled engine will be timed, adjusted, and tested on the dynamometer. (Prerequisites: AGME 1821)

AGME1823 Engine Support Systems and Lab (3 Credits) - This course covers cooling, lubrication, and intake/exhaust systems. The student will identify, troubleshoot, and repair each of the systems. The student will also become familiar with special tools necessary to service these systems. The laboratory portion of the class involves overhauling an engine and should be taken in conjunction with AGME1822. Students will increase their understanding and knowledge by applying the materials and procedures learned in Gas/Diesel Engine Repair I. (Prerequisite: AGME 1821)

AGME1831 Tractor Power Trains (3 Credits) - This course includes lecture instruction and laboratory experience in dry clutches, wet clutches, mechanical transmissions, power take-off units, final drives, differentials, brakes, and steering. (Prerequisites: None)

AGME1861 Tractor Electrical Systems (3 Credits) - This course covers the fundamentals of electricity and its application to farm equipment electrical systems. The content includes wiring diagrams, batteries, test equipment, charging systems, cranking systems, ignition systems, and diagnostic service procedures. (Prerequisites: None)

AGME1881 Parts Department Operation (1 Credit) - This course covers the basics in the operation of an agricultural equipment dealership. The major emphasis is the parts department area. A total review of this department will be covered in class. (Prerequisite: None)

AGME1891 Hydraulic Theory (1 Credit) - This course covers basic hydraulic systems used with modern agricultural equipment. This course will focus on the basic principles and the study of hydraulic components that make up the modern hydraulic systems. Students must read and sign the safety eyeglass form required by the state. (Prerequisite: None)

AGME1923 Gas/Diesel Engine Repair II (4 Credits) - This course is designed to assist the students in building their understanding and application of materials and procedures learned in Gas/Diesel Engine Repair I, Power Trains, Electrical Systems, and other mechanical courses. The students will repair customer units. The primary repair work will involve engine overhaul (gas and diesel), clutch, brake, and electrical repairs. Customer units must be completed by the end of the course. (Prerequisites: AGME1821. Students must be enrolled in the Agribusiness Service Technician program)

AGME1930 Ag Welding (2 Credits) - This is an introduction to both electric arc and gas welding. Also included is a short section on the wire welding system. (Prerequisites: None)

AGME2832 Hydraulic Assist/Hydrostatic Transmissions (2 Credits) - This course covers speed change, powershaft, and hydrostatic transmissions. The student identifies transmission operation, traces powerflow, and diagnoses problems. The student performs disassembly, repairing, reassembly, testing, and adjusting of various transmissions. The transmissions covered in the course include John Deere 8 and 16 speed, International Harvester TA, White 3 speed, Case RPS-34, Case-IH Magnum, and Sunstrand/Eaton hydrostatic. (Prerequisites: AGME 1821, AGME 1831)

AGME2841 Air Conditioning (1 Credit) - This course covers the air conditioning system. The student will reclaim, evacuate, charge, test, and diagnose the air conditioning system. Refrigerant identification equipment will be utilized. Compressor seal and head gasket replacement is included. (Prerequisites: None)

AGME2852 Introduction to Diesel (1 Credit) - This course covers an introduction to the diesel system, components, operation, and servicing nozzles. The student will study construction and operation of nozzles, as well as test, clean, repair, adjust, and diagnose multi-orifice and pintle nozzles. (Prerequisites: None)

AGME2853 Diesel Injection (Pumps) (3 Credits) - This course covers the operation, disassembly, repair, and adjustment of injection pumps. Rotary injection pumps covered are the Roosa Master DB, DC, DM2, DM4, and DB2 diesel pumps, the CAV DPA diesel pump, the Robert Bosch VE diesel pump, and the United Technologies Model 100 diesel pump. The Robert Bosch PES inline injection pump with the RSV governor will be included. Students will identify pump operation and component parts; disassemble, repair, and adjust internal parts; reassemble the pump; and perform pump adjustments on the test bench. (Prerequisite: None)

AGME2863 Advanced Agricultural Electrical/Electronics (2 Credits) - This course covers review, troubleshooting, and diagnosis of charging and starting systems. Reading of schematics for all electrical areas are also included. Other areas covered are theory and operation of lighting, warning, accessory, cooling, steering, shifting, and hitch control circuits. Monitoring and control circuits found on planters and combines are included. G.P.S. systems will be touched on with equipment availability. (Prerequisites: AGME 1861)

AGME2882 Ag Tech Seminar (1 Credit) - This course is designed to cover career opportunities, prospective placement, and current technical problems in the Agricultural Mechanics field. Time spent with topic areas may vary. (Prerequisites: None)

AGME2892 Hydraulic Theory and Diagnosis (4 Credits) - This course covers the hydraulic systems found on most agricultural and industrial equipment. The hydraulic diagrams, pumps, open/closed/pfc systems, valve types, electric over hydraulics, and JIC diagrams are presented. The students will identify, test, diagnose, and repair hydraulic systems and components such as control valves, power steering, brakes, pumps, rockshafts, and motors. This course includes use of the flow rator, flow meter, and pressure gauges. (Prerequisites: AGME 1891)

Internship (11 Credits)

Complete 11 credits:

AGME2940 Agribusiness Service Technician Internship (1 - 9 Credits) - This course is a cooperative work-study program between the South Central College Agribusiness Department Service Technicians program and area dealership or industry, which allows the student an employment-like work experience. Application of competencies gained from previous coursework will be emphasized. Specific tasks to be accomplished by the student will be identified in an individualized student training plan. Variable credits 1-9 (Prerequisite: Enrolled in Agribusiness Service Technician Program)

Technical Electives (4 Credits)

Select 4 credits from the following courses in consultation with advisor/faculty.

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGBS2995 Individualized Study/Special Problems (1 - 6 Credits) - This course allows the student to pursue special projects or areas of interest. The number of credits must be agreed upon by advisor/advisee prior to registration. (Prerequisites: Successful completion of two semesters of training or by special arrangement)

AGME2882 Ag Tech Seminar (1 Credit) - This course is designed to cover career opportunities, prospective placement, and current technical problems in the Agricultural Mechanics field. Time spent with topic areas may vary. (Prerequisites: None)

AGME2945 Tractor/Equipment Repair I (3 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisites: AGME 1822, 1823, 1831, 1891, 1923)

AGME2946 Tractor/Equipment Repair II (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisite: AGME 2945)

AGME2947 Tractor/Equipment Diagnosis and Repair (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students will perform repair services on customer tractors and school units and will compare their component repair time with flat rate. If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. (Prerequisites: AGME 2945. Student must be enrolled in the Agribusiness Service Technician program)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

Arts and Sciences

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas. Select credits in consultation with advisor/faculty.

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Agriculture Technician - Diploma

37 Credits DIP3155, Academic Catalog 2024-2025

The diploma is designed to prepare a learner for entry level career opportunities in the diesel, farm equipment, and industrial mechanics fields. Learners will diagnose and repair engines, fuel systems, power trains, electrical systems, hydraulics, air conditioning, and related machinery. With additional training and experience many technicians become shop foreman, service managers or open their own business. This diploma is designed for the learner who has prior training in the field or credit for life experience. A pretest or prior course work is required for admittance to this program.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (11 Courses)

Complete the following courses:

AGME2832 Hydraulic Assist/Hydrostatic Transmissions (2 Credits) - This course covers speed change, powershaft, and hydrostatic transmissions. The student identifies transmission operation, traces powerflow, and diagnoses problems. The student performs disassembly, repairing, reassembly, testing, and adjusting of various transmissions. The transmissions covered in the course include John Deere 8 and 16 speed, International Harvester TA, White 3 speed, Case RPS-34, Case-IH Magnum, and Sunstrand/Eaton hydrostatic. (Prerequisites: AGME 1821, AGME 1831)

AGME2841 Air Conditioning (1 Credit) - This course covers the air conditioning system. The student will reclaim, evacuate, charge, test, and diagnose the air conditioning system. Refrigerant identification equipment will be utilized. Compressor seal and head gasket replacement is included. (Prerequisites: None)

AGME2852 Introduction to Diesel (1 Credit) - This course covers an introduction to the diesel system, components, operation, and servicing nozzles. The student will study construction and operation of nozzles, as well as test, clean, repair, adjust, and diagnose multi-orifice and pintle nozzles. (Prerequisites: None)

AGME2853 Diesel Injection (Pumps) (3 Credits) - This course covers the operation, disassembly, repair, and adjustment of injection pumps. Rotary injection pumps covered are the Roosa Master DB, DC, DM2, DM4, and DB2 diesel pumps, the CAV DPA diesel pump, the Robert Bosch VE diesel pump, and the United Technologies Model 100 diesel pump. The Robert Bosch PES inline injection pump with the RSV governor will be included. Students will identify pump operation and component parts; disassemble, repair, and adjust internal parts; reassemble the pump; and perform pump adjustments on the test bench. (Prerequisite: None)

AGME2863 Advanced Agricultural Electrical/Electronics (2 Credits) - This course covers review, troubleshooting, and diagnosis of charging and starting systems. Reading of schematics for all electrical areas are also included. Other areas covered are theory and operation of lighting, warning, accessory, cooling, steering, shifting, and hitch control circuits. Monitoring and control circuits found on planters and combines are included. G.P.S. systems will be touched on with equipment availability. (Prerequisites: AGME 1861)

AGME2882 Ag Tech Seminar (1 Credit) - This course is designed to cover career opportunities, prospective placement, and current technical problems in the Agricultural Mechanics field. Time spent with topic areas may vary. (Prerequisites: None)

AGME2892 Hydraulic Theory and Diagnosis (4 Credits) - This course covers the hydraulic systems found on most agricultural and industrial equipment. The hydraulic diagrams, pumps, open/closed/pfc systems, valve types, electric over hydraulics, and JIC diagrams are presented. The students will identify, test, diagnose, and repair hydraulic systems and components such as control valves, power steering, brakes, pumps, rockshafts, and motors. This course includes use of the flow rator, flow meter, and pressure gauges. (Prerequisites: AGME 1891)

AGME2945 Tractor/Equipment Repair I (3 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisites: AGME 1822, 1823, 1831, 1891, 1923)

AGME2946 Tractor/Equipment Repair II (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisite: AGME 2945)

AGME2947 Tractor/Equipment Diagnosis and Repair (4 Credits) - This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students will perform repair services on customer tractors and school units and will compare their component repair time with flat rate. If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. (Prerequisites: AGME 2945. Student must be enrolled in the Agribusiness Service Technician program)

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

OR

OTEC1790 Keyboarding for College (2 Credits) - This course covers the development of basic keyboarding techniques using the touch-typing method of the computer. Emphasis will be on learning the touch-typing method of typing alphabetic, number and symbol keys. The keyboarding goal will be to attain a minimum rate of 35 words per minute with accuracy. (Prerequisites: None)

Internship (9 Credits)

Complete 9 internship credits

AGME2940 Agribusiness Service Technician Internship (1 - 9 Credits) - This course is a cooperative work-study program between the South Central College Agribusiness Department Service Technicians program and area dealership or industry, which allows the student an employment-like work experience. Application of competencies gained from previous coursework will be emphasized. Specific tasks to be accomplished by the student will be identified in an individualized student training plan. Variable credits 1-9 (Prerequisite: Enrolled in Agribusiness Service Technician Program)

Elective Credit (1 Credit)

Select one credit from courses in the following subjects: AGBS, AGECE, AGRI, ANSC, MEAG, PLSC, SGAG, SWPR, OTEC or HLTH. Courses must be selected in consultation with advisor/faculty.

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Agriculture Technician's Aide - Diploma

35 Credits DIP3160, Academic Catalog 2024-2025

The diploma is designed to prepare learners for career opportunities in the diesel, farm equipment and industrial mechanics field. Students will prepare for entry level employment in a variety of settings doing lube services, detailing, and light mechanical repairs. With additional course work and experience technician aides will become service technicians.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete the following courses:

AGME1801 Outdoor Power Equipment (3 Credits) - This course covers operational theory and service competencies necessary to service small four-stroke cycle engines, two-stroke cycle engines, lawn/garden equipment, and chain saws. Fuel systems, electrical systems, tune-up, drive train adjustment, and attachments are emphasized. (Prerequisites: None)

AGME1812 Equipment Assembly, Operation, Adjustment and Reconditioning I (2 Credits) - This course covers basic tillage and planting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1813 Equipment Assembly, Operation, Adjustment and Reconditioning II (2 Credits) - This course covers basic harvesting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1821 Precision Measuring Tools (1 Credit) - This course covers using precision tools. The student will learn to use micrometers and vernier calipers (English and metric); torque wrenches; small hole and telescoping gauges; dial bore gauges; steel, iron, and wire gauges; feeler gauges; thread pitch gauges and plastigauges. Students will also learn compression testing (gas and diesel), cylinder leakage testing, and radiator cap, thermostat, and antifreeze testing. (Prerequisites: None)

AGME1822 Gas/Diesel Engine Repair I (3 Credits) - This course covers overhauling an engine. Students will rebuild gas and diesel heads. Steps covered include grinding valves, seats, and rocker arms; replacing worn seats and guides; testing springs; and reassembling heads. In addition, students will perform tasks such as engine removal/replacement and disassembly/reassembly; sleeve removal/replacement; and crankshaft, camshaft, sleeve, piston, bearing, and rod measuring. The reassembled engine will be timed, adjusted, and tested on the dynamometer. (Prerequisites: AGME 1821)

AGME1823 Engine Support Systems and Lab (3 Credits) - This course covers cooling, lubrication, and intake/exhaust systems. The student will identify, troubleshoot, and repair each of the systems. The student will also become familiar with special tools necessary to service these systems. The laboratory portion of the class involves overhauling an engine and should be taken in conjunction with AGME1822. Students will increase their understanding and knowledge by applying the materials and procedures learned in Gas/Diesel Engine Repair I. (Prerequisite: AGME 1821)

AGME1831 Tractor Power Trains (3 Credits) - This course includes lecture instruction and laboratory experience in dry clutches, wet clutches, mechanical transmissions, power take-off units, final drives, differentials, brakes, and steering. (Prerequisites: None)

AGME1861 Tractor Electrical Systems (3 Credits) - This course covers the fundamentals of electricity and its application to farm equipment electrical systems. The content includes wiring diagrams, batteries, test equipment, charging systems, cranking systems, ignition systems, and diagnostic service procedures. (Prerequisites: None)

AGME1881 Parts Department Operation (1 Credit) - This course covers the basics in the operation of an agricultural equipment dealership. The major emphasis is the parts department area. A total review of this department will be covered in class. (Prerequisite: None)

AGME1891 Hydraulic Theory (1 Credit) - This course covers basic hydraulic systems used with modern agricultural equipment. This course will focus on the basic principles and the study of hydraulic components that make up the modern hydraulic systems. Students must read and sign the safety eyeglass form required by the state. (Prerequisite: None)

AGME1923 Gas/Diesel Engine Repair II (4 Credits) - This course is designed to assist the students in building their understanding and application of materials and procedures learned in Gas/Diesel Engine Repair I, Power Trains, Electrical Systems, and other mechanical courses. The students will repair customer units. The primary repair work will involve engine overhaul (gas and diesel), clutch, brake, and

electrical repairs. Customer units must be completed by the end of the course. (Prerequisites: AGME1821. Students must be enrolled in the Agribusiness Service Technician program)

AGME1930 Ag Welding (2 Credits) - This is an introduction to both electric arc and gas welding. Also included is a short section on the wire welding system. (Prerequisites: None)

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Internship (3 Credits)

Complete 3 credits:

AGME2940 Agribusiness Service Technician Internship (1 - 9 Credits) - This course is a cooperative work-study program between the South Central College Agribusiness Department Service Technicians program and area dealership or industry, which allows the student an employment-like work experience. Application of competencies gained from previous coursework will be emphasized. Specific tasks to be accomplished by the student will be identified in an individualized student training plan. Variable credits 1-9 (Prerequisite: Enrolled in Agribusiness Service Technician Program)

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Agricultural Education Technology Partnership - Associate of Science Degree

60 Credits AS3129, Academic Catalog 2024-2025

The need for agricultural educators has created a unique partnership between South Central College and the University of Minnesota. The key is that this is not a regular transfer program. The 2 + 2 Partnership program allows learners to complete their first two years at SCC and apply every course toward a 4-year Ag Education degree from the University of Minnesota. All of the SCC credits in this program will be applied to a Bachelor of Science degree in Agricultural, Food and Environmental Education at the University of Minnesota, with a specialization in Agricultural Science and Technology Education. Learners' advisors will work with them to make sure that all your courses meet degree requirements. Please note that courses are subject to change. Some courses are delivered through interactive television (ITV) and online distance technologies. By working with the University of Minnesota to develop this partnership program, South Central College has given individuals a great start toward a life impacting career in Agricultural Education.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (7 Courses)

Complete all of the following courses:

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

Other Recommended Courses

The following courses are offered through the University of Minnesota Twin Cities through distance education. These courses are not specifically required to complete your degree at South Central College

AFEE1001 Introduction to Agricultural Education and Extension (University of Minnesota, Twin Cities) (1 credit Credits) - Historical development of the discipline of agricultural education; orientation to career opportunities; areas and expectations of specialization; issues in the field. This course must be completed through the University of Minnesota Twin Cities.

AFEE1002 Principles of Career Planning for Ag Professionals (University of Minnesota, Twin Cities) (1 credit Credits) - Self-assessment and analysis of interests, skills, and abilities. Analyses of occupations, employment potential, employee expectations for work. Use informational interviews to examine career options and employment portfolio for career planning. This course must be completed through the University of Minnesota Twin Cities.

AFEE2096 Professional Practicum in Ag Education: Early Experience (University of Minnesota, Twin Cities) (1 credit Credits) - Observe schools, extension offices, and agricultural oriented businesses to learn about the work and workplaces in agricultural education. This course must be completed through the University of Minnesota Twin Cities.

Required Arts and Sciences

Completing the Minnesota Transfer Curriculum (MnTC) requirements alone satisfies the lower division general education requirement at all Minnesota two and four-year colleges and universities. To complete the Minnesota Transfer Curriculum, students must: A) Complete all 10 goals B) Complete at least 40 college-level credits from courses listed within the 10 goal areas of the MnTC. C) Earn a cumulative GPA of 2.0 or higher in all MnTC courses.

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Advanced Farm Business Management - Certificate

30 Credits CERT3122/CERT2110, Academic Catalog 2024-2025

The Advanced Farm Business Management Certificate is designed for learners who have completed the full Farm Business management program and wish to continue to update their management skills in the rapidly changing and challenging area of farm business management. Similar to Farm Business Management, most learners in the Advanced Farm Business Management program will enroll as part-time students and will carry 10 credits per academic year.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Select the following courses:

FBMA2930 Fundamentals of Financial Management as it Relates to Risk Management (3 Credits) - This course is intended to enhance students' decision-making skills relating to business risk management. Students will investigate tools available to their business that would be effective in reducing potential risk for their operation. Emphasis will be placed on having the student research risk management options that will meet their business, family, and personal needs. (Prerequisite: None)

FBMA2931 Applied Financial Management as it Relates to Risk Management (3 Credits) - This course guides students in the application of concepts in financial management that can be used in the development of a business risk management program. The student will implement risk management tools that will assist in meeting business, family, and personal needs. (Prerequisite: None)

FBMA2932 Fundamentals of Financial Management/Strategic Planning Emphasis (3 Credits) - This course will enable students to identify the elements necessary to evaluate and create a strategic plan for the business, determining uses for the plan today and tomorrow and developing a plan to locate those team members necessary for strategic plan creation. (Prerequisites: None)

FBMA2933 Applied Financial Management/Strategic Planning Emphasis (3 Credits) - This course will provide practical application of strategic planning skills. Application skills will be practiced upon and applied to the student's business and business plan. (Prerequisites: None)

FBMA2934 Fundamentals of Financial Mgmt/Business Plan Emphasis (3 Credits) - This course will provide practical application of the business plan. Application skills will be practiced and applied as the student's business plan is prepared and implemented. (Prerequisite: None)

FBMA2935 Applications in Financial Management/Business Plans (3 Credits) - This course will provide practical application of the business plan. Students will utilize financial information and records to apply the business plan. (Prerequisite: None)

FBMA2936 Directed Study: Decision Making (2 Credits) - This course will examine the individual, family, and farm business decision-making processes with emphasis on upgrading and improving decision-making resources, tools and skills. Particularly, this course will lead the student to critically analyze information, applications, and implications of decision-making as it relates to their own situation. Students will evaluate their own decision-making process. (Prerequisites: None)

FBMA2937 Directed Study: Communications (2 Credits) - This course will assist the student in further acquiring and developing a higher level of communication skills. Students will review and evaluate various communication methods and techniques in dealing with and relating to individuals in both the public and private sector. Students will use this information in formulating an effective communication method and style. (Prerequisites: None)

FBMA2938 Directed Studies: Modern Agricultural Tech (2 Credits) - This course will deal with evaluating modern agricultural technological changes and determining if they fit into an individual's farming operation. (Prerequisites: None)

FBMA2939 Directed Study: Enterprise Alternatives (2 Credits) - This course will assist those students wanting to make changes in their farm business through enterprise expansion, addition, enhancement or elimination. The course will develop a set of procedures for exploring and evaluating alternative choices. (Prerequisites: None)

FBMA2940 Directed Studies: Farm Business Family Transition (2 Credits) - Students will study the many aspects of farm business and/or family transition which occur in the typical farm business. Both estate planning and transition planning will be explored. (Prerequisites: None)

FBMA2941 Directed Study: Personnel Management (2 Credits) - Students will organize skills for effective management of farm employees and agribusiness personnel through development of handbooks, compensation/incentive packages, individual expectations/evaluations, and team meetings. (Prerequisites: None)

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Applications in Farm Business Management - Certificate

30 Credits CERT3149/CERT2149, Academic Catalog 2024-2025

The Farm Business Management program is designed for students actively engaged in the operation and management of a farm business. The purpose of the program is to develop the manager's ability to organize resources in order to meet business and family goals. Management is the utilization of resources to maximize the return to the scarcest resource, which is a continuous decision-making process. The program emphasizes goal setting, the identification of resources, records management, business analysis, and interpretation.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Select the following courses:

FBMT2141 Interpreting and Evaluation of Financial Data (4 Credits) - This course continues to expand on preparation and evaluation of the farm business analysis, providing guidance towards mastery of business record close-out procedures, tax implications of management decisions, and the monitoring of farm business and family goals. (Prerequisites: None)

FBMT2142 Interpreting Trends in Business Planning (4 Credits) - This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data is compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure. (Prerequisites: None)

FBMT2151 Strategies in Farm System Data Management (4 Credits) - This course will help the student focus on long-term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by developing an accurate, usable business analysis. (Prerequisites: None)

FBMT2152 Integrating System Information for Financial Planning (4 Credits) - This course uses farm system information to develop a farm financial plan. Interpretation and analysis of the farm system data will enhance the reliability of the farm plan. The comprehensive farm plan will integrate historical trends, farm and personal goals, and financial and enterprise performance of the farm business. (Prerequisites: None)

FBMT2161 Examination of the Context of Farm System Management (4 Credits) - This course is designed to assist students in preparation of improved farm system management procedures. Students in the course will evaluate several years of an improved farm system analysis. (Prerequisites: None)

FBMT2162 Refining Farm System Management (4 Credits) - This course is the culmination of activities designed to enable the student to develop and implement a comprehensive farm business strategic plan. The student will use the components of the Farm Business Management Program to develop and support a farm business strategic plan. (Prerequisites: None)

Required Electives (6 Credits)

Select 6 credits from the following courses:

FBMT1233 Application of Productive Enterprise Information (2 Credits) - This course describes procedures for applying enterprise information provided by computerized analysis of farm business accounts. (Prerequisites: None)

FBMT2201 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2202 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2203 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2204 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2205 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2237 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2238 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2239 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

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Essentials of Farm Business Management - Certificate

30 Credits CERT3148, Academic Catalog 2024-2025

A program that prepares individuals to manage farms, ranches, and similar enterprises. Includes instruction in applicable agricultural specialization, business management, accounting, taxation, capitalization, purchasing, government programs and regulations, operational planning and budgeting, contracts and negotiation, and estate planning.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Select the following courses:

FBMT1112 Foundations for Farm Business Management (4 Credits) - This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course. (Prerequisites: None)

FBMT1121 Preparation for Farm Business Analysis (4 Credits) - This course will take the student through a step-by-step procedure to close out a complete year of farm business records. This course will emphasize tax planning, completing inputs to livestock and crop enterprises, and emphasizing cash and liabilities accuracy. A completed business and enterprise analysis will be the course focus. (Prerequisites: None)

FBMT1122 Implementing the System Management Plan (4 Credits) - This course continues to build on the foundation of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component. (Prerequisites: None)

FBMT1131 Managing and Modifying Farm System Data (4 Credits) - This course will help students refine their farm business data system and assist them in applying year-end procedures for farm business analysis. Students improve accuracy in the following areas: farm enterprise analysis, tax planning, data filing, and cash and liability checks. (Prerequisites: None)

FBMT1132 Interpreting and Using Farm System Data (4 Credits) - This course provides an opportunity for the student to view the farm business and its various components through the application of balance sheets, farm personal and managerial inventories, enterprise reports and historical data. (Prerequisite: None)

FBMT1211 Intro to Farm Business Management (4 Credits) - This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning. (Prerequisites: None)

Required Electives (6 Credits)

Select 6 credits from the following courses:

FBMT2201 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2202 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2203 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2204 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2205 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2206 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2238 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2239 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2253 System Plans and Projections (2 Credits) - This course enables the combination of concepts for preparing farm system plans and projections, and the interaction of possible implications and/or solutions of these concepts. (Prerequisites: None)

FBMT2325 Ethics in this Business of Agriculture (2 Credits) - This course will explore various ways in which a farm business conducts business and address their proper conduct. (Prerequisite: None)

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FBM AgSpark - Certificate

14 Credits CERT3135/CERT2154, Academic Catalog 2024-2025

In effort to attract new farmers and beginning farmers to rural Minnesota, FBM instructors have identified several courses that would aid individuals as they start their farming careers. Our mission is to meet the personal and career goals of a wide range of individual learners that enhances the quality of life as individuals sustain their agricultural entrepreneurial venture.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Technical Courses (2 Courses)

Select the following courses:

FBMT1112 Foundations for Farm Business Management (4 Credits) - This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course. (Prerequisites: None)

FBMT1211 Intro to Farm Business Management (4 Credits) - This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning. (Prerequisites: None)

Elective Credits (6 Credits)

Choose 6 credits from the following courses:

FBMT1170 Intro to Farm Commodity Marketing (3 Credits) - This course is designed to introduce the various methods and tools to market farm commodities. Students will study types of marketing contracts, cash markets, the role of brokers and market advisors, and the importance of insurance. (Prerequisites: None)

FBMT2205 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2206 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2207 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2208 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2209 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2215 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2216 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit

student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2217 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2218 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2219 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2225 Special Topics-Crops (2 Credits) - This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2226 Special Topics-Crops (2 Credits) - This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2227 Special Topics-Crops (2 Credits) - This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2228 Special Topics-Crops (2 Credits) - This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2229 Special Topics-Crops (2 Credits) - This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2235 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2236 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2237 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2238 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2239 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

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Farm Business Management Diploma

60 Credits DIP3118/DIP2101, Academic Catalog 2024-2025

The Farm Business Management program is designed for those actively engaged in the operation and management of a farm business. The purpose of the program is to develop the manager's ability to organize resources in order to meet business and family goals. Management is the utilization of resources to maximize the return to the scarcest resource which is a continuous decision-making process. The program emphasizes goal setting, the identification of resources, records management, business analysis and interpretation.

This program is eligible for state grant funding only.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

FBMT1112 Foundations for Farm Business Management (4 Credits) - This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course. (Prerequisites: None)

FBMT1121 Preparation for Farm Business Analysis (4 Credits) - This course will take the student through a step-by-step procedure to close out a complete year of farm business records. This course will emphasize tax planning, completing inputs to livestock and crop enterprises, and emphasizing cash and liabilities accuracy. A completed business and enterprise analysis will be the course focus. (Prerequisites: None)

FBMT1122 Implementing the System Management Plan (4 Credits) - This course continues to build on the foundation of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component. (Prerequisites: None)

FBMT1131 Managing and Modifying Farm System Data (4 Credits) - This course will help students refine their farm business data system and assist them in applying year-end procedures for farm business analysis. Students improve accuracy in the following areas: farm enterprise analysis, tax planning, data filing, and cash and liability checks. (Prerequisites: None)

FBMT1132 Interpreting and Using Farm System Data (4 Credits) - This course provides an opportunity for the student to view the farm business and its various components through the application of balance sheets, farm personal and managerial inventories, enterprise reports and historical data. (Prerequisite: None)

FBMT1211 Intro to Farm Business Management (4 Credits) - This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning. (Prerequisites: None)

FBMT2141 Interpreting and Evaluation of Financial Data (4 Credits) - This course continues to expand on preparation and evaluation of the farm business analysis, providing guidance towards mastery of business record close-out procedures, tax implications of management decisions, and the monitoring of farm business and family goals. (Prerequisites: None)

FBMT2142 Interpreting Trends in Business Planning (4 Credits) - This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data is compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure. (Prerequisites: None)

FBMT2151 Strategies in Farm System Data Management (4 Credits) - This course will help the student focus on long-term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by developing an accurate, usable business analysis. (Prerequisites: None)

FBMT2152 Integrating System Information for Financial Planning (4 Credits) - This course uses farm system information to develop a farm financial plan. Interpretation and analysis of the farm system data will enhance the reliability of the farm plan. The comprehensive farm plan will integrate historical trends, farm and personal goals, and financial and enterprise performance of the farm business. (Prerequisites: None)

FBMT2161 Examination of the Context of Farm System Management (4 Credits) - This course is designed to assist students in preparation of improved farm system management procedures. Students in the course will evaluate several years of an improved farm system analysis. (Prerequisites: None)

FBMT2162 Refining Farm System Management (4 Credits) - This course is the culmination of activities designed to enable the student to develop and implement a comprehensive farm business strategic plan. The student will use the components of the Farm Business

Management Program to develop and support a farm business strategic plan. (Prerequisites: None)

Technical Electives (12 Credits)

Complete 12 credits from the following courses:

FBMT1233 Application of Productive Enterprise Information (2 Credits) - This course describes procedures for applying enterprise information provided by computerized analysis of farm business accounts. (Prerequisites: None)

FBMT2200 Special Topics in General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2201 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2202 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2203 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2204 Special Topics-General Farm Management (1 Credit) - Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2205 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2206 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2207 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2208 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2209 Special Topics-General Farm Management (2 Credits) - This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2210 Special Topics-Marketing (1 Credit) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2211 Special Topics-Marketing (1 Credit) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2212 Special Topics-Marketing (1 Credit) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2213 Special Topics-Marketing (1 Credit) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2214 Special Topics-Marketing (1 Credit) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2215 Special Topics-Marketing (2 Credits) - This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2232 Special Topics-Livestock (1 Credit) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2233 Special Topics-Livestock (1 Credit) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2234 Special Topics-Livestock (1 Credit) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2235 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2236 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2237 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2238 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2239 Special Topics-Livestock (2 Credits) - This course focuses on the analysis of special topics in livestock management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Beef-cow/calf, dairy, swine, sheep, goat, turkey, chicken, dairy heifers, beef market and specialty livestock (organic, honey bees, deer, elk, etc.). (Prerequisites: None)

FBMT2253 System Plans and Projections (2 Credits) - This course enables the combination of concepts for preparing farm system plans and projections, and the interaction of possible implications and/or solutions of these concepts. (Prerequisites: None)

FBMT2325 Ethics in this Business of Agriculture (2 Credits) - This course will explore various ways in which a farm business conducts business and address their proper conduct. (Prerequisite: None)

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Production Agriculture - Associate of Applied Science Degree

72 Credits AAS3166, Academic Catalog 2024-2025

The Production Agriculture program offers three areas of emphasis – Agronomy, Animal Science, Diversified, Sustainable Microfarming, and Viticulture – to provide students with an opportunity for study in the areas of plant and animal production. The crop production areas consist of selection, planning, management, harvesting, and marketing. Areas of soil science are also studied focusing on fertility, conservation, and tillage. The animal production study consists of areas in breeding, feeding, care, management and marketing. In addition, courses in farm machinery, buildings and structures, farm management, farm accounting, farm business analysis, and farm business reorganization provide a broad-based program of study. Students will be required to keep a complete farm record for analysis and interpretation. An internship will be required.

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (11 Courses)

You must complete all of the following courses:

AGEC1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGEC1200 Principles of Farm Records (3 Credits) - This course covers types of records, setup and use of accounts through computerization of farm information. Discussion of the types of record keeping systems will be covered, a review of various record keeping systems and tools used to input, analyze and utilize the information from the farm business activity. Selection and implementation of a record keeping program will be required. Students will initiate records on a current farming operation. (Prerequisite: None)

AGEC2250 Farm Business Planning & Analysis (4 Credits) - This course covers closeout and analysis of a farm accounting problem or the student's own farm business. Also covered will be various analysis techniques, a comparative analysis of all farm production, efficiency and financial factors and a review of current tax management factors. The course will review enterprise, whole farm business and personal expenses in South Central Minnesota region. The course will also cover cash flows, business plans and enterprise budgeting. This course will focus on financial management records and the analysis of each production component of the business. Students will use FinPack software to complete their analysis and to develop business plans for their future business goals. (Prerequisites: AGECE 1200)

AGEC2400 Commodity Marketing Principles (3 Credits) - This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGECE 1100)

AGEC2550 Agribusiness Transfer & Law (3 Credits) - This course covers farm estate planning and law topics with direct application to production agriculture. Topics include federal and state estate tax laws and their impact on the transfer of agriculture property. Estate planning options such as wills, life insurance and trusts will be explored. Other topics include farm partnerships and corporations, agricultural legal case studies, basic contracts, legal land descriptions, fence regulations, animal legalities, water rights, bankruptcy, gifting, and liability issues. (Prerequisite: None)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGECE 2400 or Instructor Permission)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

MEAG1500 Facility Maintenance (3 Credits) - This course covers...farm and residential electrical wiring. Practical 120/240 volt circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels included. Students will be wiring circuits according to code. Plumbing processes of Polyvinyl Chloride (PVC) and copper will be included. Another component of this class includes; OxyAcetylene welding, gas torch and/or plasma cutting and several forms of Arc welding. Students will spend time in the welding lab completing the required welds. Electrical and welding safety will be stressed. (Prerequisites: None).

OR

MEAG1510 Facility Operations Maintenance (3 Credits) - This course includes a detailed look at maintenance and servicing of production facilities: electrical, plumbing, and mechanical equipment. Trouble shooting of ventilation, plumbing, feed lines, curtain controls, and electric motors will be discussed. Included also in the course are practical 120/240 volt wiring, electrical safety, device selection, and installation methods that apply to workers in livestock and production facilities. This course will also cover maintenance of heaters, waste handling, and facility equipment used in livestock facilities. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Agribusiness Internship

Complete 11 Credits

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Emphasis Areas

Complete one of the following emphasis areas.

Animal Science Emphasis - 17 Credits

Choose 17 credits from the following courses:

ANSC1105 Beef Production Management (3 Credits) - This course covers topics current to the beef industry as a productive enterprise, including beef and dairy-beef feedlot and cow-calf operations. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers and beef industry publications. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC1205 Ruminant Animal Production (3 Credits) - Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)

ANSC1305 Cattle Artificial Insemination (1 Credit) - This course covers a study of the techniques and equipment necessary for the artificial insemination in cattle. Principles involved in heat selection, bull selection, semen collection and storage, semen evaluation, insemination, record keeping, mating appraisal, and cleanup procedures will all be addressed in this course. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

SWPR1050 Swine Artificial Insemination (1 Credit) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. This course covers the study of the equipment necessary for artificial insemination in swine. Principles involved in heat detection, boar training, semen collection, semen evaluation, commercial semen, insemination, recordkeeping, and clean up procedures will all be addressed in this course. (Prerequisite: None)

SWPR1200 Swine Breeding Stock Management (3 Credits) - This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 Nursery Finish Management (3 Credits) - This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR1500 Swine Diseases (2 Credits) - This course is a review of all common swine diseases in relation to their economic significance, symptoms, transmission, prevention, and treatment. This course will consist primarily of disease prevention and the means required to promote productive livestock production. Some time will be spent on the analyzing of specific diseases, describing symptoms and treatment. Artificial immunization and sanitation and how they can be used for specific diseases will be covered. (Prerequisites: None)

SWPR2000 Swine Records and Analysis (3 Credits) - This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

Required Arts and Sciences for Agronomy Emphasis 15 credits from 3 MnTC Goal Areas

Agronomy Emphasis - 17 Credits

Choose 17 credits from the following courses:

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural

commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

PLSC2700 Advanced Agronomy (3 Credits) - This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

Required Arts and Sciences for Agronomy Emphasis 15 credits from 3 MnTC Goal Areas

Diversified Emphasis - 17 Credits

Choose 17 credits from the following departments: AGECE, AGBS, AGRI, ANSC, MEAG, PLSC, SWPR

Required Arts and Sciences for Diversified Emphasis 15 credits from 3 MnTC Goal Areas

Sustainable Microfarming Emphasis - 17 Credits

Required Emphasis Course

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

Choose 16 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

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MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

Required Arts and Sciences for Sustainable Microfarming Emphasis 15 credits from 3 MnTC Goal Areas

Viticulture Emphasis - 17 Credits

Choose 17 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1112 Botanical Viticulture (4 Credits) - This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that

distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy. (Prerequisite: None)

VITI1190 Viticulture Safety (1 Credit) - This course is an introduction to the hazards and safety issues in grape-growing. This course will include an overview of general agricultural safety and health, ergonomics, personal protective equipment, Occupational Safety and Health Administration (OSHA) rules and regulations, and other issues unique to viticulture. (Prerequisites: None)

VITI1211 Integrated Pest Management (2 Credits) - Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

VITI1293 Soils for Viticulture (3 Credits) - The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. Upon completion of the course students will be able to select sites for a new vineyard, and help manage soils in existing vineyards. (Prerequisites: None)

Required Arts and Sciences for Viticulture Emphasis 15 credits from 3 MnTC Goal Areas

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Farm Production, Management, and Operations - Diploma

72 Credits DIP3162, Academic Catalog 2024-2025

Emphasis Areas available include: Agronomy, Animal Science, Diversified, Microfarming, and Viticulture

Program emphasis areas provide learners with an opportunity for study in the areas of plant and animal production. The crop production areas consist of selection, planning, management, harvesting, and marketing. Areas of soil science are also studied focusing on fertility, conservation, and tillage. The animal production study consists of areas in breeding, feeding, care, management, and marketing. In addition, courses in farm machinery, buildings and structures, farm management, farm accounting, farm business analysis, and farm business reorganization provide a broad-based program of study. Learners will be required to keep a complete farm record for analysis and interpretation. An on-the-farm internship will be required. The A.A.S. Degree includes 15 credits of Arts and Sciences and the Diploma includes up to 6 credits of Arts and Sciences respectively.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

You must complete all of the following classes:

AGEC1100 Introduction to Agricultural Economics (3 Credits) - This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGEC1200 Principles of Farm Records (3 Credits) - This course covers types of records, setup and use of accounts through computerization of farm information. Discussion of the types of record keeping systems will be covered, a review of various record keeping systems and tools used to input, analyze and utilize the information from the farm business activity. Selection and implementation of a record keeping program will be required. Students will initiate records on a current farming operation. (Prerequisite: None)

AGEC2250 Farm Business Planning & Analysis (4 Credits) - This course covers closeout and analysis of a farm accounting problem or the student's own farm business. Also covered will be various analysis techniques, a comparative analysis of all farm production, efficiency and financial factors and a review of current tax management factors. The course will review enterprise, whole farm business and personal expenses in South Central Minnesota region. The course will also cover cash flows, business plans and enterprise budgeting. This course will focus on financial management records and the analysis of each production component of the business. Students will use FinPack software to complete their analysis and to develop business plans for their future business goals. (Prerequisites: AGECE 1200)

AGEC2400 Commodity Marketing Principles (3 Credits) - This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGECE 1100)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2550 Agribusiness Transfer & Law (3 Credits) - This course covers farm estate planning and law topics with direct application to production agriculture. Topics include federal and state estate tax laws and their impact on the transfer of agriculture property. Estate planning options such as wills, life insurance and trusts will be explored. Other topics include farm partnerships and corporations, agricultural legal case studies, basic contracts, legal land descriptions, fence regulations, animal legalities, water rights, bankruptcy, gifting, and liability issues. (Prerequisite: None)

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2700 Agricultural Technology Seminar (2 Credits) - This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGECE 2400 or Instructor Permission)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology,

environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1300 Agronomy I (2 Credits) - This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

MEAG1500 Facility Maintenance (3 Credits) - This course covers...farm and residential electrical wiring. Practical 120/240 volt circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels included. Students will be wiring circuits according to code. Plumbing processes of Polyvinyl Chloride (PVC) and copper will be included. Another component of this class includes; OxyAcetylene welding, gas torch and/or plasma cutting and several forms of Arc welding. Students will spend time in the welding lab completing the required welds. Electrical and welding safety will be stressed. (Prerequisites: None).

MEAG2200 Planning Farmstead Environments (3 Credits) - This course covers farm building materials and methods of construction. Farmstead planning concepts are examined and applied to the student's home farm situation. Design and drawing of various types of farm buildings are included. The storing, drying, processing and handling of grain and feed are included. Ventilation of livestock buildings and animal waste management is emphasized. Students will gain experience in sizing and selecting equipment for agricultural materials handling applications. (Prerequisite: None)

Agribusiness Internship - 11 Credits

All areas of emphasis require 11 internship credits.

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Emphasis Areas

Complete one of the following emphasis areas.

Animal Science Emphasis

Choose 23 credits from the following courses:

ANSC1105 Beef Production Management (3 Credits) - This course covers topics current to the beef industry as a productive enterprise, including beef and dairy-beef feedlot and cow-calf operations. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers and beef industry publications. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC1205 Ruminant Animal Production (3 Credits) - Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)

ANSC1305 Cattle Artificial Insemination (1 Credit) - This course covers a study of the techniques and equipment necessary for the artificial insemination in cattle. Principles involved in heat selection, bull selection, semen collection and storage, semen evaluation, insemination, record keeping, mating appraisal, and cleanup procedures will all be addressed in this course. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow

the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

SWPR1050 Swine Artificial Insemination (1 Credit) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. This course covers the study of the equipment necessary for artificial insemination in swine. Principles involved in heat detection, boar training, semen collection, semen evaluation, commercial semen, insemination, recordkeeping, and clean up procedures will all be addressed in this course. (Prerequisite: None)

SWPR1200 Swine Breeding Stock Management (3 Credits) - This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 Nursery Finish Management (3 Credits) - This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR1500 Swine Diseases (2 Credits) - This course is a review of all common swine diseases in relation to their economic significance, symptoms, transmission, prevention, and treatment. This course will consist primarily of disease prevention and the means required to promote productive livestock production. Some time will be spent on the analyzing of specific diseases, describing symptoms and treatment. Artificial immunization and sanitation and how they can be used for specific diseases will be covered. (Prerequisites: None)

SWPR2000 Swine Records and Analysis (3 Credits) - This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

Agronomy Emphasis

Choose 23 credits from the following courses:

AGBS2015 Commercial Driver's License (1 Credit) - Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGEC2450 Commodity Marketing Strategies (2 Credits) - This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

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PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 Precision Agriculture (3 Credits) - The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

PLSC2700 Advanced Agronomy (3 Credits) - This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

Diversified Emphasis

Choose 23 credits from the following departments AGECE, AGBS, AGRI, ANSC, MEAG, PLSC, SWPR

Sustainable Microfarming Emphasis

Required Emphasis Course

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

Choose 22 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGECE2650 Alternative Agriculture and Direct Marketing (3 Credits) - One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

ANSC1200 Livestock Lab (2 Credits) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

MEAG1610 Ag Equipment Maintenance (3 Credits) - This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

Viticulture Emphasis

Choose 23 credits from the courses below. VITI courses are taken through VESTA-USA.ORG

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

MEAG1700 Agricultural Industry Machinery Maintenance (3 Credits) - This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

PLSC2000 Commercial Pesticide License Training (1 Credit) - This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1112 Botanical Viticulture (4 Credits) - This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of

plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy. (Prerequisite: None)

VITI1190 Viticulture Safety (1 Credit) - This course is an introduction to the hazards and safety issues in grape-growing. This course will include an overview of general agricultural safety and health, ergonomics, personal protective equipment, Occupational Safety and Health Administration (OSHA) rules and regulations, and other issues unique to viticulture. (Prerequisites: None)

VITI1211 Integrated Pest Management (2 Credits) - Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

VITI1293 Soils for Viticulture (3 Credits) - The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. Upon completion of the course students will be able to select sites for a new vineyard, and help manage soils in existing vineyards. (Prerequisites: None)

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Professional Swine Manager - Certificate

19 Credits CERT3156, Academic Catalog 2024-2025

Developed in coordination with the National Pork Board and other ag industry leaders, the Professional Swine Manager certificate program provides all the skills and knowledge needed as a swine production technician or manager. With a focus on producing modern food products in the safest, most human, and environmentally sound manner as possible, you will be prepared for success in the swine industry.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (8 Courses)

Complete all of the following courses:

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

MEAG1500 Facility Maintenance (3 Credits) - This course covers...farm and residential electrical wiring. Practical 120/240 volt circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels included. Students will be wiring circuits according to code. Plumbing processes of Polyvinyl Chloride (PVC) and copper will be included. Another component of this class includes; OxyAcetylene welding, gas torch and/or plasma cutting and several forms of Arc welding. Students will spend time in the welding lab completing the required welds. Electrical and welding safety will be stressed. (Prerequisites: None).

SWPR1000 Introduction to U. S. Pork Production (2 Credits) - This course will provide an overview and introduction to the current U.S. Pork Industry. The course will cover industry trends and statistics, production systems, ethical production principles, Good Production Practices (GPP), and support systems. The course will also focus on health concerns, alternative production systems, production records and financial analysis. Additionally, a discussion on meat quality and consumer issues related to food safety and animal welfare will be addressed. Current industry issues related to the Show and Seed Stock businesses will be covered as well. (Prerequisites: None)

SWPR1050 Swine Artificial Insemination (1 Credit) - This course is designed to teach the fundamental principles of livestock genetics in a practical manner. This course covers the study of the equipment necessary for artificial insemination in swine. Principles involved in heat detection, boar training, semen collection, semen evaluation, commercial semen, insemination, recordkeeping, and clean up procedures will all be addressed in this course. (Prerequisite: None)

SWPR1200 Swine Breeding Stock Management (3 Credits) - This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 Nursery Finish Management (3 Credits) - This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR2000 Swine Records and Analysis (3 Credits) - This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

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Sustainable Microfarming - Certificate

16 Credits CERT3136, Academic Catalog 2024-2025

With a growing demand by customers to purchase food produced locally, the Sustainable Microfarming certificate program, includes all operational aspects of a small farm to fork business model. This is a unique opportunity to learn about high tunnel production, alternative agriculture methods and selling the food you produce.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Complete the following courses:

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGE2600 Title not found (0 Credits) - Description not available

AGBS1100 Agricultural Selling Skills (3 Credits) - This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

SGAG1000 Ag Orientation (1 Credit) - Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

Required Agribusiness Internship (4 Credits)

The internship experience is broken up over three semesters with 2 credits taken during the summer semester.

AGRI2780 Agribusiness Internship (1 - 9 Credits) - This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)

Elective Credits (5 Credits)

Complete 5 credits from any of these courses

AGRI1850 Employer/Employee Relations (3 Credits) - This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

VITI1111 Introduction to Viticulture and Vineyard (3 Credits) - This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1213 Regional Vineyard Management (2 Credits) - This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

ANSC1100 Livestock Production Principles (3 Credits) - This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology,

environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

ANSC2100 Principles of Animal Nutrition (3 Credits) - This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1105 Forages and Pasture Management (2 Credits) - This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 Soils II (3 Credits) - This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1400 Agronomy II (3 Credits) - This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

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Network Administration - Certificate

20 Credits CERT3297, Academic Catalog 2024-2025

This certificate provides learners with the skills they need to install, troubleshoot and support computers and servers in small to medium sized computer networks. Through hands-on experience building, configuring, and managing computer network hardware and software, learners will develop a broad background in networking technologies, administration, and support. Successful graduates will be ready to pursue careers in network support and administration, and the electives included in the program allow learners to custom design their certificate based on their needs and employment goals. In addition, the program prepares learners for a wide variety of industry certification exams, including Network+, Linux+, LPI, MCP, Security+ and VCP in the areas of Cisco Networking, Microsoft, Security, and Technical Support. Students can take these exams at the South Central College Testing Center.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Complete the following courses:

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2462 Microsoft Administration (4 Credits) - This course provides students with a comprehensive understanding of Microsoft Windows Server and prepares them to perform server administration. The class is based on the requirements of the Microsoft Certified Professional (MCP) credential and teaches the skills to successfully implement, manage, and troubleshoot Microsoft-Windows-based operating environments. Students apply their knowledge through hands-on projects and case study assignments, and learn how to install and administer Active Directory services and manage Active Directory objects. In addition, they learn how to implement and configure core services such as Networking, Storage, Active Directory Domain Services (ADDS), Group Policy, File and Print services, and Hyper-V. Finally, students learn how to install and administer network protocols and services such as virtual private networking, Routing and Remote Access Service, DHCP, and DNS. (Prerequisites: COMP 1360)

COMP2466 Routing & Switching (4 Credits) - This course addresses the integration of routing and switching technologies to create efficient enterprise networks. Students will learn to design, build, and configure a network. Students will configure routing protocols and perform LAN, WAN, and VLAN troubleshooting using a structured methodology based on the OSI model. Upon completing this course, the learner will be able to select and implement the appropriate Cisco IOS services required to build a scalable, efficient, and highly available network. This course helps students prepare for the CCNA (Cisco Certified Network Administrator) exam. (Prerequisite: COMP 1360)

COMP2475 Security Basics (4 Credits) - An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

Technical Electives (4 Credits)

Select one of the following courses:

COMP2456 Cloud Technologies and Services (4 Credits) - The Cloud Technologies and Services (CTS) course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and public / private cloud data center environments. These technologies include storage, networking, desktop and application virtualization. Fundamental models such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS) are explored. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for an organization. (Prerequisite: COMP 1200)

COMP2452 Information Storage and Management (4 Credits) - This course is designed to provide the student with a strong understanding of underlying storage technologies. This course will cover the varied components of modern information storage infrastructure, including virtual environments. Students will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking

technologies such as FC-SAN, IP-SAN, NAS, Object-based and unified storage; business continuity solutions such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. It provides comprehensive learning of storage technology, allowing the student to make more informed decisions in an increasingly complex IT environment. (Prerequisite: COMP 1200)

COMP2453 Virtualization Technologies (4 Credits) - The Virtualization Technologies course is designed to get students up to speed on one of the most important aspects of today's IT environment. This course covers the fundamental concepts, components, infrastructure, as well as security and privacy considerations for virtualization systems. Through lectures, discussions, demonstrations, and labs, students learn the skills and knowledge necessary to install, configure and manage virtual environments. Students will learn how to effectively plan, implement and manage Cloud Computing in virtual data centers and complete introductory coursework in Virtualization software. Topics will include creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. With additional effort, students can use this knowledge to pass the VCP Certification Exam. (Prerequisite: COMP 1200)

COMP2500 Emerging Technologies (4 Credits) - eCatalog Use Only

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

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Networking Services - Associate of Applied Science Degree

60 Credits AAS3277, Academic Catalog 2024-2025

This program prepares the learner with the core skills necessary for a technical support position with a focus on networking services. Training is emphasized in the areas of installing, maintaining, and troubleshooting personal computers, computer networks, and peripheral devices utilizing current industry hardware and software products. Learners also receive an orientation on IBM mid-range and mainframe computer systems that are frequently integrated into corporate networks. Hands-on labs are included in the curriculum to give learners exposure to current and upcoming technology.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete the following courses:

COMP1120 Foundations of Computing (4 Credits) - This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 Spreadsheet/Database Integration (4 Credits) - The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

COMP1130 Programming Fundamentals (4 Credits) - Programming Fundamentals teaches you how to design and develop small programs that solve different problems and implement ideas. In this class, you will discover how applications store and work with data, make decisions, and perform repetitive tasks. You will use and create functions, data structures, and objects, to represent the concepts from real life in your code. You will also use programming language libraries to develop efficient code that is easy to maintain. In the process of learning, we will emphasize testing, debugging, and scalability of your programs. (Prerequisites: COMP 1120 Foundations of Computing)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

Technical Electives (5 Courses)

Select any 5 courses from the following list.

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2462 Microsoft Administration (4 Credits) - This course provides students with a comprehensive understanding of Microsoft Windows Server and prepares them to perform server administration. The class is based on the requirements of the Microsoft Certified

Professional (MCP) credential and teaches the skills to successfully implement, manage, and troubleshoot Microsoft-Windows-based operating environments. Students apply their knowledge through hands-on projects and case study assignments, and learn how to install and administer Active Directory services and manage Active Directory objects. In addition, they learn how to implement and configure core services such as Networking, Storage, Active Directory Domain Services (ADDS), Group Policy, File and Print services, and Hyper-V. Finally, students learn how to install and administer network protocols and services such as virtual private networking, Routing and Remote Access Service, DHCP, and DNS. (Prerequisites: COMP 1360)

COMP2466 Routing & Switching (4 Credits) - This course addresses the integration of routing and switching technologies to create efficient enterprise networks. Students will learn to design, build, and configure a network. Students will configure routing protocols and perform LAN, WAN, and VLAN troubleshooting using a structured methodology based on the OSI model. Upon completing this course, the learner will be able to select and implement the appropriate Cisco IOS services required to build a scalable, efficient, and highly available network. This course helps students prepare for the CCNA (Cisco Certified Network Administrator) exam. (Prerequisite: COMP 1360)

COMP2475 Security Basics (4 Credits) - An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

COMP2456 Cloud Technologies and Services (4 Credits) - The Cloud Technologies and Services (CTS) course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and public / private cloud data center environments. These technologies include storage, networking, desktop and application virtualization. Fundamental models such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS) are explored. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for an organization. (Prerequisite: COMP 1200)

COMP2452 Information Storage and Management (4 Credits) - This course is designed to provide the student with a strong understanding of underlying storage technologies. This course will cover the varied components of modern information storage infrastructure, including virtual environments. Students will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking technologies such as FC-SAN, IP-SAN, NAS, Object-based and unified storage; business continuity solutions such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. It provides comprehensive learning of storage technology, allowing the student to make more informed decisions in an increasingly complex IT environment. (Prerequisite: COMP 1200)

COMP2453 Virtualization Technologies (4 Credits) - The Virtualization Technologies course is designed to get students up to speed on one of the most important aspects of today's IT environment. This course covers the fundamental concepts, components, infrastructure, as well as security and privacy considerations for virtualization systems. Through lectures, discussions, demonstrations, and labs, students learn the skills and knowledge necessary to install, configure and manage virtual environments. Students will learn how to effectively plan, implement and manage Cloud Computing in virtual data centers and complete introductory coursework in Virtualization software. Topics will include creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. With additional effort, students can use this knowledge to pass the VCP Certification Exam. (Prerequisite: COMP 1200)

COMP2500 Emerging Technologies (4 Credits) - eCatalog Use Only

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

Required Capstone (2 Credits)

Complete 2 credits:

COMP2498 Capstone - Networking Services (1 - 4 Credits) - This course is an opportunity for students to demonstrate that they have achieved the learning goals established by South Central College's Computer Careers Department. This course integrates learning from the courses in the major with the courses from the rest of the student's academic experience. It requires the application of that learning to a service learning project that meets the community need of providing technology assistance to lower income families. Students will gain real world experience using their troubleshooting skills to fix, upgrade and refurbish donated computers. These computers are then recycled back into the community to no-profit organizations and families in need. Students will have an opportunity for reflection through assignments that promote greater understanding of computer concepts and themselves. Students are strongly encouraged to "pass it on," by sharing their computer skills and knowledge through a mentoring process of community members and volunteers. This course will provide an environment, where students can develop a good balance between their technical and "soft" skills. It will include concepts such as team dynamics, conflict management, thinking "outside the box", working with diverse populations and developing professional attitudes and habits. (Prerequisite: Instructor Approval)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC goal areas. Select the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

OR

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MntC Goal Area 1 - Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

OR

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs.

Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

Elective Arts and Sciences

Choose an additional 4 credits from MNTC Goal Areas 2, 3, 5, 6, 7, 8, 9 or 10

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Networking Services - Diploma

60 Credits DIP3278, Academic Catalog 2024-2025

This program prepares the learner with the core skills necessary for a technical support position with a focus on networking services. Training is emphasized in the areas of installing, maintaining, and troubleshooting personal computers, computer networks, and peripheral devices utilizing current industry hardware and software products. Learners also receive an orientation on IBM mid-range and mainframe computer systems that are frequently integrated into corporate networks. Hands-on labs are included in the curriculum to give learners exposure to current and upcoming technology.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (11 Courses)

Complete the following courses:

COMP1120 Foundations of Computing (4 Credits) - This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 Spreadsheet/Database Integration (4 Credits) - The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

COMP1130 Programming Fundamentals (4 Credits) - Programming Fundamentals teaches you how to design and develop small programs that solve different problems and implement ideas. In this class, you will discover how applications store and work with data, make decisions, and perform repetitive tasks. You will use and create functions, data structures, and objects, to represent the concepts from real life in your code. You will also use programming language libraries to develop efficient code that is easy to maintain. In the process of learning, we will emphasize testing, debugging, and scalability of your programs. (Prerequisites: COMP 1120 Foundations of Computing)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2462 Microsoft Administration (4 Credits) - This course provides students with a comprehensive understanding of Microsoft Windows Server and prepares them to perform server administration. The class is based on the requirements of the Microsoft Certified Professional (MCP) credential and teaches the skills to successfully implement, manage, and troubleshoot Microsoft-Windows-based operating environments. Students apply their knowledge through hands-on projects and case study assignments, and learn how to install and administer Active Directory services and manage Active Directory objects. In addition, they learn how to implement and configure core services such as Networking, Storage, Active Directory Domain Services (ADDS), Group Policy, File and Print services, and Hyper-V. Finally, students learn how to install and administer network protocols and services such as virtual private networking, Routing and Remote Access Service, DHCP, and DNS. (Prerequisites: COMP 1360)

COMP2466 Routing & Switching (4 Credits) - This course addresses the integration of routing and switching technologies to create efficient enterprise networks. Students will learn to design, build, and configure a network. Students will configure routing protocols and perform LAN, WAN, and VLAN troubleshooting using a structured methodology based on the OSI model. Upon completing this course, the learner will be able to select and implement the appropriate Cisco IOS services required to build a scalable, efficient, and highly available network. This course helps students prepare for the CCNA (Cisco Certified Network Administrator) exam. (Prerequisite: COMP 1360)

COMP2475 Security Basics (4 Credits) - An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

COMP2453 Virtualization Technologies (4 Credits) - The Virtualization Technologies course is designed to get students up to speed on one of the most important aspects of today's IT environment. This course covers the fundamental concepts, components, infrastructure, as well as security and privacy considerations for virtualization systems. Through lectures, discussions, demonstrations, and labs, students learn the skills and knowledge necessary to install, configure and manage virtual environments. Students will learn how to effectively plan, implement and manage Cloud Computing in virtual data centers and complete introductory coursework in Virtualization software. Topics will include creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. With additional effort, students can use this knowledge to pass the VCP Certification Exam. (Prerequisite: COMP 1200)

Technical Electives (2 Courses)

You must complete two courses from the following list:

COMP2456 Cloud Technologies and Services (4 Credits) - The Cloud Technologies and Services (CTS) course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and public / private cloud data center environments. These technologies include storage, networking, desktop and application virtualization. Fundamental models such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS) are explored. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for an organization. (Prerequisite: COMP 1200)

COMP2452 Information Storage and Management (4 Credits) - This course is designed to provide the student with a strong understanding of underlying storage technologies. This course will cover the varied components of modern information storage infrastructure, including virtual environments. Students will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking technologies such as FC-SAN, IP-SAN, NAS, Object-based and unified storage; business continuity solutions such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. It provides comprehensive learning of storage technology, allowing the student to make more informed decisions in an increasingly complex IT environment. (Prerequisite: COMP 1200)

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

Required Arts and Sciences (2 Courses)

Complete the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

OR

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MnTC Goal Area 1 - Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

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Computer Assistant - Certificate

23 Credits CERT3279, Academic Catalog 2024-2025

This program prepares the learner with the core skills necessary for a technical support position with a focus on personal computer operations. Training is emphasized in the areas of installing, maintaining, and troubleshooting personal computers and peripheral devices utilizing current industry hardware and software products. Learners also receive an orientation on IBM midrange and mainframe computer systems that are frequently integrated into corporate networks. Hands-on labs are included in the curriculum to give students exposure to current and upcoming technology.

Students successfully completing this certificate will have satisfied the requirements of the first year of the Networking Services AAS degree.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete all of the following courses:

COMP1120 Foundations of Computing (4 Credits) - This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 Spreadsheet/Database Integration (4 Credits) - The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

COMP1130 Programming Fundamentals (4 Credits) - Programming Fundamentals teaches you how to design and develop small programs that solve different problems and implement ideas. In this class, you will discover how applications store and work with data, make decisions, and perform repetitive tasks. You will use and create functions, data structures, and objects, to represent the concepts from real life in your code. You will also use programming language libraries to develop efficient code that is easy to maintain. In the process of learning, we will emphasize testing, debugging, and scalability of your programs. (Prerequisites: COMP 1120 Foundations of Computing)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

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Web Programmer - Certificate

20 Credits CERT3261, Academic Catalog 2024-2025

This program is designed for the individual looking to expand their knowledge of web programming and applications. Learners will focus on skills and software that allow for the behind-the-scenes functions of a website. These courses may also be applied to the Information Systems AAS degree.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (5 Courses)

Complete all of the following courses:

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

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Cloud Computing and Virtualization - Certificate

20 Credits CERT3298, Academic Catalog 2024-2025

This certificate provides a complete introduction to Cloud Computing, virtualization, legacy hardware and software considerations and approaches to transitioning information technology from legacy systems to a shared managed service model. Through practical, hands-on activities, learners will explore the technical infrastructure and administrative requirements of server-based computing utilizing both open source and proprietary virtualization software. Prior to entry into this program, it is strongly recommended that learners should complete the Computer Assistant Certificate of have advanced computer literacy and/or IT related industry experience.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (3 Courses)

Complete the following courses:

COMP2456 Cloud Technologies and Services (4 Credits) - The Cloud Technologies and Services (CTS) course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and public / private cloud data center environments. These technologies include storage, networking, desktop and application virtualization. Fundamental models such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS) are explored. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for an organization. (Prerequisite: COMP 1200)

COMP2452 Information Storage and Management (4 Credits) - This course is designed to provide the student with a strong understanding of underlying storage technologies. This course will cover the varied components of modern information storage infrastructure, including virtual environments. Students will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking technologies such as FC-SAN, IP-SAN, NAS, Object-based and unified storage; business continuity solutions such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. It provides comprehensive learning of storage technology, allowing the student to make more informed decisions in an increasingly complex IT environment. (Prerequisite: COMP 1200)

COMP2453 Virtualization Technologies (4 Credits) - The Virtualization Technologies course is designed to get students up to speed on one of the most important aspects of today's IT environment. This course covers the fundamental concepts, components, infrastructure, as well as security and privacy considerations for virtualization systems. Through lectures, discussions, demonstrations, and labs, students learn the skills and knowledge necessary to install, configure and manage virtual environments. Students will learn how to effectively plan, implement and manage Cloud Computing in virtual data centers and complete introductory coursework in Virtualization software. Topics will include creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. With additional effort, students can use this knowledge to pass the VCP Certification Exam. (Prerequisite: COMP 1200)

Technical Electives (8 Credits)

Select two of the following courses:

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2462 Microsoft Administration (4 Credits) - This course provides students with a comprehensive understanding of Microsoft Windows Server and prepares them to perform server administration. The class is based on the requirements of the Microsoft Certified Professional (MCP) credential and teaches the skills to successfully implement, manage, and troubleshoot Microsoft-Windows-based operating environments. Students apply their knowledge through hands-on projects and case study assignments, and learn how to install and administer Active Directory services and manage Active Directory objects. In addition, they learn how to implement and configure core services such as Networking, Storage, Active Directory Domain Services (ADDS), Group Policy, File and Print services, and Hyper-V. Finally, students learn how to install and administer network protocols and services such as virtual private networking, Routing and Remote Access Service, DHCP, and DNS. (Prerequisites: COMP 1360)

COMP2466 Routing & Switching (4 Credits) - This course addresses the integration of routing and switching technologies to create efficient enterprise networks. Students will learn to design, build, and configure a network. Students will configure routing protocols and perform LAN, WAN, and VLAN troubleshooting using a structured methodology based on the OSI model. Upon completing this course, the learner will be

able to select and implement the appropriate Cisco IOS services required to build a scalable, efficient, and highly available network. This course helps students prepare for the CCNA (Cisco Certified Network Administrator) exam. (Prerequisite: COMP 1360)

COMP2475 Security Basics (4 Credits) - An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

COMP2500 Emerging Technologies (4 Credits) - eCatalog Use Only

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

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Information Systems - Associate of Applied Science Degree

60 Credits AAS3275, Academic Catalog 2024-2025

This program is designed to prepare the learner for a career as a computer programmer, programmer/analyst, database programmer, database administrator, technical writer, technical support specialist, help desk specialist, web designer, web developer, webmaster, software or software tester. The learner will receive a solid background in the basic concepts of computer programming, web page development, web server application development, management and maintenance of web servers, and electronic commerce concepts. The learner will be exposed to major programming languages, systems analysis and software design, computer operating systems, and Internet services.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete all of the following courses:

COMP1120 Foundations of Computing (4 Credits) - This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 Spreadsheet/Database Integration (4 Credits) - The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

COMP1130 Programming Fundamentals (4 Credits) - Programming Fundamentals teaches you how to design and develop small programs that solve different problems and implement ideas. In this class, you will discover how applications store and work with data, make decisions, and perform repetitive tasks. You will use and create functions, data structures, and objects, to represent the concepts from real life in your code. You will also use programming language libraries to develop efficient code that is easy to maintain. In the process of learning, we will emphasize testing, debugging, and scalability of your programs. (Prerequisites: COMP 1120 Foundations of Computing)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

Technical Electives (5 Courses)

Select any 5 courses from the following list.

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2500 Emerging Technologies (4 Credits) - eCatalog Use Only

Required Capstone (2 Credits)

Complete 2 credits:

COMP2496 Capstone - Software Development (1 - 4 Credits) - This course is used to assess and validate student learning and performance throughout the previous semesters as well as to give students an opportunity to practice their skills in a simulated business environment. It is also an opportunity for students to demonstrate that they have achieved the learning goals established by South Central College's Computer Careers Department. This course integrates learning from the courses in the major with the courses from the rest of the student's academic experience. Students will work in teams under the supervision of faculty members who will act as project managers. (Prerequisite: Instructor Approval)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal areas. Select the following required courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

OR

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MntC Goal Area 1 - Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

OR

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

Elective Arts and Sciences

Choose an additional 4 credits from MNTC Goal Areas 2,3,5,6,7,8,9 or 10.

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Information Systems - Diploma

60 Credits DIP3276, Academic Catalog 2024-2025

This program is designed to prepare the learner for a career as a computer programmer, programmer/analyst, database programmer, database administrator, technical writer, technical support specialist, help desk specialist, web designer, web developer, webmaster, software or software tester. The learner will receive a solid background in the basic concepts of computer programming, web page development, web server application development, management and maintenance of web servers, and electronic commerce concepts. The learner will be exposed to major programming languages, systems analysis and software design, computer operating systems, and Internet services.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete all of the following courses:

COMP1120 Foundations of Computing (4 Credits) - This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 Spreadsheet/Database Integration (4 Credits) - The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

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COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

Technical Electives (5 Courses)

Choose 5 courses from the following list:

COMP2145 Web Programming (4 Credits) - This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 Web Services (4 Credits) - This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IOT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 Java (4 Credits) - This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 Software Development (4 Credits) - Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program. (Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

Additional Technical Electives (2 Courses)

Choose two courses from the following:

COMP2460 Linux Administration (4 Credits) - The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2475 Security Basics (4 Credits) - An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

Required Capstone (2 Credits)

Complete 2 credits:

COMP2496 Capstone - Software Development (1 - 4 Credits) - This course is used to assess and validate student learning and performance throughout the previous semesters as well as to give students an opportunity to practice their skills in a simulated business environment. It is also an opportunity for students to demonstrate that they have achieved the learning goals established by South Central College's Computer Careers Department. This course integrates learning from the courses in the major with the courses from the rest of the student's academic experience. Students will work in teams under the supervision of faculty members who will act as project managers. (Prerequisite: Instructor Approval)

Required Arts and Sciences (2 Courses)

Select the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

OR

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MntC Goal Area 1 - Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

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Graphic Arts - Certificate

24 Credits CERT3002, Academic Catalog 2024-2025

In today's fast-paced media-driven culture, graphic communications is becoming our go-to medium when it comes to communicating with each other. Whether in business, education, entertainment, government, or the nonprofit world, graphic communications is utilized in important, impactful ways. As a Graphic Communications student, you will learn to express, produce, and print your passion.

Graphic communications is referred to as visual communications and can be defined in the simplest terms as any form of communication that relies on visual cues to transmit powerful, engaging messages. This ever-changing industry encompasses large format, screen, and digital printing. You will learn creative design, illustration, web design, magazine, newspaper, book publishing, photography, and a host of other creative, business, and production services.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (24 Credits)

Complete the following courses:

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

GCC1100 Introduction to Graphic Communications (4 Credits) - This is an exploratory course covering many aspects of Graphic Communications. Hands-on projects will acquaint the learner with the various processes that encompass what graphic communications means to the general population. History of graphic communications, industry jargon, industry tours and guest speakers are also part of this course. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading Score 36 or higher or MCA Reading score of 750 or higher)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 Layout and Typography (3 Credits) - Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1215 Drawing Foundations for Graphic Communications (3 Credits) - This course covers basic drawing fundamentals and the use of drawing as a planning tool. Basic drawing techniques will be used to create thumbnail sketches, comprehensives and digital illustrations. Students will utilize traditional and computer drawing tools. (Prerequisite: GCC 1120)

GCC1220 Graphic Software 2 (4 Credits) - Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC2150 Web/Interactive Media 2 (3 Credits) - This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

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Graphic Communications - Associate of Applied Science Degree

72 Credits AAS3493, Academic Catalog 2024-2025

Graphic Communications is an ever-changing industry that encompasses magazine, newspaper and book printing, digital publishing, creative design, illustration, web page design, large format and digital printing and a host of other services according to the Print and Graphics Scholarship Foundation

As a student in the Graphic Communications program, you will be developing the creative side of yourself while carrying out your creativity in an actual production setting. The program offers training and instruction for students interested in graphic design, graphic production, web design and animation media.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete the following courses:

GCC1100 Introduction to Graphic Communications (4 Credits) - This is an exploratory course covering many aspects of Graphic Communications. Hands-on projects will acquaint the learner with the various processes that encompass what graphic communications means to the general population. History of graphic communications, industry jargon, industry tours and guest speakers are also part of this course. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading Score 36 or higher or MCA Reading score of 750 or higher)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 Layout and Typography (3 Credits) - Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1145 Color Applications and Digital Tools (3 Credits) - This course is designed to cover basic topics which include input/output hardware and the software involved: basic scanning of graphics and photographs; basic digital camera usage; and file formats, size and resolution comparisons. Additionally, students will cover the basics of color theory and color management with practical knowledge for print and web. The course is taught in a hands-on atmosphere with an emphasis on the different methods of output to various devices and their effect on the digitized image. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score 36 or higher or MCA Reading score of 750 or higher)

GCC1215 Drawing Foundations for Graphic Communications (3 Credits) - This course covers basic drawing fundamentals and the use of drawing as a planning tool. Basic drawing techniques will be used to create thumbnail sketches, comprehensives and digital illustrations. Students will utilize traditional and computer drawing tools. (Prerequisite: GCC 1120)

GCC1220 Graphic Software 2 (4 Credits) - Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC1260 Printing Processes (4 Credits) - This course is designed to acquaint the learner with the fundamentals of printing ink on various substrates. Coursework includes terminology, equipment and safety. The principles of offset lithography, screen, laser and inkjet printing are stressed in a hands-on laboratory atmosphere. Basic prep and post-press processes are also stressed in this course. (Prerequisites: GCC 1120 Graphic Software 1, GCC 1130 Layout and Typography)

GCC2110 Design and Illustration 1 (4 Credits) - Students will learn planning procedures for advanced design, illustration and production principles on the board and in the use of various software. Projects may include brochure, package and logo design, variable data layouts, product photography planning, and preparing social media content. Color, preflight, output and live industry work will also be covered in this course. The advanced use of industry-used software will be essential in all assignments. (Prerequisites: GCC 1210 OR GCC 1215 AND GCC 1220)

GCC2120 Portfolio 1 (3 Credits) - Students will design personal business logos and stationery ensembles which will include stationery, cover letters and resumes. Traditional portfolio page layouts will be designed and revised throughout the semester. Student work will be prepared for display in their portfolios. (Prerequisite: GCC 1220 Graphic Software 2)

GCC2150 Web/Interactive Media 2 (3 Credits) - This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

GCC2161 Production Work Flow 1 (3 Credits) - This course is designed to introduce the Graphic Communications student to the workplace through tours, live projects, and special topics. Students will perform production tasks of design work of the student and/or live work of a customer within the college or non-profit entities within the community. These hands-on projects will incorporate all phases of graphic communications from design to workflow to production and finishing. Emerging technology and topics will also be discussed and researched as part of this course. (Prerequisites: GCC 1220 and GCC 1260)

GCC2210 Design and Illustration 2 (4 Credits) - This course is a continuation of GCC 2110 Design and Illustration 1. Students will work in a hands-on atmosphere with higher-level projects such as packaging layouts, multi-page layouts and large format printing. The advanced use of industry-used software will be essential in all assignments. (Prerequisite: GCC 2110)

GCC2220 Portfolio 2 (3 Credits) - Students will continue to research potential employment sites and prepare for the interviewing process in the graphic communications field. The students will continue to research, update and expand their portfolios with projects from other Graphic Communications courses as they prepare for graduation and entering the job market. (Prerequisite: GCC 2120 Portfolio 1)

GCC2250 Web/Interactive Media 3 (3 Credits) - This course builds on the course work covered in GCC 2150. The capabilities of different web and interactive applications will continue to be explored. Students will finalize their webfolios, and design other various promotional web and interactive projects. (Prerequisite GCC 2150 Web/Interactive Media 2)

GCC2261 Production Work Flow 2 (3 Credits) - This course is a continuation of GCC2161 - Production Work Flow 1. Students will work on production projects that will incorporate all phases of graphic communications from design to workflow to production to finishing. Fourth semester Graphic Communications students prepare materials to promote their annual spring display of work through various communication methods. Students continue to formulate their problem-solving, team-building and lifelong learning skills through this course. (Prerequisites: GCC 2161)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

Technical Courses (Optional)

The following courses are not required but are optional courses which may be beneficial to you in this career field. You will graduate from this program even if you do not complete these courses.

GCC2275 Special Problems (1 - 4 Credits) - The student will propose and produce a project in their area of interest. (Prerequisite: GCC 1220 Graphic Software 2 OR advisor approval)

GCC2290 Graphic Communications Internship (1 - 3 Credits) - This course is designed to provide the student with a purposeful occupational experience in the Graphic Communications field. Each internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. One credit of Internship is equal to 48 hours. (Prerequisites: GCC 1210 Drawing for Graphic Designers OR GCC 1215 Drawing Foundations for Graphic Communications; GCC 1220 Graphic Software 2; and GCC 1260 Printing Processes; OR advisor approval)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 18 MnTC credits from 3 of the 10 MnTC goal areas. Select the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

OR

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their

communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ART130 Painting (3 Credits) - Painting is an introductory studio course in the elements of traditional and contemporary oil painting. Students will explore and discuss the various techniques and methods basic to the creation of paintings. Students will participate in the discussions and critiques of traditional and contemporary paintings and explore the creative process via the medium of oil paint. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

OR

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

OR

ART150 Drawing I (3 Credits) - This drawing course will further the students' understanding of the core elements of drawing: line, composition, perspective, proportion, texture, value, and shading. These drawing elements will be taught through both traditional and modern methods. The course will also include several short lectures to give examples of the work, and to expand art appreciation. There will be a strong emphasis on the student's ability to critique their own work along with their peers. The dialogue within the classroom will help to expand the student's skills and process. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

Elective Arts and Sciences

Select 8 additional MNTC credits from goals 1 - 10. The following courses are recommended: PSYC100, SOC100, ART100, ENGL130, PHIL100 and PHIL 215.

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Graphic Communications - Diploma

60 Credits DIP3494, Academic Catalog 2024-2025

Graphic Communications is an ever-changing industry that encompasses magazine, newspaper and book printing, digital publishing, creative design, illustration, web page design, large format and digital printing and a host of other services according to the Print and Graphics Scholarship Foundation

As a student in the Graphic Communications program, you will be developing the creative side of yourself while carrying out your creativity in an actual production setting. The program offers training and instruction for students interested in graphic design, graphic production, web design, and animation media.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete the following courses:

GCC1100 Introduction to Graphic Communications (4 Credits) - This is an exploratory course covering many aspects of Graphic Communications. Hands-on projects will acquaint the learner with the various processes that encompass what graphic communications means to the general population. History of graphic communications, industry jargon, industry tours and guest speakers are also part of this course. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading Score 36 or higher or MCA Reading score of 750 or higher)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 Layout and Typography (3 Credits) - Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1145 Color Applications and Digital Tools (3 Credits) - This course is designed to cover basic topics which include input/output hardware and the software involved: basic scanning of graphics and photographs; basic digital camera usage; and file formats, size and resolution comparisons. Additionally, students will cover the basics of color theory and color management with practical knowledge for print and web. The course is taught in a hands-on atmosphere with an emphasis on the different methods of output to various devices and their effect on the digitized image. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score 36 or higher or MCA Reading score of 750 or higher)

GCC1215 Drawing Foundations for Graphic Communications (3 Credits) - This course covers basic drawing fundamentals and the use of drawing as a planning tool. Basic drawing techniques will be used to create thumbnail sketches, comprehensives and digital illustrations. Students will utilize traditional and computer drawing tools. (Prerequisite: GCC 1120)

GCC1220 Graphic Software 2 (4 Credits) - Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC1260 Printing Processes (4 Credits) - This course is designed to acquaint the learner with the fundamentals of printing ink on various substrates. Coursework includes terminology, equipment and safety. The principles of offset lithography, screen, laser and inkjet printing are stressed in a hands-on laboratory atmosphere. Basic prep and post-press processes are also stressed in this course. (Prerequisites: GCC 1120 Graphic Software 1, GCC 1130 Layout and Typography)

GCC2110 Design and Illustration 1 (4 Credits) - Students will learn planning procedures for advanced design, illustration and production principles on the board and in the use of various software. Projects may include brochure, package and logo design, variable data layouts, product photography planning, and preparing social media content. Color, preflight, output and live industry work will also be covered in this course. The advanced use of industry-used software will be essential in all assignments. (Prerequisites: GCC 1210 OR GCC 1215 AND GCC 1220)

GCC2120 Portfolio 1 (3 Credits) - Students will design personal business logos and stationery ensembles which will include stationery, cover letters and resumes. Traditional portfolio page layouts will be designed and revised throughout the semester. Student work will be prepared for display in their portfolios. (Prerequisite: GCC 1220 Graphic Software 2)

GCC2150 Web/Interactive Media 2 (3 Credits) - This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

GCC2161 Production Work Flow 1 (3 Credits) - This course is designed to introduce the Graphic Communications student to the workplace through tours, live projects, and special topics. Students will perform production tasks of design work of the student and/or live work of a customer within the college or non-profit entities within the community. These hands-on projects will incorporate all phases of graphic communications from design to workflow to production and finishing. Emerging technology and topics will also be discussed and researched as part of this course. (Prerequisites: GCC 1220 and GCC 1260)

GCC2210 Design and Illustration 2 (4 Credits) - This course is a continuation of GCC 2110 Design and Illustration 1. Students will work in a hands-on atmosphere with higher-level projects such as packaging layouts, multi-page layouts and large format printing. The advanced use of industry-used software will be essential in all assignments. (Prerequisite: GCC 2110)

GCC2220 Portfolio 2 (3 Credits) - Students will continue to research potential employment sites and prepare for the interviewing process in the graphic communications field. The students will continue to research, update and expand their portfolios with projects from other Graphic Communications courses as they prepare for graduation and entering the job market. (Prerequisite: GCC 2120 Portfolio 1)

GCC2250 Web/Interactive Media 3 (3 Credits) - This course builds on the course work covered in GCC 2150. The capabilities of different web and interactive applications will continue to be explored. Students will finalize their webfolios, and design other various promotional web and interactive projects. (Prerequisite GCC 2150 Web/Interactive Media 2)

GCC2261 Production Work Flow 2 (3 Credits) - This course is a continuation of GCC2161 - Production Work Flow 1. Students will work on production projects that will incorporate all phases of graphic communications from design to workflow to production to finishing. Fourth semester Graphic Communications students prepare materials to promote their annual spring display of work through various communication methods. Students continue to formulate their problem-solving, team-building and lifelong learning skills through this course. (Prerequisites: GCC 2161)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

Technical Courses (Optional)

The following courses are not required but are optional courses which may be beneficial to you in this career field. You will graduate from this program even if you do not complete these courses.

GCC2275 Special Problems (1 - 4 Credits) - The student will propose and produce a project in their area of interest. (Prerequisite: GCC 1220 Graphic Software 2 OR advisor approval)

GCC2290 Graphic Communications Internship (1 - 3 Credits) - This course is designed to provide the student with a purposeful occupational experience in the Graphic Communications field. Each internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. One credit of Internship is equal to 48 hours. (Prerequisites: GCC 1210 Drawing for Graphic Designers OR GCC 1215 Drawing Foundations for Graphic Communications; GCC 1220 Graphic Software 2; and GCC 1260 Printing Processes; OR advisor approval)

Required Arts and Sciences (2 Courses)

Complete the following courses:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

OR

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ART130 Painting (3 Credits) - Painting is an introductory studio course in the elements of traditional and contemporary oil painting. Students will explore and discuss the various techniques and methods basic to the creation of paintings. Students will participate in the discussions and

critiques of traditional and contemporary paintings and explore the creative process via the medium of oil paint. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

OR

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

OR

ART150 Drawing I (3 Credits) - This drawing course will further the students' understanding of the core elements of drawing: line, composition, perspective, proportion, texture, value, and shading. These drawing elements will be taught through both traditional and modern methods. The course will also include several short lectures to give examples of the work, and to expand art appreciation. There will be a strong emphasis on the student's ability to critique their own work along with their peers. The dialogue within the classroom will help to expand the student's skills and process. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

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Photography - Certificate

23 Credits CERT3000, Academic Catalog 2024-2025

The Photography Certificate at South Central College is a fast-paced technology program. This certificate provides learners with design and software skills that sequence digital art courses, which emphasize artistic expression while building lighting, visual, and interpretive skills in photography. This certificate covers the camera's fundamental and creative aspects, lighting, digital imaging, critical history of photography, online presentation, and portfolio development. Learners enrolled in this program will benefit from personalized attention, current computer labs, and workstations set in a comfortable and relaxed atmosphere for learning new design techniques.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (23 Credits)

Complete the following courses:

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART240 Digital Photography 2 (3 Credits) - This course will introduce the student to both the practical and theoretical application of controlling the digital photographer's most important tool, light. The course will deal with, through the use of light modifying devices and software, how to control the direction, quantity, quality, ratio and color of light for both outdoor (natural) and indoor (existing) light. Students enrolled in this course will study advanced lighting techniques, contemporary practices and theories in digital photography. Students will work with intermediate and advanced digital imaging software. This course will emphasize the student's development of individual artistic voice applied in a portfolio of digital photographic images. Students enrolling in this course are required to supply their own digital camera, tripod, image editing software, and lighting equipment as specified in the course syllabus. Image editing software will also be available for use in the open computer lab at South Central College's North Mankato campus. (Prerequisite: ART 140 or instructor approval) (MNTC 6: Humanities and Fine Arts)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 Layout and Typography (3 Credits) - Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1220 Graphic Software 2 (4 Credits) - Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC2150 Web/Interactive Media 2 (3 Credits) - This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

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Multimedia Technology - Associate of Science

60 Credits AS3284*, Academic Catalog 2024-2025

This program is no longer accepting applications

****New applications are no longer being accepted for this award.****

The Multimedia Technology program at South Central College is a fast-paced technology- and culture-driven major. This program provides learners with design and software skills that will enable them to develop work that utilizes animation, graphics, illustration, videography, photography and user interactivity. Using a project-oriented approach, the Multimedia Technology program aims to develop and nurture the creativity, passion and industry knowledge required for meaningful employment in computer-aided multimedia design. Learners enrolled in this program will benefit from personalized attention, current computer labs, and work stations set in a comfortable and relaxed atmosphere for learning new design techniques and exploring new media elements.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (6 Courses)

Complete the following courses:

GCC1120 Graphic Software 1 (4 Credits) - This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 Layout and Typography (3 Credits) - Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1220 Graphic Software 2 (4 Credits) - Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC2150 Web/Interactive Media 2 (3 Credits) - This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

GCC2250 Web/Interactive Media 3 (3 Credits) - This course builds on the course work covered in GCC 2150. The capabilities of different web and interactive applications will continue to be explored. Students will finalize their webfolios, and design other various promotional web and interactive projects. (Prerequisite GCC 2150 Web/Interactive Media 2)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

Complete two of the following courses: (2 Courses)

Complete 2 courses:

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1840 Principles of Advertising (3 Credits) - This course provides a broad overview of the entire advertising and sales promotion industry. The focus will cover the entire spectrum of paid and non-paid activities designed to encourage the purchase and use of products,

services and ideas. Discussion will include theory and practice about advertising media, public relations, packaging, special events, creation of ads and evaluation.

Internship/Capstone (4 Credits)

Complete 4 credits of one or a combination of the following two courses:

MULT2295 Multimedia Technology Internship (1 - 4 Credits) - This course is designed to provide the student with a purposeful occupational experience in the Multimedia Technology field. Each internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. One credit of Internship is equal to 48 hours. (Prerequisites: ART 140 Digital Photography 1 and ART 170 Video Production 1, OR instructor permission)

MULT2285 Multimedia Technology Capstone (1 - 4 Credits) - The student will propose and produce a project in their area of interest. This plan is based on the college's and the program's core competencies. One credit of Capstone is equal to 32 hours. (Prerequisites: ART 140 Digital Photography 1 and ART 170 Video Production 1, OR instructor permission)

Required Arts and Sciences (6 Courses)

To complete the Multimedia Technology AS Degree, students must complete 30 MNTC credits from 6 of the 10 MNTC Goal Areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

OR

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART170 Digital Video Production (3 Credits) - This course introduces students to the fundamentals of digital video production. Students will learn how to produce digital video productions utilizing story-boarding, lighting and shooting techniques. Students will use video and audio editing software to import, assemble and edit clips, add transitions, create super-impositions and titles in finished video productions. In addition, they will learn hardware set-up, capturing techniques and video compression schemes as they output their work to various video formats. The course also examines the history and application of video in contemporary art, documentary, film and television production. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART240 Digital Photography 2 (3 Credits) - This course will introduce the student to both the practical and theoretical application of controlling the digital photographer's most important tool, light. The course will deal with, through the use of light modifying devices and software, how to control the direction, quantity, quality, ratio and color of light for both outdoor (natural) and indoor (existing) light. Students enrolled in this course will study advanced lighting techniques, contemporary practices and theories in digital photography. Students will work with intermediate and advanced digital imaging software. This course will emphasize the student's development of individual artistic voice applied in a portfolio of digital photographic images. Students enrolling in this course are required to supply their own digital camera, tripod, image editing software, and lighting equipment as specified in the course syllabus. Image editing software will also be available for use in the open computer lab at South Central College's North Mankato campus. (Prerequisite: ART 140 or instructor approval) (MNTC 6: Humanities and Fine Arts)

ART270 Digital Video Production 2 (3 Credits) - This course covers advanced digital video techniques including scripting, lighting, shooting, editing and the overall video/audio production sequence. Students will develop advanced skills for any profession that involves video production such as television, documentation, filmmaking, contemporary art, web design, multimedia communication, animation and computer gaming. Students will use advanced non-linear video and audio editing software. Final project is a video series or single production of substantial length within the field of artistic, commercial and/or documentary video. Students will examine and utilize advanced application of cinematic philosophy, production techniques and technologies in the fields of film, videography, documentary production, and multimedia. This course also covers the current visual culture and how it applies to a digital cinematic/video production. Students will participate as a member of a production crew on college productions when available. (Prerequisite: a grade of C or higher in ART 170 or instructor permission) (MNTC 6: Humanities and Fine Arts)

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

OR

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

Arts and Sciences Electives

Select an additional 11-12 credits to fulfill three other MNTC Goal Areas (MNTC Goals 2,3,4,5,7,8,10).

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Architectural Technology

17 Credits CERT3554, Academic Catalog 2024-2025

This certificate is an introduction to the Architecture, Engineering, and Construction industry. A stackable credential towards the AAS of Architectural Drafting and Design, this program covers the basics of the AEC industry software fundamentals, application practice of software, and construction principles.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (7 Courses)

Complete all of the following courses:

ARCH1100 Introduction to Architectural Drafting and Design (1 Credit) - An overview of academic preparation and career opportunities in the fields of Architecture, Engineering and Construction as they pertain to the role of technical drafting, construction document production, architectural marketing and building product manufacturing.

ARCH1101 Studio 1 (4 Credits) - An introductory studio course developing a set of working drawings for a residential construction project. Course topics include the history of drafting, drafting views, basic drafting techniques, measuring, residential terminology, basic document production and best practices. Emphasis on document production for wood-frame construction and the application of Computer Aided Drafting (CAD) software into the design process. This course advances to explore multi-family construction concepts, design considerations and code implications. An examination of the coordination and drafting of civil engineering information for residential design is included. (Prerequisites: None)

ARCH1102 AutoCAD Architecture (2 Credits) - This introductory Computer Aided Drafting (CAD) course explores AutoCAD Architecture beginning with basic AutoCAD tools and advancing to AutoCAD Architecture tools. CAD management concepts and exploring AutoCAD Architecture 3D are included. (Prerequisites: None)

ARCH1103 Materials & Methods 1 (2 Credits) - An exploration of building materials used in commercial and residential construction. Common building materials such as wood, masonry, concrete, and metals will be examined. Basic building methods such as foundation systems, framing systems, and windows-door systems are analyzed. Introduction to architectural detail drafting and software detail component libraries are included. (Prerequisites: None)

ARCH1201 Studio 2 (4 Credits) - An introductory studio course developing a set of working drawings for a light commercial construction project. Course topics include commercial construction principles, commercial terminology, document management, advanced document production and best practices. Emphasis on document production for steel-frame construction and the application of Computer Aided Drafting (CAD) and Building Information Modeling (BIM) software into the design process. An introduction to the incorporation of state and local building code as they pertain to architectural design is included. (Prerequisite: ARCH 1101) (Co-Requisites: ARCH 1202 and ARCH 1203)

ARCH1202 Revit 1 Fundamentals (2 Credits) - Introductory Building Information Modeling (BIM) course that explores Revit for Architecture. An in-depth practice of basic Revit tools as they pertain to modeling basics, drafting views, detail creation, construction documentation, and renderings. A strong emphasis on industry standards and best practice for BIM. (Prerequisites: ARCH 1101) (Co-requisite: ARCH 1201)

ARCH1203 Materials & Methods 2 (2 Credits) - A continued exploration of building assemblies used in construction. Common building methods such as concrete, structural steel, light-gauge steel framing, and membrane roofing are examined. Commercial applications of fabricated stair/railings and elevator systems are analyzed. A strong emphasis on architectural detail drafting and full unitization of software detail component libraries. Coordination and drafting of civil engineering information for commercial architecture is also included. (Prerequisite: ARCH 1103) (Co-Requisite: ARCH 1201)

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Architectural Drafting and Design - Diploma

32 Credits DIP3498, Academic Catalog 2024-2025

This program prepares students for application of basic technical skills in support of Architects engaged in designing/developing commercial buildings.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (10 Courses)

You must complete all of the following courses:

BDET1100 Introduction to Building Design and Energy Technology (1 Credit) - Overview of academic preparation and career opportunities in the field of: Architectural, Mechanical-Electrical-Plumbing (MEP), structural, building design and energy technology. (Prerequisite: None)

BDET1110 Studio I (4 Credits) - This is an introductory studio course for students interested in Building Design and Energy Technology. Studio I includes a combination of sketching and electronic drawing software applications. This course will cover, sketching techniques, dimensions, notations, organization, and measuring. This class advances into drawing a commercial wood-frame construction project while incorporating electronic drawing software into the design process. (Prerequisite: None)

BDET1120 Estimating Concepts (2 Credits) - This course covers principles of quantity takeoffs, identification of symbols, and computation of materials from a set of commercial construction working drawings utilizing the CSI divisions. (Prerequisite: None)

BDET1130 Materials and Methods (3 Credits) - The basic construction methods and materials used in building technologies are examined. Common building materials such as wood, masonry, concrete, and metals will be analyzed as it relates to commercial applications. The classification of materials and project delivery systems; application of principles of building science to construction sites; relationship between technology and sustainability will be addressed. (Prerequisite: None)

BDET1150 AutoCAD (2 Credits) - This is an introductory 2D computer-aided drafting course that takes a practical hands-on approach to the use, operations, and methods of AutoCAD. It includes the following: drafting, line types, line widths, accuracy, and dimensioning, editing, drawing setup, scaling, and plotting. (Prerequisite: None)

BDET1210 Studio II (4 Credits) - This course covers the materials, methods, and construction principles of a commercial project. Electronic drawing software and hand drawing will be utilized. Independent work, critical thinking, problem solving, and application are emphasized. A set of working drawings will be drawn incorporating construction documents. (Prerequisites: BDET 1110, 1150)

BDET1230 Materials and Methods II (3 Credits) - Construction methods and materials utilized in building technologies will be examined in detail. Building materials such as wood, masonry, concrete, and metals will be analyzed as it relates to commercial applications. This application will be by a single building material and/or as an assembly (e.g. wall section). The classification of materials and project delivery systems; application of principles of building science to construction sites; relationship between technology and sustainability will also be addressed. (Prerequisites: BDET 1130)

BDET1240 Construction Documents (2 Credits) - This course provides an overview of construction documents including working drawings, specifications, and other contract documents. Emphasis on the development of project manual, legal and ethical aspects, and divisions of work. (Prerequisites: BDET 1110)

BDET1250 Revit (2 Credits) - This is an introductory 3D computer-aided course that takes a practical hands-on approach to the use, operations, and methods of Revit. It includes the following: detailing and drafting views, construction documentation, and the basics of building modeling. (Prerequisites: BDET 1110, 1150)

BDET1260 Special Topics in Environmental Design (1 Credit) - This course will provide an understanding of addressing surrounding environmental parameters. These parameters may result when devising plans, programs, policies, buildings or products. The course will also provide an introduction to the human-designed environment. This introduction will relate to interdisciplinary areas such as architecture, urban planning, and product design and sustainability issues. (Prerequisite: BDET 1110)

Required Arts and Sciences (8 Credits)

Please complete both of the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or

higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

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Architectural Drafting and Design - Associate of Applied Science Degree

60 Credits AAS3496, Academic Catalog 2024-2025

This program prepares students for application of basic technical skills in support of Architects engaged in designing/developing commercial buildings.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (18 Courses)

You must complete all of the following courses:

ARCH1100 Introduction to Architectural Drafting and Design (1 Credit) - An overview of academic preparation and career opportunities in the fields of Architecture, Engineering and Construction as they pertain to the role of technical drafting, construction document production, architectural marketing and building product manufacturing.

ARCH1101 Studio 1 (4 Credits) - An introductory studio course developing a set of working drawings for a residential construction project. Course topics include the history of drafting, drafting views, basic drafting techniques, measuring, residential terminology, basic document production and best practices. Emphasis on document production for wood-frame construction and the application of Computer Aided Drafting (CAD) software into the design process. This course advances to explore multi-family construction concepts, design considerations and code implications. An examination of the coordination and drafting of civil engineering information for residential design is included. (Prerequisites: None)

ARCH1102 AutoCAD Architecture (2 Credits) - This introductory Computer Aided Drafting (CAD) course explores AutoCAD Architecture beginning with basic AutoCAD tools and advancing to AutoCAD Architecture tools. CAD management concepts and exploring AutoCAD Architecture 3D are included. (Prerequisites: None)

ARCH1103 Materials & Methods 1 (2 Credits) - An exploration of building materials used in commercial and residential construction. Common building materials such as wood, masonry, concrete, and metals will be examined. Basic building methods such as foundation systems, framing systems, and windows-door systems are analyzed. Introduction to architectural detail drafting and software detail component libraries are included. (Prerequisites: None)

ARCH1104 Construction Documents (2 Credits) - This course provides an overview of the documents used in Architecture, Engineering, and Construction. Discussion topics include the design process, phases of design, contract terminology and CSI (Construction Specifications Institute) Divisions. Emphasis on examining the industry standards used in all aspects of document production. An exploration of estimating for budget using principles of quantity takeoffs and computation of materials is included.

ARCH1201 Studio 2 (4 Credits) - An introductory studio course developing a set of working drawings for a light commercial construction project. Course topics include commercial construction principles, commercial terminology, document management, advanced document production and best practices. Emphasis on document production for steel-frame construction and the application of Computer Aided Drafting (CAD) and Building Information Modeling (BIM) software into the design process. An introduction to the incorporation of state and local building code as they pertain to architectural design is included. (Prerequisite: ARCH 1101) (Co-Requisites: ARCH 1202 and ARCH 1203)

ARCH1202 Revit 1 Fundamentals (2 Credits) - Introductory Building Information Modeling (BIM) course that explores Revit for Architecture. An in-depth practice of basic Revit tools as they pertain to modeling basics, drafting views, detail creation, construction documentation, and renderings. A strong emphasis on industry standards and best practice for BIM. (Prerequisites: ARCH 1101) (Co-requisite: ARCH 1201)

ARCH1203 Materials & Methods 2 (2 Credits) - A continued exploration of building assemblies used in construction. Common building methods such as concrete, structural steel, light-gauge steel framing, and membrane roofing are examined. Commercial applications of fabricated stair/railings and elevator systems are analyzed. A strong emphasis on architectural detail drafting and full unitization of software detail component libraries. Coordination and drafting of civil engineering information for commercial architecture is also included. (Prerequisite: ARCH 1103) (Co-Requisite: ARCH 1201)

ARCH1204 Building Codes (2 Credits) - An exploration of state and local building codes as they relate to the residential and commercial building sector. Students will develop an understanding of the current Minnesota Building Code (IBC), Minnesota Residential Code (IRC), Minnesota Accessibility Code (ADA), and Minnesota Energy Code. Emphasis on the process of analyzing and applying the building code for architectural design and document production. (Prerequisites: None)

ARCH1301 Studio 3 (4 Credits) - An advanced studio course developing a coordinated set of working drawings for a heavy commercial construction project. This course will advance students' knowledge of commercial construction principles, the applications of architectural and engineering systems, and the scheduling/management of construction document preparation. The research/incorporation of applicable codes shall be major factors in developing this set of construction documents. A progression to advanced Building Information Modeling (BIM) strategies will be incorporated. Emphasis on critical thinking, problem solving, and software application. (Prerequisite: ARCH 1201)

ARCH1302 Revit 2 BIM Management (2 Credits) - Intermediate building information modeling (BIM) course that expands on Revit for Architecture. Focus on establishing company standards and an in-depth practice of template creation. Deep exploration of Revit families, custom family creation, and the practice of creating parametric entities. Discussion of online Revit content resources is also included. (Prerequisite: ARCH 1202)

ARCH1303 MEP Integration (2 Credits) - This course reviews the examination of mechanical, plumbing and electrical systems in both residential and commercial buildings. Content includes analysis of plumbing and heating, ventilation and air conditioning (HVAC) systems, and power and lighting systems. The interrelationship of architecture and the engineering functions is explored.

ARCH1304 Construction Administration (2 Credits) - This course provides an overview of the processes of managing, updating, and altering construction documents used during the construction phase of a project. Topics include documenting as-built construction, processing redlines, request for information, addendums, and change orders. Also covered is an introduction to shop drawings and drafting for the manufacturer of architectural building products.

ARCH1401 Studio 4 (4 Credits) - This advanced studio course guides students in the development of a set of working drawings for a commercial construction project while challenging students to manage a project workload from concept to completion. This course will advance students' knowledge of construction materials and methods and the preparation of construction details through analytical exercises of architectural detail vignettes. A progression to resourceful problem-solving of the Building Information Modeling (BIM) software will be incorporated. Emphasis on independent work, time management strategies, and the completion of deadline-driven tasks. An exploration of current events and the Architecture and Engineering Industry is also included.

ARCH1402 Architectural Visualization (Elective Option 1) (3 Credits) - Introduce advanced BIM software applications as they pertain to 3D visualization. Explore alternate software for enhanced architectural rendering and imaging. An emphasis on modeling for conceptual design, architectural marketing, and 3D animations. An inquiry into emerging industry visualization technology is included.

OR

ARCH1403 Capstone Project (Elective Option 2) (3 Credits) - Students will outline, design, and execute a project of their own choosing. Students are encouraged to pursue a project that will enhance a specialty of their particular interest. Developing a skill that will be marketable to future employers. Sample Projects include: explore a "new" software application, a real world residential, explore 3D printing for architecture, a real world conceptual design project, 3D scanning for BIM import, industry interview/video series, etc.

ARCH1404 Statics and Strengths of Materials (3 Credits) - This course covers an introduction to structural theory and calculation. It includes analysis of forces, vectors, calculations of forces, moments and internal stresses and strains in structural materials. It also includes tracing of load paths through the structure. (Prerequisites: MATH 125, ARCH 1301)

ARCH1500 Construction Experience (1 Credit) - Develop an understanding of the construction environment as it pertains to building assembly and the construction process. This course inspires students to explore opportunities within the diverse construction industry under the guidance and approval of the course instructor. (Prerequisite: None)

ARCH1501 Internship (3 Credits) - This course is applying acquired program knowledge in the workplace. Students are responsible for finding an appropriate program related job. (Prerequisites: ARCH 1101 and ARCH 1201)

Required Arts and Sciences (3 Courses)

To complete an AAS degree, students must complete 15 MnTC credits from 3 of the 10 MnTC goal areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

Arts and Sciences - Electives (4 Credits)

Select an additional 4 credits from MnTC goals 2,3,5,6,7,8,9 or 10.

Carpentry - Diploma

34 Credits DIP2457, Academic Catalog 2024-2025

The Carpentry program prepares students for a career in residential and commercial carpentry. The program coursework includes a mix of technical and general education, theory and hands-on learning experiences starting with the basics in tool usage, construction safety and print reading and progressing to advanced applications of residential and commercial carpentry skills and knowledge.

Campus: Faribault

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

Complete all of the following courses:

CARP1111 Carpentry Tools and Safety (3 Credits) - The course covers the safe operations of carpentry tools in the construction industry. Hand tools and stationary power tools will be covered. Job site safety, scaffolding, and ladders will be covered in depth. (Prerequisite: Declare Carpentry as a major)

CARP1112 Print Reading (3 Credits) - This course will focus on Residential Print Reading and the importance of being able to read and interpret construction prints. Students will learn to read floor plans, elevations, plot plans, sections and details. Students will be expected to participate in class discussions and answer questions from the workbook and quizzes.

CARP1123 Residential Principles I (5 Credits) - This course will cover the initial framing of a residential building project. It may involve an addition or remodeling an existing residence. Students will construct basement bearing walls, knee walls, well openings, posts, and beams. Students will install the sill, sill seal, rim joists, floor framing, floor plywood, and wall construction. All types of floor systems and wall framing techniques will be covered and implemented where applicable. (Prerequisite: Declare Carpentry as a major)

CARP1130 Residential Principles II (5 Credits) - This course will continue the residential building project started in Residential Principles I. Students will do layout for roof trusses, ceiling joists, or rafters. The roof will be installed on the residential project to match the existing structure according to building points. All types of roof construction and roof framing will be analyzed, discussed, and implemented where applicable. Roof plywood, roof edge, ice and water guard, along with tar paper, will be installed. Students will shingle and flash the roof according to manufacturer's recommendations and local building codes. Window installation on the project will also be completed in the course. (Corequisite: CARP 1123)

CARP1225 Stairway Technology (3 Credits) - This course covers all the aspects of stairway installation in residential construction. Students will learn the many code requirements involved with stairways. Students will layout, cut, and install a set of stairs. Stairs will also be constructed on the class residential building project. These stairways may be installed in the residence, off decks, or in the main entry. Skirt board, treads, risers, and handrails will be installed to finish a stairway to meet code requirements. (Prerequisites: CARP 1111; CARP 1112)

CARP1229 Exterior Finish (4 Credits) - This course covers the exterior finish of the student build residential project. This includes soffit and fascia, door and window trim, flashing, starter, corner boards, and siding. Many different types of siding will be discussed and studied from our text book and real world examples. Deck or patio construction would be completed at this time as well. (Prerequisites: CARP 1110 or CARP 1111)

CARP1239 Interior Finish (4 Credits) - This course is the completion of the inside of the residential building project constructed in earlier classes. This course covers the installation of doors, casing, window trim, and base. Students will install cabinets, counter tops, and all the details to finish a kitchen. This may include crown mold, base shoe, toe kick, and flooring. Students will also be involved in the finishing of closets, shelving, door bumpers, and door knobs. (Prerequisite CARP 1110 OR CARP 1111 AND CARP 1130)

CARP2105 Job Site Experience (4 Credits) - This course is the culmination of the second year project. Students will do a number of things to complete the house including patios, decks, sidewalks, garage doors and some finished floor installation. Students will also facilitate the return of tools and equipment back to college and lumber yard. The yard will be readied with appropriate landscape and the house will need to pass a final inspection. (Prerequisites CARP 1110 OR CARP 1111 AND CARP 1123)

MATH1050 Mathematics for Technical Careers (3 Credits) - Designed primarily for those entering the technical fields, this course develops a number of essential mathematical techniques in algebra, trigonometry and geometry. Among other things, the participant will learn how to simplify and factor algebraic expressions, solve linear and quadratic equations and systems of linear equations, evaluate and use the six trigonometric functions in computing triangle results, and apply geometric concepts to the measurement of both two- and three-dimensional objects. This course is not a prerequisite for college level math courses. (Prerequisite: Next-Generation Accuplacer Arithmetic score of 250 to 300 and a Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

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Civil Engineering Technology - Associate of Applied Science Degree

60 Credits AAS3405, Academic Catalog 2024-2025

Learners in the Civil Engineering Technology program will learn surveying techniques along with design and construction practices dealing with sewer, water, streets, roads and land surveying. Learners will be introduced to the newest surveying equipment plus computer programming, computer aided drafting and surveying systems. The ability to work independently and make decisions, along with accuracy and neatness are very important qualities for technicians. Technicians must be able to deal with professional people as well as the general public on a daily basis. The A.A.S. degree provides students with the necessary technical skills plus the Arts and Sciences base to broaden their horizons and aid them in seeing employment advancement.

Campus: North Manakto

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (13 Courses)

Complete the following courses:

CTLS1110 Basic AutoCAD (3 Credits) - This course covers the basic operations of AutoCAD. It includes drafting and editing, drawing setup, scaling and plotting. (Prerequisites: None)

CTLS1800 Construction Contract Documents (3 Credits) - This course covers the concepts relating to Civil Engineering drawings, construction specifications, and legal documents as associated with the industry. (Prerequisite: ENGL 100)

CTLS1805 Civil Cad (3 Credits) - This course covers the use of AutoDesk Civil 3D software in the design and drawing of Civil Engineering plans. (Prerequisite: CTLS 1110)

CTLS1810 Introduction to Surveying (4 Credits) - This course covers the principles of plane surveying involving methods of measuring horizontal and vertical distance, elevation and angles. Practice in the use of common measurement equipment, leveling instruments, compass, transit, theodolite and total station is stressed along with introduction to Global Positioning Systems and proper care and maintenance of all equipment. Recording of field information and correction of acquired data are an important part of this course. (Prerequisite: Successful completion of MATH 0075 with a grade of C (2.0) or higher, or Next Generation Accuplacer Arithmetic score of 250 or higher or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher.)

CTLS1815 Surveying 2 (4 Credits) - This course covers the practices and techniques required in topographic, route, control, and construction surveys. It will also stress highway curves, cross-sections, and layout. The course will focus on the use, care, and maintenance of TopCon total stations and Trimble GPS. (Prerequisites: CTLS 1810)

CTLS1820 Materials Technology (4 Credits) - This course covers the types of materials, construction methods, and quality control necessary in the construction of driven surfaces. The course examines basic geology with soil identification and classification for base construction, materials evaluation, testing methods for quality assurance in grading and base, bituminous surfacing, and concrete surfacing. This course is based on MnDOT certification requirements in the areas of Aggregate Production and Concrete Field 1. (Prerequisite: Must have a Next Generation Accuplacer Arithmetic score of 250 or higher; or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

CTLS2110 Statics and Strengths of Materials (3 Credits) - This course covers an introduction to structural theory and calculation. It includes analysis of forces, vectors, calculations of forces, moments and internal stresses and strains in structural materials. It also includes tracing of load paths through the structure. (Prerequisite: MATH 125)

CTLS2825 Civil Design (4 Credits) - This course covers the general techniques and procedures used in the design of necessary infrastructure associated with highway design. Bentley's Microstation software is utilized throughout the course. (Prerequisites: CTLS 1110, 1815)

CTLS2830 Construction Estimating and Inspections (4 Credits) - This course covers the study and performance of procedures necessary in estimating quantities and costs and construction inspection of heavy construction. Emphasis is placed on construction inspection through measurement of quantities, documentation, record keeping, and contract document interpretation. The equipment and materials utilized are also presented. (Prerequisite: CTLS 1110)

CTLS2835 Introduction to Land Surveying (3 Credits) - This course covers the history of land surveying from the beginning advancement of the United States to modern day standards. Students will learn technical elements of writing legal land descriptions, basic fundamentals of platting land, and methods of researching property and property corners. (Prerequisite: CTLS 1110, CTLS 1810)

GIS2840 Introduction to Geographic Information Systems (4 Credits) - This course covers the theory and use of computer software for the collection, analysis, and communication of geographic information. This course will use ArcGIS software, which was developed by Environmental Systems Research Institute, Inc. (ESRI) as a tool to create, manage and manipulate spatial data within a GIS. (Prerequisite: None)

CTLS2846 Hydrology and Hydraulics (3 Credits) - This course introduces the basic design of water treatment and distribution systems, wastewater treatment and collection systems, stormwater flow systems, stormwater detention facilities, erosion control, and stormwater pollution prevention plans. (Prerequisites: CTLS 1110, MATH 120)

CTLS2851 Internship (3 Credits) - The internship/practicum requires a minimum of 144 hours of hands-on experience performing civil engineering technology duties, such as construction inspection, surveys, roadway design, GIS, materials testing, and or other duties as requested. This course is designed to provide the student with a field experience to observe how procedures and/or policies are implemented and completed in civil engineering environments. (Prerequisites: None)

Required Arts and Sciences (1 Course)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal areas. The following course is required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

Required Math Courses (1 Course)

Select one or two courses to complete the Math requirement. NOTE: You must receive a grade of "C" or higher in MATH 120 before taking MATH 125.

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

OR

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

Arts and Science Electives (4 Credits)

Select 4 - 7 MnTC credits to reach a total of 15 credits. At least one course must be outside of MnTC Goal Areas 1 and 4. Courses must be chosen in consultation with advisor/faculty.

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Geographic Information Systems - Certificate

16 Credits CERT3481, Academic Catalog 2024-2025

The Geographic Information System certificate focuses on extended learning of GIS applications within the civil engineering environment. Students in this certificate program will acquire skills required by hiring agencies, which includes collection, management and analysis of spatial data, creation of maps, as well as GIS data development and management for web applications.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (3 Courses)

Complete the following courses:

GIS2840 Introduction to Geographic Information Systems (4 Credits) - This course covers the theory and use of computer software for the collection, analysis, and communication of geographic information. This course will use ArcGIS software, which was developed by Environmental Systems Research Institute, Inc. (ESRI) as a tool to create, manage and manipulate spatial data within a GIS. (Prerequisite: None)

GIS2841 Intermediate GIS (4 Credits) - This course is a continuation of CTLS 2840 Introduction to Geographic Information systems, with emphasis placed on continued learning of the manipulation, and management of spatial data, and understanding of relationships between features and database attributes. In addition, this course will cover the development of web mapping components that can be used to communicate information to those who need access to spatial data via the internet. The primary software used in this course will be (Environmental Systems Research Institute, Inc.) ESRI ArcGIS Software and extensions. (Prerequisite: GIS 2840)

GIS2842 Field Mapping with GPS (4 Credits) - This course covers the strategies of using mapping grade and survey grade GPS equipment and software to electronically collect spatial features for use in the development of GIS and CAD projects. (Prerequisite: GIS 2840 or consent of the Instructor)

Elective Credits - (4 Credits)

Choose 4 credits from the following courses:

GIS2843 GIS Practicum (1 - 4 Credits) - This variable credit course expands upon the knowledge students gained in previous geospatial technology courses and serves to hone their GIS skills. Students will have the opportunity to design, develop, and implement a GIS-based solution in response to a defined problem and present their results. (Prerequisite: GIS 2841 or instructor consent)

GIS2844 GIS Internship (1 - 4 Credits) - This variable credit course is one of the capstones of the GIS certificate program, where upon the students are provided a real world working atmosphere with area partners, such as state, county, and local governments, and consulting agencies. Students in this course work on assignments as requested by the governing agency and will be directed by the course instructor. (Prerequisite: GIS 2841 or consent of the Instructor)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

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Heating, Ventilation, Air Cond/Refrig - Foundation - Diploma

44 Credits DIP3483, Academic Catalog 2024-2025

Trained, highly skilled personnel are needed for the exciting new technological demands of the residential/commercial heating, ventilation, air conditioning and refrigeration industry. Independent and critical thinking men and women instilled with troubleshooting and electrical control circuit skills are vital for the future installation and servicing of HVAC/R equipment. The HVAC/R program at SCC is designed to prepare these individuals for entry-level positions in the HVAC/R field. To participate in the program, individuals should have a strong mechanical aptitude, strong math skills and enjoy problem solving.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete the following courses:

HVAC2000 Electrical Circuits (2 Credits) - This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 IPH Motors and Auxiliary Controls (2 Credits) - The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2100 Refrigeration Theory (2 Credits) - This course introduces the students to the refrigeration system, how it works, and the relationship between pressure and temperatures. We will discuss the reasons for EPA testing, refrigeration terminology, troubleshooting, and the proper handling of refrigerants. (Prerequisites: None)

HVAC2110 Refrigeration Controls (2 Credits) - This course covers controls found in both household and commercial refrigeration systems. The functions and operation of these controls will be discussed along with proper troubleshooting procedures. This course will be offered concurrently with refrigeration theory and electrical circuits. (Prerequisites: None)

HVAC2120 Testing Refrigeration Systems (2 Credits) - This course will cover analyzing, troubleshooting and testing of both the electrical and refrigeration systems. Safety will be stressed throughout this course. This course will be offered concurrently with refrigeration controls. (Prerequisites: None)

HVAC2205 Coolers/Freezers Electrical Systems & Components (3 Credits) - This course will cover both commercial coolers and freezers. The electrical components that are used in commercial coolers and freezers will be studied, analyzed, operated, and tested. A large portion of the class will be designated to the drawing and understanding of wiring schematics for the purpose of troubleshooting electrical failures. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and refrigeration controls. (Prerequisite: HVAC 2120)

HVAC2215 Coolers/Freezers Refrigeration Diagnostics & Operations (3 Credits) - This course will cover both commercial coolers and freezers. We will discuss the operation of the refrigeration sealed system and analyze how to diagnose system failures and their causes. The student will learn the proper way to recover and charge a commercial refrigeration unit. The students will study and follow EPA regulations regarding the handling of refrigerants. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and controls. (Prerequisite: HVAC 2120)

HVAC2220 Commercial Ice Makers (3 Credits) - This course covers commercial ice makers used in the industry today. The electrical, mechanical and water systems will be studied, analyzed, connected and operated. The students will study proper troubleshooting and safety procedures. The students will then apply this knowledge when testing the electrical, mechanical and water systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2230 Commercial Alternative Systems (1 Credit) - This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have an understanding of the refrigeration sealed system components and how they work. (Prerequisites: None)

HVAC2240 Central Air Conditioning (2 Credits) - This course covers the different central air conditioning systems found in residential and light commercial applications today. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2251 Brazing (2 Credits) - This course covers brazing equipment and materials. Students will be introduced to the soldering and brazing process, terms, and personal safety. (Prerequisites: None)

HVAC2301 Indoor Air Quality (1 Credit) - This course covers equipment that deals with today's problem with indoor air quality. Students will study, analyze the causes of poor IAQ in homes and the work place. Each student will give an oral report on a topic picked by the instructor. (Prerequisites: None)

HVAC2310 Hydronic Heat (2 Credits) - This course covers systems that utilize fluid for the transfer of heat known as hydronic heating. The electrical and mechanical systems will be studied and analyzed along with troubleshooting system fluid problems, air infiltration and proper operating pressures. The students will identify fluid control components, and demonstrate knowledge of each component's purpose in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2320 Gas Heat (3 Credits) - This course covers the forced air gas heating systems found in residential and light commercial applications. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student should take HVAC 2000 and HVAC 2100 before or concurrent. (Prerequisite: None)

HVAC2325 Commercial Package Heat/Cool Units (2 Credits) - This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2340 Sheet Metal Ductwork Fabrication (3 Credits) - The course will introduce the student to the layout and fabrication of sheet metal ductwork in both commercial and residential applications. The student will fabricate fittings including reducers, transitions, takeoffs, ogee offsets and radius elbows. Residential duct design and sizing methods will be discussed along with heat loss/heat gain calculations with related computer software applications. The student will be exposed to blue print reading and related specification books. (Prerequisites: None)

Elective Credits (9 Credits)

Technical Courses - Select 9 credits from any HVAC course or MKT 1800.

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Heating, Ventilation, Air Cond/Refrigeration (Heating Cert) - Certificate

26 Credits CERT3460, Academic Catalog 2024-2025

Trained, highly skilled personnel are needed for the exciting new technological demands of the residential/commercial heating, ventilation, air conditioning and refrigeration industry. Independent and critical thinking men and women instilled with troubleshooting and electrical control circuit skills are vital for the future installation and servicing of HVAC/R equipment. The HVAC/R program at SCC is designed to prepare these individuals for entry-level positions in the HVAC/R field. To participate in the program, individuals should have a strong mechanical aptitude, strong math skills and enjoy problem solving.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (7 Courses)

Complete the following courses:

HVAC2000 Electrical Circuits (2 Credits) - This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 IPH Motors and Auxiliary Controls (2 Credits) - The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2301 Indoor Air Quality (1 Credit) - This course covers equipment that deals with today's problem with indoor air quality. Students will study, analyze the causes of poor IAQ in homes and the work place. Each student will give an oral report on a topic picked by the instructor. (Prerequisites: None)

HVAC2310 Hydronic Heat (2 Credits) - This course covers systems that utilize fluid for the transfer of heat known as hydronic heating. The electrical and mechanical systems will be studied and analyzed along with troubleshooting system fluid problems, air infiltration and proper operating pressures. The students will identify fluid control components, and demonstrate knowledge of each component's purpose in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2320 Gas Heat (3 Credits) - This course covers the forced air gas heating systems found in residential and light commercial applications. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student should take HVAC 2000 and HVAC 2100 before or concurrent. (Prerequisite: None)

HVAC2325 Commercial Package Heat/Cool Units (2 Credits) - This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2340 Sheet Metal Ductwork Fabrication (3 Credits) - The course will introduce the student to the layout and fabrication of sheet metal ductwork in both commercial and residential applications. The student will fabricate fittings including reducers, transitions, takeoffs, ogee offsets and radius elbows. Residential duct design and sizing methods will be discussed along with heat loss/heat gain calculations with related computer software applications. The student will be exposed to blue print reading and related specification books. (Prerequisites: None)

Technical Electives (11 Credits)

Complete 11 credits from the following courses:

HLTH1950 CPR (1 Credit) - This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold

exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

HLTH1954 Safety (1 Credit) - This course includes basic OSHA safety standards. Hearing protection, eye protection, back injuries, lockout/tagout procedures, Hazard Communication Standard, bloodborne pathogens and substance use and abuse in the workplace are examples of topics covered in the course. The consequences of disregarding safety practices are explored. (Prerequisites: None)

OTEC2000 Employment Search Skills (2 Credits) - This course introduces students to a process for developing self-awareness - considering career opportunities, constraints, choices, and consequences - identifying career related goals - and planning of work, education, and related experiences to attain specific career goals. Students will also create job search documents and develop interviewing skills. The students will develop an understanding of and appreciation for the job search process. Students will use Internet and library resources.

HVAC2330 Alternative Heating Systems (2 Credits) - This course covers a variety of alternative heating systems, some of the systems included will be oil heating systems, a variety of electrical heating systems, heat pump systems and alternative fuel sources will be discussed. Electrical and mechanical systems will be explored along with safety, troubleshooting and equipment performance. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2240, and HVAC 2320 or concurrent. (Prerequisites: None)

HVAC2500 Advance Heating Lab I (1 Credit) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer instillation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and taken HVAC 2320. (Prerequisites: None)

HVAC2510 Advanced Heating Lab II (2 Credits) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer instillation guides will be studied and a detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2320. (Prerequisites: None)

HVAC2520 Heating Internship I (1 Credit) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HVAC2530 Heating Internship II (2 Credits) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

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Heating, Ventilation, Air Conditioning/Refrigeration - Advanced - Diploma

60 Credits DIP3472, Academic Catalog 2024-2025

Trained, highly skilled personnel are needed for the exciting new technological demands of the residential/commercial heating, ventilation, air conditioning and refrigeration industry. Independent and critical thinking men and women instilled with troubleshooting and electrical control circuit skills are vital for the future installation and servicing of HVAC/R equipment. The HVAC/R program at SCC is designed to prepare these individuals for entry-level positions in the HVAC/R field. To participate in the program, individuals should have a strong mechanical aptitude, strong math skills and enjoy problem solving.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete the following courses:

HVAC2000 Electrical Circuits (2 Credits) - This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 IPH Motors and Auxiliary Controls (2 Credits) - The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2100 Refrigeration Theory (2 Credits) - This course introduces the students to the refrigeration system, how it works, and the relationship between pressure and temperatures. We will discuss the reasons for EPA testing, refrigeration terminology, troubleshooting, and the proper handling of refrigerants. (Prerequisites: None)

HVAC2110 Refrigeration Controls (2 Credits) - This course covers controls found in both household and commercial refrigeration systems. The functions and operation of these controls will be discussed along with proper troubleshooting procedures. This course will be offered concurrently with refrigeration theory and electrical circuits. (Prerequisites: None)

HVAC2120 Testing Refrigeration Systems (2 Credits) - This course will cover analyzing, troubleshooting and testing of both the electrical and refrigeration systems. Safety will be stressed throughout this course. This course will be offered concurrently with refrigeration controls. (Prerequisites: None)

HVAC2205 Coolers/Freezers Electrical Systems & Components (3 Credits) - This course will cover both commercial coolers and freezers. The electrical components that are used in commercial coolers and freezers will be studied, analyzed, operated, and tested. A large portion of the class will be designated to the drawing and understanding of wiring schematics for the purpose of troubleshooting electrical failures. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and refrigeration controls. (Prerequisite: HVAC 2120)

HVAC2215 Coolers/Freezers Refrigeration Diagnostics & Operations (3 Credits) - This course will cover both commercial coolers and freezers. We will discuss the operation of the refrigeration sealed system and analyze how to diagnose system failures and their causes. The student will learn the proper way to recover and charge a commercial refrigeration unit. The students will study and follow EPA regulations regarding the handling of refrigerants. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and controls. (Prerequisite: HVAC 2120)

HVAC2220 Commercial Ice Makers (3 Credits) - This course covers commercial ice makers used in the industry today. The electrical, mechanical and water systems will be studied, analyzed, connected and operated. The students will study proper troubleshooting and safety procedures. The students will then apply this knowledge when testing the electrical, mechanical and water systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2230 Commercial Alternative Systems (1 Credit) - This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have an understanding of the refrigeration sealed system components and how they work. (Prerequisites: None)

HVAC2240 Central Air Conditioning (2 Credits) - This course covers the different central air conditioning systems found in residential and light commercial applications today. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2251 Brazing (2 Credits) - This course covers brazing equipment and materials. Students will be introduced to the soldering and brazing process, terms, and personal safety. (Prerequisites: None)

HVAC2301 Indoor Air Quality (1 Credit) - This course covers equipment that deals with today's problem with indoor air quality. Students will study, analyze the causes of poor IAQ in homes and the work place. Each student will give an oral report on a topic picked by the instructor. (Prerequisites: None)

HVAC2310 Hydronic Heat (2 Credits) - This course covers systems that utilize fluid for the transfer of heat known as hydronic heating. The electrical and mechanical systems will be studied and analyzed along with troubleshooting system fluid problems, air infiltration and proper operating pressures. The students will identify fluid control components, and demonstrate knowledge of each component's purpose in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2320 Gas Heat (3 Credits) - This course covers the forced air gas heating systems found in residential and light commercial applications. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student should take HVAC 2000 and HVAC 2100 before or concurrent. (Prerequisite: None)

HVAC2325 Commercial Package Heat/Cool Units (2 Credits) - This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2340 Sheet Metal Ductwork Fabrication (3 Credits) - The course will introduce the student to the layout and fabrication of sheet metal ductwork in both commercial and residential applications. The student will fabricate fittings including reducers, transitions, takeoffs, ogee offsets and radius elbows. Residential duct design and sizing methods will be discussed along with heat loss/heat gain calculations with related computer software applications. The student will be exposed to blue print reading and related specification books. (Prerequisites: None)

Technical Electives (19 Credits)

Complete 19 credits from the following courses:

HLTH1950 CPR (1 Credit) - This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HVAC2410 Advanced Central Air Conditioning Lab II (2 Credits) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None)

HVAC2420 Air Conditioning Internship I (1 Credit) - This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2430 Air Conditioning Internship II (2 Credits) - This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2440 Advanced Refrigeration Lab I (1 Credit) - This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2450 Advanced Refrigeration Lab II (2 Credits) - This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2460 Refrigeration Internship I (1 Credit) - This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2470 Refrigeration Internship II (2 Credits) - This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls and sealed systems. (Prerequisites: None)

HVAC2500 Advance Heating Lab I (1 Credit) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get

involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and taken HVAC 2320. (Prerequisites: None)

HVAC2510 Advanced Heating Lab II (2 Credits) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and a detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2320. (Prerequisites: None)

HVAC2520 Heating Internship I (1 Credit) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

HVAC2530 Heating Internship II (2 Credits) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HLTH1954 Safety (1 Credit) - This course includes basic OSHA safety standards. Hearing protection, eye protection, back injuries, lockout/tagout procedures, Hazard Communication Standard, bloodborne pathogens and substance use and abuse in the workplace are examples of topics covered in the course. The consequences of disregarding safety practices are explored. (Prerequisites: None)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

OTEC2000 Employment Search Skills (2 Credits) - This course introduces students to a process for developing self-awareness - considering career opportunities, constraints, choices, and consequences - identifying career related goals - and planning of work, education, and related experiences to attain specific career goals. Students will also create job search documents and develop interviewing skills. The students will develop an understanding of and appreciation for the job search process. Students will use Internet and library resources.

HVAC1000 Alternative Refrigeration Systems Lab I (1 Credit) - This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC1200 Alternative Refrigeration Systems Lab II (2 Credits) - This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2330 Alternative Heating Systems (2 Credits) - This course covers a variety of alternative heating systems, some of the systems included will be oil heating systems, a variety of electrical heating systems, heat pump systems and alternative fuel sources will be discussed. Electrical and mechanical systems will be explored along with safety, troubleshooting and equipment performance. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2240, and HVAC 2320 or concurrent. (Prerequisites: None)

HVAC2400 Advance Central A/C Lab 1 (1 Credit) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None)

Required Arts and Sciences (6 Credits)

To complete the Advanced Diploma, students must complete 6 MnTC credits from 2 of the 10 MnTC goal areas.

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Heating, Ventilation, Air Conditioning/Refrigeration - Associate of Applied Science Degree

72 Credits AAS3456, Academic Catalog 2024-2025

Trained, highly skilled personnel are needed for the exciting new technological demands of the residential/commercial heating, ventilation, air conditioning and refrigeration industry. Independent and critical thinking men and women instilled with troubleshooting and electrical control circuit skills are vital for the future installation and servicing of HVAC/R equipment. The HVAC/R program at SCC is designed to prepare these individuals for entry-level positions in the HVAC/R field. To participate in the program, individuals should have a strong mechanical aptitude, strong math skills, and enjoy problem-solving.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses: (16 Courses)

Complete all of the following courses:

HVAC2000 Electrical Circuits (2 Credits) - This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 IPH Motors and Auxiliary Controls (2 Credits) - The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2100 Refrigeration Theory (2 Credits) - This course introduces the students to the refrigeration system, how it works, and the relationship between pressure and temperatures. We will discuss the reasons for EPA testing, refrigeration terminology, troubleshooting, and the proper handling of refrigerants. (Prerequisites: None)

HVAC2110 Refrigeration Controls (2 Credits) - This course covers controls found in both household and commercial refrigeration systems. The functions and operation of these controls will be discussed along with proper troubleshooting procedures. This course will be offered concurrently with refrigeration theory and electrical circuits. (Prerequisites: None)

HVAC2120 Testing Refrigeration Systems (2 Credits) - This course will cover analyzing, troubleshooting and testing of both the electrical and refrigeration systems. Safety will be stressed throughout this course. This course will be offered concurrently with refrigeration controls. (Prerequisites: None)

HVAC2205 Coolers/Freezers Electrical Systems & Components (3 Credits) - This course will cover both commercial coolers and freezers. The electrical components that are used in commercial coolers and freezers will be studied, analyzed, operated, and tested. A large portion of the class will be designated to the drawing and understanding of wiring schematics for the purpose of troubleshooting electrical failures. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and refrigeration controls. (Prerequisite: HVAC 2120)

HVAC2215 Coolers/Freezers Refrigeration Diagnostics & Operations (3 Credits) - This course will cover both commercial coolers and freezers. We will discuss the operation of the refrigeration sealed system and analyze how to diagnose system failures and their causes. The student will learn the proper way to recover and charge a commercial refrigeration unit. The students will study and follow EPA regulations regarding the handling of refrigerants. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and controls. (Prerequisite: HVAC 2120)

HVAC2220 Commercial Ice Makers (3 Credits) - This course covers commercial ice makers used in the industry today. The electrical, mechanical and water systems will be studied, analyzed, connected and operated. The students will study proper troubleshooting and safety procedures. The students will then apply this knowledge when testing the electrical, mechanical and water systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2230 Commercial Alternative Systems (1 Credit) - This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have an understanding of the refrigeration sealed system components and how they work. (Prerequisites: None)

HVAC2240 Central Air Conditioning (2 Credits) - This course covers the different central air conditioning systems found in residential and light commercial applications today. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical

operations in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2251 Brazing (2 Credits) - This course covers brazing equipment and materials. Students will be introduced to the soldering and brazing process, terms, and personal safety. (Prerequisites: None)

HVAC2301 Indoor Air Quality (1 Credit) - This course covers equipment that deals with today's problem with indoor air quality. Students will study, analyze the causes of poor IAQ in homes and the work place. Each student will give an oral report on a topic picked by the instructor. (Prerequisites: None)

HVAC2310 Hydronic Heat (2 Credits) - This course covers systems that utilize fluid for the transfer of heat known as hydronic heating. The electrical and mechanical systems will be studied and analyzed along with troubleshooting system fluid problems, air infiltration and proper operating pressures. The students will identify fluid control components, and demonstrate knowledge of each component's purpose in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2320 Gas Heat (3 Credits) - This course covers the forced air gas heating systems found in residential and light commercial applications. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student should take HVAC 2000 and HVAC 2100 before or concurrent. (Prerequisite: None)

HVAC2325 Commercial Package Heat/Cool Units (2 Credits) - This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2340 Sheet Metal Ductwork Fabrication (3 Credits) - The course will introduce the student to the layout and fabrication of sheet metal ductwork in both commercial and residential applications. The student will fabricate fittings including reducers, transitions, takeoffs, ogee offsets and radius elbows. Residential duct design and sizing methods will be discussed along with heat loss/heat gain calculations with related computer software applications. The student will be exposed to blue print reading and related specification books. (Prerequisites: None)

Required Technical Electives (19 Credits)

Complete 19 credits from the following courses:

HLTH1950 CPR (1 Credit) - This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HVAC2410 Advanced Central Air Conditioning Lab II (2 Credits) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None) ,

HVAC2420 Air Conditioning Internship I (1 Credit) - This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2430 Air Conditioning Internship II (2 Credits) - This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2440 Advanced Refrigeration Lab I (1 Credit) - This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2450 Advanced Refrigeration Lab II (2 Credits) - This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2460 Refrigeration Internship I (1 Credit) - This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2470 Refrigeration Internship II (2 Credits) - This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls and sealed systems. (Prerequisites: None)

HVAC2500 Advance Heating Lab I (1 Credit) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and taken HVAC 2320. (Prerequisites: None)

HVAC2510 Advanced Heating Lab II (2 Credits) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and a detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2320. (Prerequisites: None)

HVAC2520 Heating Internship I (1 Credit) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

HVAC2530 Heating Internship II (2 Credits) - This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HLTH1954 Safety (1 Credit) - This course includes basic OSHA safety standards. Hearing protection, eye protection, back injuries, lockout/tagout procedures, Hazard Communication Standard, bloodborne pathogens and substance use and abuse in the workplace are examples of topics covered in the course. The consequences of disregarding safety practices are explored. (Prerequisites: None)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

OTEC2000 Employment Search Skills (2 Credits) - This course introduces students to a process for developing self-awareness - considering career opportunities, constraints, choices, and consequences - identifying career related goals - and planning of work, education, and related experiences to attain specific career goals. Students will also create job search documents and develop interviewing skills. The students will develop an understanding of and appreciation for the job search process. Students will use Internet and library resources.

HVAC1000 Alternative Refrigeration Systems Lab I (1 Credit) - This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC1200 Alternative Refrigeration Systems Lab II (2 Credits) - This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2330 Alternative Heating Systems (2 Credits) - This course covers a variety of alternative heating systems, some of the systems included will be oil heating systems, a variety of electrical heating systems, heat pump systems and alternative fuel sources will be discussed. Electrical and mechanical systems will be explored along with safety, troubleshooting and equipment performance. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2240, and HVAC 2320 or concurrent. (Prerequisites: None)

HVAC2400 Advance Central A/C Lab 1 (1 Credit) - This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None)

Other Elective Credits (3 Credits)

Technical Courses- Select three credits from any technical courses in consultation with advisor/faculty.

Required Arts and Sciences

To complete an AAS Degree, students must complete 15 MnTC credits from 3 of the 10 MnTC Goal Areas.

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Refrigeration Technology (CERT) - Certificate

26 Credits CERT3461, Academic Catalog 2024-2025

Trained, highly skilled personnel are needed for the exciting new technological demands of the residential/commercial heating, ventilation, air conditioning and refrigeration industry. Independent and critical thinking men and women instilled with troubleshooting and electrical control circuit skills are vital for the future installation and servicing of HVAC/R equipment. The HVAC/R program at SCC is designed to prepare these individuals for entry-level positions in the HVAC/R field. To participate in the program, individuals should have a strong mechanical aptitude, strong math skills and enjoy problem solving.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

HVAC2000 Electrical Circuits (2 Credits) - This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 IPH Motors and Auxiliary Controls (2 Credits) - The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2100 Refrigeration Theory (2 Credits) - This course introduces the students to the refrigeration system, how it works, and the relationship between pressure and temperatures. We will discuss the reasons for EPA testing, refrigeration terminology, troubleshooting, and the proper handling of refrigerants. (Prerequisites: None)

HVAC2110 Refrigeration Controls (2 Credits) - This course covers controls found in both household and commercial refrigeration systems. The functions and operation of these controls will be discussed along with proper troubleshooting procedures. This course will be offered concurrently with refrigeration theory and electrical circuits. (Prerequisites: None)

HVAC2120 Testing Refrigeration Systems (2 Credits) - This course will cover analyzing, troubleshooting and testing of both the electrical and refrigeration systems. Safety will be stressed throughout this course. This course will be offered concurrently with refrigeration controls. (Prerequisites: None)

HVAC2205 Coolers/Freezers Electrical Systems & Components (3 Credits) - This course will cover both commercial coolers and freezers. The electrical components that are used in commercial coolers and freezers will be studied, analyzed, operated, and tested. A large portion of the class will be designated to the drawing and understanding of wiring schematics for the purpose of troubleshooting electrical failures. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and refrigeration controls. (Prerequisite: HVAC 2120)

HVAC2215 Coolers/Freezers Refrigeration Diagnostics & Operations (3 Credits) - This course will cover both commercial coolers and freezers. We will discuss the operation of the refrigeration sealed system and analyze how to diagnose system failures and their causes. The student will learn the proper way to recover and charge a commercial refrigeration unit. The students will study and follow EPA regulations regarding the handling of refrigerants. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and controls. (Prerequisite: HVAC 2120)

HVAC2220 Commercial Ice Makers (3 Credits) - This course covers commercial ice makers used in the industry today. The electrical, mechanical and water systems will be studied, analyzed, connected and operated. The students will study proper troubleshooting and safety procedures. The students will then apply this knowledge when testing the electrical, mechanical and water systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2230 Commercial Alternative Systems (1 Credit) - This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have an understanding of the refrigeration sealed system components and how they work. (Prerequisites: None)

HVAC2240 Central Air Conditioning (2 Credits) - This course covers the different central air conditioning systems found in residential and light commercial applications today. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2251 Brazing (2 Credits) - This course covers brazing equipment and materials. Students will be introduced to the soldering and brazing process, terms, and personal safety. (Prerequisites: None)

HVAC2325 Commercial Package Heat/Cool Units (2 Credits) - This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

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Accounting Assistant - Diploma

34 Credits DIP3242/DIP2229, Academic Catalog 2024-2025

An accounting assistant performs any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. In addition, the accounting assistant prepares daily bank deposits, writes checks and maintains a cash disbursement system. All Accounting Assistant diploma courses can be applied toward an A.A.S. degree in Accounting

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (8 Courses)

Complete the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 Computerized Accounting II (3 Credits) - This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 Professional Accounting Careers (1 Credit) - This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

ACCT2847 Fraud, Auditing and Internal Controls (4 Credits) - In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

Required Arts and Sciences (1 Course)

Complete the following course:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

Elective Credits (5 Credits)

Choose 5 credits from any of the following Technical and/or Arts and Sciences courses:

ACCT2827 Principles of Finance (3 Credits) - This course introduces the student to finance concepts for small to medium size businesses. Concepts covered in this course include financial markets, implication of interest rates to business, understanding of financial statements, risk versus return, use of debt financing, use of equity financing, capital budgeting concepts, cost of capital, determining the appropriate financing mix, forecasting techniques, working capital management, and liquid asset management. (Prerequisites: ACCT 1810)

ACCT2850 Accounting Internship (1 - 8 Credits) - This course provides students with actual experiences in accounting careers. A competency-based internship plan will be developed for each student. The student can receive internship credit for participating in the Volunteer Income Tax Assistance (VITA) program at SCC in conjunction with the Internal Revenue Service, Minnesota Department of Revenue, and Minnesota Valley Action Council. (Prerequisite: Instructor approval)

ACCT2863 Fund/NonProfit Accounting (3 Credits) - The purpose of this course is to assist students in gaining a knowledge of accounting and financial reporting currently recommended for state and local governmental entities, school districts, and other not-for-profit organizations. The course will assist the student in developing a knowledge of the accounting differences between governmental and not-for-profit entities and business enterprises. (Prerequisites: ACCT 1810)

ACCT2864 Income Tax I (4 Credits) - The purpose of this course is to expose students to an explanation of Federal and Minnesota individual income tax as it relates to the preparation of the required tax returns. Tax research is also examined in this course. Students will have hands-on experience in preparing Federal and Minnesota income tax returns. (Prerequisites: None)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

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Accounting Technician - Diploma

48 Credits DIP3241/DIP2213, Academic Catalog 2024-2025

The Accounting Technician monitors and controls various types of electronic data processing equipment used to process accounting data. Applications would include automated general ledger and other sub-systems, spreadsheet applications, database management and the use of graphics

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete all of the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 Computerized Accounting II (3 Credits) - This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 Professional Accounting Careers (1 Credit) - This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

ACCT2821 Intermediate Accounting I (3 Credits) - This is the first of the two course intermediate accounting series. The content of this course covers an overview of the accounting process, the balance sheet, the income statement and statement of cash flows, the time value of money and other various components of the balance sheet. (Prerequisite: ACCT 1810)

ACCT2847 Fraud, Auditing and Internal Controls (4 Credits) - In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

ACCT2861 Cost Accounting I (4 Credits) - This course covers managerial accounting cost concepts and behaviors. Examples of job order costing, process costing, and accounting for materials, direct labor, and factory overhead will be discussed. (Prerequisites: ACCT 1810, 1811 with a grade of C or higher)

ACCT2863 Fund/NonProfit Accounting (3 Credits) - The purpose of this course is to assist students in gaining a knowledge of accounting and financial reporting currently recommended for state and local governmental entities, school districts, and other not-for-profit organizations. The course will assist the student in developing a knowledge of the accounting differences between governmental and not-for-profit entities and business enterprises. (Prerequisites: ACCT 1810)

ACCT2864 Income Tax I (4 Credits) - The purpose of this course is to expose students to an explanation of Federal and Minnesota individual income tax as it relates to the preparation of the required tax returns. Tax research is also examined in this course. Students will have hands-on experience in preparing Federal and Minnesota income tax returns. (Prerequisites: None)

Required Arts and Sciences (1 Course)

Complete the following course:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

Elective Credits (5 Credits)

Choose 5 credits from the following Technical and/or Arts and Sciences courses:

ACCT2827 Principles of Finance (3 Credits) - This course introduces the student to finance concepts for small to medium size businesses. Concepts covered in this course include financial markets, implication of interest rates to business, understanding of financial statements, risk versus return, use of debt financing, use of equity financing, capital budgeting concepts, cost of capital, determining the appropriate financing mix, forecasting techniques, working capital management, and liquid asset management. (Prerequisites: ACCT 1810)

ACCT2850 Accounting Internship (1 - 8 Credits) - This course provides students with actual experiences in accounting careers. A competency-based internship plan will be developed for each student. The student can receive internship credit for participating in the Volunteer Income Tax Assistance (VITA) program at SCC in conjunction with the Internal Revenue Service, Minnesota Department of Revenue, and Minnesota Valley Action Council. (Prerequisite: Instructor approval)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

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Accounting Technician - Associate of Applied Science Degree

67 Credits AAS3259/AAS2242, Academic Catalog 2024-2025

The Accounting Technician A.A.S. degree is designed to prepare students for a cross-functional position that emphasizes working in an advanced electronic office environment. Typical responsibilities would be installation and operation of accounting software packages, computerized processing of federal and state reporting forms, information processing, graphical presentation of reports, and database management.

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

Complete all of the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 Computerized Accounting II (3 Credits) - This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 Professional Accounting Careers (1 Credit) - This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

ACCT2821 Intermediate Accounting I (3 Credits) - This is the first of the two course intermediate accounting series. The content of this course covers an overview of the accounting process, the balance sheet, the income statement and statement of cash flows, the time value of money and other various components of the balance sheet. (Prerequisite: ACCT 1810)

ACCT2847 Fraud, Auditing and Internal Controls (4 Credits) - In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

ACCT2861 Cost Accounting I (4 Credits) - This course covers managerial accounting cost concepts and behaviors. Examples of job order costing, process costing, and accounting for materials, direct labor, and factory overhead will be discussed. (Prerequisites: ACCT 1810, 1811 with a grade of C or higher)

ACCT2864 Income Tax I (4 Credits) - The purpose of this course is to expose students to an explanation of Federal and Minnesota individual income tax as it relates to the preparation of the required tax returns. Tax research is also examined in this course. Students will have hands-on experience in preparing Federal and Minnesota income tax returns. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

Technical Electives (3 Credits)

Choose a minimum of 3 from either ACCT, COMP, MKT or OTEC.

Required Arts and Sciences (5 Courses)

To complete the Accounting Technician AAS Degree, students must complete 17 MNTC credits from 3 of the 10 MNTC Goal areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

OR

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

OR

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098

OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

OR

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

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Accountant - Associate of Applied Science Degree

71 Credits AAS3230/AAS2214, Academic Catalog 2024-2025

The A.A.S. Degree in Accounting is designed to prepare learners to examine, analyze and interpret accounting data for the purpose of giving advice and preparing financial statements. Responsibilities may include recording receipts, recording disbursements, closing year end records, compiling financial statements, preparing internal management, and/or state and federal reports. Accountants perform these duties both manually and with computer assistance.

South Central College's Accounting options prepare you for immediate employment. By completing the Accountant AAS degree or the Accountant diploma you will be ready to take the Registered Accounting Practitioner (RAP) certification exam, as well as be familiar with topics covered in the Certified Public Accountant (CPA), Certified Managerial Accountant (CMA) and Enrolled Agents (EA) certification exams.

In addition, you can earn a Bachelor's degree right on the South Central College Faribault and North Mankato campuses through Concordia University St. Paul. The agreement with Concordia allows for credits from South Central College to transfer and the classes can be completed during the evening allowing you to work. Talk to an Accounting instructor for more details

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete all of the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 Computerized Accounting II (3 Credits) - This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 Professional Accounting Careers (1 Credit) - This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

ACCT2821 Intermediate Accounting I (3 Credits) - This is the first of the two course intermediate accounting series. The content of this course covers an overview of the accounting process, the balance sheet, the income statement and statement of cash flows, the time value of money and other various components of the balance sheet. (Prerequisite: ACCT 1810)

ACCT2822 Intermediate Accounting II (3 Credits) - This is the second of the two course intermediate accounting series. The content of the course covers operational assets, investments, current liabilities and contingencies, long-term debt, leases, accounting for income taxes, accounting changes and error corrections and other advanced accounting topics. (Prerequisites: ACCT 2821 or equivalent)

ACCT2847 Fraud, Auditing and Internal Controls (4 Credits) - In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

ACCT2861 Cost Accounting I (4 Credits) - This course covers managerial accounting cost concepts and behaviors. Examples of job order costing, process costing, and accounting for materials, direct labor, and factory overhead will be discussed. (Prerequisites: ACCT 1810, 1811 with a grade of C or higher)

ACCT2862 Cost Accounting II (3 Credits) - This course is an extension of ACCT 2861. This course covers budgeting, standard costing, direct costing, differential analysis, capital planning, transfer pricing, and decision making under uncertainty. (Prerequisites: ACCT 2861 or equivalent)

ACCT2863 Fund/NonProfit Accounting (3 Credits) - The purpose of this course is to assist students in gaining a knowledge of accounting and financial reporting currently recommended for state and local governmental entities, school districts, and other not-for-profit organizations. The course will assist the student in developing a knowledge of the accounting differences between governmental and not-for-profit entities and business enterprises. (Prerequisites: ACCT 1810)

ACCT2864 Income Tax I (4 Credits) - The purpose of this course is to expose students to an explanation of Federal and Minnesota individual income tax as it relates to the preparation of the required tax returns. Tax research is also examined in this course. Students will have hands-on experience in preparing Federal and Minnesota income tax returns. (Prerequisites: None)

ACCT2865 Income Tax II (3 Credits) - This course provides an explanation and interpretation of the Internal Revenue Code as applied to sole proprietorships, partnerships, and corporations. Topics include business income, expenses, business tax credits, withholding and payment of established estate and trust tax issues, taxes, installment sales, and inventories. (Prerequisites: ACCT 2864)

ACCT2900 Accounting Review (3 Credits) - This course reviews financial accounting, ethics and professional conduct, business law, taxation and managerial accounting concepts. This course will prepare the student for the ACAT Comprehensive Examination for Accreditations in Accountancy. (Prerequisites: ACCT 1800, 2821, 2861, 2864)

Elective Credits (3 Credits)

Choose 3 credits from ACCT, MKT,COMP or OTEC

Required Arts and Sciences (5 Courses)

To complete the Accountant AAS Degree, students must complete 17 MNTC credits from 3 of the 10 MNTC Goal areas. The following courses are required:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

OR

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

OR

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

OR

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

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Payroll Clerk - Certificate

23 Credits CERT3270/CERT2248, Academic Catalog 2024-2025

A payroll clerk fills the need for timely and accurate payroll cost information. This certificate is a series of courses that provide entry-level skills in payroll accounting. This includes the recording function all the way through to the disbursement of the checks. With constant changes in the legal environment and technological advances, this occupation is critical.

NOTE: In addition to classes listed, College Readiness classes may be required of some students. See your program advisor.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (5 Courses)

Complete all of the following courses:

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 Computerized Accounting II (3 Credits) - This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 Professional Accounting Careers (1 Credit) - This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

Elective Credits (9 Credits)

Choose 9 credits from any of the following Technical and/or Arts and Sciences courses:

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT2847 Fraud, Auditing and Internal Controls (4 Credits) - In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel function. (Prerequisites: None)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

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Business Management - Associate of Applied Science Degree

60 Credits AAS3280/AAS2280, Academic Catalog 2024-2025

The Business Management Program is designed to provide learners with a broad background in general business concepts. The program focuses on the skills and knowledge needed in the areas of accounting, marketing and management, computer technology and office administration. The program increases opportunities for learners to be successful in their current job as well as assisting them in their career advancement endeavors. The program also includes a Arts and Sciences component that helps learners develop a well-rounded view of the world in which they live and work.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

Complete all of the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT2827 Principles of Finance (3 Credits) - This course introduces the student to finance concepts for small to medium size businesses. Concepts covered in this course include financial markets, implication of interest rates to business, understanding of financial statements, risk versus return, use of debt financing, use of equity financing, capital budgeting concepts, cost of capital, determining the appropriate financing mix, forecasting techniques, working capital management, and liquid asset management. (Prerequisites: ACCT 1810)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1900 Principles of Management (3 Credits) - This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 Entrepreneurship (3 Credits) - This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each student creating parts of a business plan. (Prerequisites: None)

MKT1920 Marketing Research (3 Credits) - This course involves practical application of the concepts of involved in marketing research. Students will work in teams to explore the fundamentals of marketing research by completing a major project. The course content includes: finding secondary data, conducting focus groups, organizing observational research, creating surveys, statistical analysis and report writing.

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel

function. (Prerequisites: None)

OTEC1820 Business English (3 Credits) - This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC2820 Business Communications (3 Credits) - This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 16 MNTC credits from 3 of the 10 MNTC Goal areas. Courses must be selected in consultation with advisor/faculty. Select 3 of the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

OR

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

Elective Arts and Science Credits

Select six credits in MNTC Goals 1 - 10 At least one course must be outside of MNTC goals 1 and 5. Select courses in consultation with advisor/ faculty.

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Culinary Arts - Associate of Applied Science Degree

67 Credits AAS3409, Academic Catalog 2024-2025

The Culinary Arts program is designed to meet the varied needs of food service establishments. Learners are provided with a background of hot and cold food preparation, food service management, and cost control. Demonstrations and practical experience provided in our operational dining room/cafeteria permit learners to develop the necessary food preparation skills for gainful employment.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (18 Courses)

Complete the following courses:

CULN1100 Introduction to Foodservice (2 Credits) - This course includes an introduction to the food service industry, culinary terms, use of weights and measures, and kitchen safety. The course also covers equipment and knife identification and use. (Prerequisites: None)

CULN1101 Sanitation & Food Safety (2 Credits) - This course develops an understanding of the basic principles of sanitation and safety in order to maintain a safe and healthy environment in the food service industry for the consumer. Also covered is an understanding of the laws and regulations related to sanitation in food service operations. (Prerequisites: None)

CULN1102 Culinary Math (1 Credit) - Students will learn standard units of measurements and unit conversions, recipe scaling, percentages, rounding, and yield tests as they relate to the food service industry. (Prerequisite: Next Generation Accuplacer Arithmetic score of 250 or higher or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher or completion of MATH 0075 with a grade of C (2.0) or higher)

CULN1103 Culinary Fundamentals 1 (4 Credits) - Students will learn basic concepts and principles of cooking. Students will be introduced to mise en place. Students will identify herbs and spices and different cooking methods. They will demonstrate proper knife skills and basic vegetable cuts. Students will make basic stocks, mother sauces and soups. (Corequisites: CULN 1101 and CULN 1104)

CULN1104 Culinary Fundamentals 2 (4 Credits) - Students will be introduced to all conventional and non-conventional cooking methods. They will convey knowledge and perform proper cooking of meats, poultry, fish, starches, and vegetables. They will expand their knowledge and skills in creation of sauces, from mother sauces to small sauces. In addition, they will create relishes, flavored oils, salsas, compotes, coulis, and purees. (Corequisite: CULN 1103)

CULN1105 Butchery (4 Credits) - This course covers the identification and preparation techniques of various cuts and grades of meats, poultry, fish/shellfish, and game meats. This course will also teach the processing (butchering) and the storage of fresh meats and the operation and cleaning of meat processing equipment. (Corequisite: CULN 1101)

CULN1106 World Cuisine & Cultures (2 Credits) - This course is designed to introduce students to world cuisines and their cultures. Students will prepare food from Europe, the Middle East, Africa, Asia and cuisines of the Americas. (Corequisite: CULN 1101)

CULN1200 Garde Manger 1 (3 Credits) - Students will be introduced to Garde Manger: the art of cold foods. They will gain knowledge and demonstrate skills used for the creation of salads, dressings, and a variety of hot and cold sandwiches. (Prerequisite: CULN 1101) (Corequisite: CULN 1201)

CULN1201 Garde Manger 2 (3 Credits) - Students will be introduced to the fine art of fruit and vegetable carvings, buffet presentations, appetizers, and hors d'oeuvres along with the art of charcuterie. (Corequisite: CULN 1200)

CULN1202 A la Carte Cooking & Production (4 Credits) - Students will apply the foundation of cooking techniques and fundamentals in a la Carte and batch cooking. Students will work as a team as well as individually to demonstrate their skills. (Prerequisite: CULN 1104)

CULN1203 Baking 1 (2 Credits) - This course covers the preparation and makeup of a variety of yeast raised doughs. Students use a variety of commercial equipment to produce breads, Danish, croissants, rolls and yeast raised coffee cakes. Students will be introduced to baking equipment, recipe conversions, and sanitation processes in a bakery. (Prerequisite: CULN 1101) (Corequisite: CULN 1204)

CULN1204 Baking 2 (4 Credits) - This course covers baking terminology, function of ingredients and the preparation of finished products: quick breads, pies, cakes, cookies, dessert sauces, custards, puddings, classical desserts, and specialty cake decorating. (Corequisite: CULN 1203)

CULN1205 Hospitality Nutrition (2 Credits) - This course covers the basic information to understand food trends, digestion and utilization processes, menu development for normal and special diets, and the preparation of nutritionally balanced meals. (Prerequisite: CULN 1100)

CULN1300 Culinary Management (4 Credits) - Students will learn of various management topics including: leadership, training, motivation, delegation, hiring, problem solving, and conflict resolution. Students will learn information and skills necessary to analyze and improve

profitability. Other topics covered are income statements, forecasting sales, labor and food costs. They will also learn about the cycle of food purchasing. (Prerequisite: CULN 1100)

CULN1301 Advanced Culinary (4 Credits) - This is the capstone culinary class where students demonstrate their advanced culinary abilities by creating a menu, developing a budget, planning and management of a team, menu preparation, and serving. (Prerequisites: CULN 1201, 1204)

CULN1302 Sustainable Foods & Organic Cooking (1 Credit) - Students will be introduced to sustainable farming and why it is important. They will also explore organic versus conventional farming and the nutritional differences. (Prerequisite: CULN 1100)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

Required Arts and Sciences (1 Course)

To complete an AAS degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas. Courses must be approved by advisor/faculty. Choose one COMM course from the following list:

COMM100 Introduction to Human Communication (3 Credits) - This course is an introductory survey course of the communication discipline. It provides a sample of topics from interpersonal communication, intercultural communication, public speaking, small group communication, media, organizational communication, and interviewing. This course will offer students knowledge about communication and offer the opportunity to improve their skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Required Arts and Sciences Course (1 Course)

Choose one course from MnTC Goal Area 9 (if COMM 110 is chosen, it will only be used in requirement 2 and will NOT fulfill this requirement).

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs; perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of

78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

Additional Arts and Sciences

Select 9 more credits from any MnTC goal area. Courses must be chosen in consultation with your Advisor.

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Culinary Arts - Diploma

55 Credits DIP3411, Academic Catalog 2024-2025

The Culinary Arts program is designed to meet the varied needs of food service establishments. Learners are provided with a background of hot and cold food preparation, food service management, and cost control. Demonstrations and practical experience provided in our operational dining room/cafeteria permit learners to develop the necessary food preparation skills for gainful employment.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (17 Courses)

CULN1100 Introduction to Foodservice (2 Credits) - This course includes an introduction to the food service industry, culinary terms, use of weights and measures, and kitchen safety. The course also covers equipment and knife identification and use. (Prerequisites: None)

CULN1101 Sanitation & Food Safety (2 Credits) - This course develops an understanding of the basic principles of sanitation and safety in order to maintain a safe and healthy environment in the food service industry for the consumer. Also covered is an understanding of the laws and regulations related to sanitation in food service operations. (Prerequisites: None)

CULN1102 Culinary Math (1 Credit) - Students will learn standard units of measurements and unit conversions, recipe scaling, percentages, rounding, and yield tests as they relate to the food service industry. (Prerequisite: Next Generation Accuplacer Arithmetic score of 250 or higher or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher or completion of MATH 0075 with a grade of C (2.0) or higher)

CULN1103 Culinary Fundamentals 1 (4 Credits) - Students will learn basic concepts and principles of cooking. Students will be introduced to mise en place. Students will identify herbs and spices and different cooking methods. They will demonstrate proper knife skills and basic vegetable cuts. Students will make basic stocks, mother sauces and soups. (Corequisites: CULN 1101 and CULN 1104)

CULN1104 Culinary Fundamentals 2 (4 Credits) - Students will be introduced to all conventional and non-conventional cooking methods. They will convey knowledge and perform proper cooking of meats, poultry, fish, starches, and vegetables. They will expand their knowledge and skills in creation of sauces, from mother sauces to small sauces. In addition, they will create relishes, flavored oils, salsas, compotes, coulis, and purees. (Corequisite: CULN 1103)

CULN1105 Butchery (4 Credits) - This course covers the identification and preparation techniques of various cuts and grades of meats, poultry, fish/shellfish, and game meats. This course will also teach the processing (butchering) and the storage of fresh meats and the operation and cleaning of meat processing equipment. (Corequisite: CULN 1101)

CULN1106 World Cuisine & Cultures (2 Credits) - This course is designed to introduce students to world cuisines and their cultures. Students will prepare food from Europe, the Middle East, Africa, Asia and cuisines of the Americas. (Corequisite: CULN 1101)

CULN1200 Garde Manger 1 (3 Credits) - Students will be introduced to Garde Manger: the art of cold foods. They will gain knowledge and demonstrate skills used for the creation of salads, dressings, and a variety of hot and cold sandwiches. (Prerequisite: CULN 1101) (Corequisite: CULN 1201)

CULN1201 Garde Manger 2 (3 Credits) - Students will be introduced to the fine art of fruit and vegetable carvings, buffet presentations, appetizers, and hors d'oeuvres along with the art of charcuterie. (Corequisite: CULN 1200)

CULN1202 A la Carte Cooking & Production (4 Credits) - Students will apply the foundation of cooking techniques and fundamentals in a la Carte and batch cooking. Students will work as a team as well as individually to demonstrate their skills. (Prerequisite: CULN 1104)

CULN1203 Baking 1 (2 Credits) - This course covers the preparation and makeup of a variety of yeast raised doughs. Students use a variety of commercial equipment to produce breads, Danish, croissants, rolls and yeast raised coffee cakes. Students will be introduced to baking equipment, recipe conversions, and sanitation processes in a bakery. (Prerequisite: CULN 1101) (Corequisite: CULN 1204)

CULN1204 Baking 2 (4 Credits) - This course covers baking terminology, function of ingredients and the preparation of finished products: quick breads, pies, cakes, cookies, dessert sauces, custards, puddings, classical desserts, and specialty cake decorating. (Corequisite: CULN 1203)

CULN1205 Hospitality Nutrition (2 Credits) - This course covers the basic information to understand food trends, digestion and utilization processes, menu development for normal and special diets, and the preparation of nutritionally balanced meals. (Prerequisite: CULN 1100)

CULN1300 Culinary Management (4 Credits) - Students will learn of various management topics including: leadership, training, motivation, delegation, hiring, problem solving, and conflict resolution. Students will learn information and skills necessary to analyze and improve

profitability. Other topics covered are income statements, forecasting sales, labor and food costs. They will also learn about the cycle of food purchasing. (Prerequisite: CULN 1100)

CULN1301 Advanced Culinary (4 Credits) - This is the capstone culinary class where students demonstrate their advanced culinary abilities by creating a menu, developing a budget, planning and management of a team, menu preparation, and serving. (Prerequisites: CULN 1201, 1204)

CULN1302 Sustainable Foods & Organic Cooking (1 Credit) - Students will be introduced to sustainable farming and why it is important. They will also explore organic versus conventional farming and the nutritional differences. (Prerequisite: CULN 1100)

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

Required Arts and Sciences (1 Course)

Choose one COMM course from the following list:

COMM100 Introduction to Human Communication (3 Credits) - This course is an introductory survey course of the communication discipline. It provides a sample of topics from interpersonal communication, intercultural communication, public speaking, small group communication, media, organizational communication, and interviewing. This course will offer students knowledge about communication and offer the opportunity to improve their skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Required Arts and Sciences Course (1 Course)

Choose one course from MnTC Goal Area 9 (if COMM 110 is chosen, it will only be used in requirement 2 and will NOT fulfill this requirement).

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against

immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs; perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

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Marketing Management - Associate of Applied Science Degree

60 Credits AAS3272/AAS2284, Academic Catalog 2024-2025

The Associate of Applied Science Marketing Management degree is designed to prepare individuals for employment in marketing, sales management, and retail management fields. Learners will explore current practices and acquire knowledge in marketing fundamentals, management, sales, retail operations, managing human resources, sales force management, managing a sales business for profitability, and new applications in the art of selling. Learners are required to participate in a business and industry internship in positions including customer services, sales, retailing, marketing, and advertising to reinforce newly acquired skills. In addition, the program requires Arts and Sciences courses designed to provide an understanding of the culture and environment in which we live. Advisors will work with students in developing a program of study, encouraging timely program completion. After completing an A.A.S. Degree in Marketing, graduates can transfer their program credits toward a Bachelor of Applied Science Degree in Marketing from Southwest Minnesota State University. Courses are offered at South Central in multiple modes, including ITV and online. See an advisor for program requirements.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (11 Courses)

Complete all of the following courses:

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

MKT1840 Principles of Advertising (3 Credits) - This course provides a broad overview of the entire advertising and sales promotion industry. The focus will cover the entire spectrum of paid and non-paid activities designed to encourage the purchase and use of products, services and ideas. Discussion will include theory and practice about advertising media, public relations, packaging, special events, creation of ads and evaluation.

MKT1900 Principles of Management (3 Credits) - This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 Entrepreneurship (3 Credits) - This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each student creating parts of a business plan. (Prerequisites: None)

MKT1920 Marketing Research (3 Credits) - This course involves practical application of the concepts of involved in marketing research. Students will work in teams to explore the fundamentals of marketing research by completing a major project. The course content includes: finding secondary data, conducting focus groups, organizing observational research, creating surveys, statistical analysis and report writing.

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel function. (Prerequisites: None)

MKT1940 Leadership Strategies (3 Credits) - This course is designed to help students recognize their leadership potential and help improve their interpersonal skills needed in today's workplace. Students will explore various leadership strategies through self assessment and reflection. Self assessments will then be used to provide the framework for developing career portfolios. Resume development, interviewing skills and networking are an integral part of the course.

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and

the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

Marketing Internship (6 Credits)

Complete the following internship courses:

MKT1817 Internship (3 Credits) - This course allows the student to receive practical experience in his/her chosen career area. A training plan outlining what will be learned is jointly developed among the student, employer and college. (Prerequisites: None)

MKT2817 Internship (3 Credits) - This course allows students the opportunity to continue to develop their marketing & management skills in an internship. (Prerequisites: None)

Required Arts and Sciences (4 Courses)

Complete the following Arts and Sciences courses:

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

Additional Arts and Sciences (8 Credits)

You will need to choose 8 more credits of Arts and Sciences to complete the 60 credits needed for graduation. Please consult with an advisor or faculty for assistance in choosing courses.

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Marketing Management - Certificate

30 Credits CERT3274, Academic Catalog 2024-2025

The Marketing Management Certificate is designed to provide skills for those individuals wishing to complete a compressed program of study with specific skills unique to their individual needs. With advisor approval, learners will develop a program of study consisting of 18 credits of technical courses and 12 credits of core management courses. Learners are encouraged to complete an internship, providing experience in the world of work.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Complete all of the following courses

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MGT2810 Retail Management (3 Credits) - This course focuses on the changing demographics of retail marketing, the growth of new retail formats and the use of information technology to enable quick responses to market dynamics through customer service, vendor-retailer partnering and employee diversity. (Prerequisites: None)

MGT2820 Introduction to Management Information Systems (3 Credits) - This course is an introduction to management information systems (MIS) and involves the interactions between technology and business practices. The course involves the planning, organizing and controlling of information technologies related to organizational objectives. Specific attention will be given to database management with a focus on contact management. The course also involves the use of spreadsheet applications, collaborative tools, and other technologies utilized in the business environment. (Prerequisites: None)

Elective Credits (18 Credits)

Choose 18 credits from the following courses:

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1817 Internship (3 Credits) - This course allows the student to receive practical experience in his/her chosen career area. A training plan outlining what will be learned is jointly developed among the student, employer and college. (Prerequisites: None)

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

MKT1840 Principles of Advertising (3 Credits) - This course provides a broad overview of the entire advertising and sales promotion industry. The focus will cover the entire spectrum of paid and non-paid activities designed to encourage the purchase and use of products, services and ideas. Discussion will include theory and practice about advertising media, public relations, packaging, special events, creation of ads and evaluation.

MKT1850 Professional Development I (1 Credit) - This course focuses on the importance of professionalism and leadership opportunities. Students will have the opportunity to improve their understanding, interpretation and participation in a variety of activities within the college and their community. Attendance in professional conferences, seminars and meetings will be required.

MKT1900 Principles of Management (3 Credits) - This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 Entrepreneurship (3 Credits) - This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each

student creating parts of a business plan. (Prerequisites: None)

MKT1920 Marketing Research (3 Credits) - This course involves practical application of the concepts of involved in marketing research. Students will work in teams to explore the fundamentals of marketing research by completing a major project. The course content includes: finding secondary data, conducting focus groups, organizing observational research, creating surveys, statistical analysis and report writing.

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel function. (Prerequisites: None)

MKT1940 Leadership Strategies (3 Credits) - This course is designed to help students recognize their leadership potential and help improve their interpersonal skills needed in today's workplace. Students will explore various leadership strategies through self assessment and reflection. Self assessments will then be used to provide the framework for developing career portfolios. Resume development, interviewing skills and networking are an integral part of the course.

MKT2817 Internship (3 Credits) - This course allows students the opportunity to continue to develop their marketing & management skills in an internship. (Prerequisites: None)

MKT2827 Marketing Management Internship (1 - 3 Credits) - This course allows the student to receive practical experience in his/her chosen career area. This internship is designed to offer students a customized experience. A training plan, outlining what will be learned, is jointly developed between the student, employer and the department site coordinator. This course is designed for students in Restaurant Management who need a minimum of 9 credits of internship or for Marketing Management or Business Management students wishing to further their internship experience with elective credits. (Prerequisites: It is recommended, after advisor review, that students register for this variable credit course after completing MKT 1817 & 2817)

OTEC2810 Computer Technology (3 Credits) - This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

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Marketing Management - Diploma

53 Credits DIP3273, Academic Catalog 2024-2025

The Marketing Management Diploma is designed to prepare individuals for employment in sales and marketing related positions requiring entry-level skills and knowledge necessary to perform typical job functions. Individuals seeking opportunities to upgrade present skills will also benefit from the diploma. Courses will cover the fundamentals of marketing, management, sales, retail operations, managing human resources, the art of selling, and entrepreneurship. Business and industry internships are required, with positions concentrating in a variety of areas including sales, customer service, retailing, advertising, and marketing. Arts and Sciences courses in public speaking and composition are required. Academic advisors will assist learners in choosing additional coursework for the diploma.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete all of the following courses:

MGT2810 Retail Management (3 Credits) - This course focuses on the changing demographics of retail marketing, the growth of new retail formats and the use of information technology to enable quick responses to market dynamics through customer service, vendor-retailer partnering and employee diversity. (Prerequisites: None)

MGT2820 Introduction to Management Information Systems (3 Credits) - This course is an introduction to management information systems (MIS) and involves the interactions between technology and business practices. The course involves the planning, organizing and controlling of information technologies related to organizational objectives. Specific attention will be given to database management with a focus on contact management. The course also involves the use of spreadsheet applications, collaborative tools, and other technologies utilized in the business environment. (Prerequisites: None)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1817 Internship (3 Credits) - This course allows the student to receive practical experience in his/her chosen career area. A training plan outlining what will be learned is jointly developed among the student, employer and college. (Prerequisites: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

MKT1840 Principles of Advertising (3 Credits) - This course provides a broad overview of the entire advertising and sales promotion industry. The focus will cover the entire spectrum of paid and non-paid activities designed to encourage the purchase and use of products, services and ideas. Discussion will include theory and practice about advertising media, public relations, packaging, special events, creation of ads and evaluation.

MKT1850 Professional Development I (1 Credit) - This course focuses on the importance of professionalism and leadership opportunities. Students will have the opportunity to improve their understanding, interpretation and participation in a variety of activities within the college and their community. Attendance in professional conferences, seminars and meetings will be required.

MKT1900 Principles of Management (3 Credits) - This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 Entrepreneurship (3 Credits) - This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each student creating parts of a business plan. (Prerequisites: None)

MKT1920 Marketing Research (3 Credits) - This course involves practical application of the concepts of involved in marketing research. Students will work in teams to explore the fundamentals of marketing research by completing a major project. The course content includes: finding secondary data, conducting focus groups, organizing observational research, creating surveys, statistical analysis and report writing.

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel function. (Prerequisites: None)

MKT1940 Leadership Strategies (3 Credits) - This course is designed to help students recognize their leadership potential and help improve their interpersonal skills needed in today's workplace. Students will explore various leadership strategies through self assessment and reflection. Self assessments will then be used to provide the framework for developing career portfolios. Resume development, interviewing skills and networking are an integral part of the course.

MKT2817 Internship (3 Credits) - This course allows students the opportunity to continue to develop their marketing & management skills in an internship. (Prerequisites: None)

Required Arts and Sciences (2 Courses)

Complete the following courses:

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

Elective Credits (3 Credits)

Complete 3 additional credits from any MGT, MKT, ACCT, OTEC, COMP or Arts and Sciences courses. Courses must be approved by advisor/faculty.

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Administrative Office Specialist - Associate of Applied Science Degree

60 Credits AAS3292/AAS2255, Academic Catalog 2024-2025

With the Administrative Office Specialist—Associate of Applied Science Degree, students can choose an emphasis from five options that best fit their interests. Students who are interested in more than one emphasis will benefit from an overlap in the core curriculum, so they can earn several degrees with a minimum number of additional credits.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Note: Keyboarding Prerequisite Requirement

Students must either currently have or attain the skills in OTEC1001 Computer Software for College and OTEC1790 Keyboarding for College before entry in the Office Administration and Technology programs.

Required Core Courses 11 Courses / 35 Credits (required for ALL emphasis areas)

Complete all of the following courses:

OTEC1820 Business English (3 Credits) - This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC1822 Microsoft Excel (4 Credits) - This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1840 Microsoft PowerPoint (3 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft PowerPoint. It begins with the introduction of concepts such as creating a basic presentation with pictures, shapes, and WordArt, adding media and animation. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as customizing templates and handouts using masters, developing presentations with content from outside sources, and organizing slides and creating photo albums. (Prerequisites: None)

OTEC1860 Microsoft Word (4 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2800 Office Keyboarding (3 Credits) - This course covers the continuing development of keyboarding speed and accuracy. Advanced document formatting, such as letters, tables with special features, templates, labels, mail merges, multi-page reports, columns, etc., will be included. Students will continue to develop proofreading skills as they format documents from straight copy, rough draft, handwritten copy, and arranged and unarranged sources. (Prerequisite: A minimum keyboarding speed of 40 words per minute on a 3-minute timing, with 3 errors or less or advisor approval.)

OTEC2810 Computer Technology (3 Credits) - This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

OTEC2815 Employment Portfolio (3 Credits) - This course is a capstone course for the Office Administration and Technology program. This course will focus on developing knowledge that will serve as a foundation for the student's employment search process by assisting him/her in the development of successful marketing strategies for employment. As a capstone course, students are given an online assessment of the use of software and keyboarding skills to ensure competence prior to graduation. Students will develop distinctive portfolios to assist in their career search. Limited to final semester Office Administration and Technology program students. (Prerequisites: OTEC1860, OTEC2820)

OTEC2820 Business Communications (3 Credits) - This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and

organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

OTEC2850 Integrated Information Systems (3 Credits) - This is an intensive course that provides project-based learning with a business scenario setting utilizing critical thinking skills. The projects emphasize the integration of various computer applications to create professional documents. Students will incorporate time management, electronic communication, Internet searches, and current technology practices to be successful in an office work setting. (Prerequisites: OTEC 1822, OTEC 1840, OTEC 1860, OTEC 2870)

OTEC2870 Information Resource Management (3 Credits) - This course covers rules and procedures for coding, indexing, filing, and retrieving documents in alphabetical, numeric, geographic, and subject systems. Applications include simulated correspondence filing and card filing using both manual and electronic methods. Students will learn how to use database management software to manage information. Records management topics emphasize records control and retention, final disposition of records, and records management issues and trends. (Prerequisite: None)

OTEC2915 Internship (1 - 3 Credits) - This course is designed to provide the student with a purposeful occupational experience in the Office Administration and Technology field. The internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. (Prerequisites: OTEC 1822, OTEC 1860, OTEC 2820 or Internship Coordinator's approval.) Variable credits depending on emphasis selected: Administrative Office Specialist- Legal: 3 credits. Administrative Office Specialist-All other emphasis areas: 2 credits.

Office Specialist Emphasis

This degree is designed to prepare learners for employment as administrative assistants. Administrative assistants perform a variety of tasks, which may include the following: learn and use various computer applications, prepare and edit business documents, file, manage records, use electronic calendars, handle telephone calls, schedule meetings, make travel arrangements, greet visitors, and process mail. Other responsibilities may include the following: perform research, supervise or train others, record minutes at meetings, purchase equipment and supplies, and present data. After completion of this program, students will be proficient with verbal and written communications, as well as decision-making and problem-solving skills.

Complete the following courses:

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

Required Arts and Sciences for Office Specialist - 16 credits from 3 MnTC Goal Areas

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 1: Communication)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 9)

Choose 10 more LAS credits in consultation with Advisor

Office Specialist – Financial Emphasis

This program is designed to prepare learners for employment as administrative office specialists in financial offices. Administrative office specialists in financial offices perform a variety of tasks, which may include learning and using various computer applications, preparing and editing business documents, filing, managing records, using electronic calendars, handling telephone calls, scheduling meetings, making travel arrangements, greeting visitors, and processing mail. Other responsibilities may include: routine calculating, posting, and verifying primary financial data in maintaining accounting records, preparing daily bank deposits, writing checks, and maintaining a cash disbursement system.

Complete the following courses:

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 Payroll Accounting (3 Credits) - This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

Required Arts and Sciences for Financial Emphasis - 15 credits from 3 MnTC Goal Areas

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 1: Communication)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

OR

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 9)

Choose 6 more LAS credits in consultation with Advisor

Office Specialist - Legal Emphasis

This program is designed to prepare learners for employment as administrative office specialists in legal offices. Legal administrative assistants perform the administrative tasks in a law office such as answering the telephone, managing the electronic and paper files, transcribing, preparing law office correspondence and legal documents, maintaining the calendar, personal contact with attorneys, courthouse personnel, law office personnel, and others. In addition, the legal administrative assistant drafts documents, gathers information relevant to the client's

case, has personal and phone contact with the client, and does minimal legal research. Overall, the legal administrative assistant manages the procedural tasks for clients in the law office with an attorney's supervision. All courses in this program are offered online.

Complete the following courses:

ADS1201 Civil Litigation and Criminal Law (Ridgewater College) (3 Credits) - This course covers the legal terminology, procedures, and documents used in the practice of civil litigation and criminal law. Topics include document drafting, legal research and analysis, ethical considerations, and trial preparation.

ADS1202 Real Estate and Corporate Law (Ridgewater College) (3 Credits) - This course covers the legal procedures, documents, and terminology relating to real estate and corporate law. Real estate law includes ownership methods, legal descriptions, transfer and financing documents. Corporate law includes major business ownership structures and the documents and formalities followed in each.

OR

ADS1203 Family Law and Estate Planning/Probate (Ridgewater College) (3 Credits) - This course covers the legal terminology, procedures, and documents used in the practice of family law and estate planning and probate administration. Topics include property and deed drafting and formation of business structures.

ADS1204 Legal Documentation (Spring odd years only - Ridgewater College) (3 Credits) - This course covers the drafting and editing of mailable legal documents and transcription of dictated material using word processing software. Emphasis will be on utilizing legal forms and materials, legal terminology, building accuracy in document keying, editing, and proofreading.

Required Arts and Sciences for Legal Emphasis - 15 credits from 3 MnTC Goal Areas

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 1: Communication)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 9)

Choose 9 more LAS credits in consultation with Advisor

Office Specialist - Medical Emphasis

This program is designed for learners interested in working in a medical facility and who enjoy office work. Learners will become proficient in keyboarding, word processing, grammar and sentence structure, medical terminology, computer technology, and medical records. The increased technology in this field demands skilled office personnel as physicians and other health care professionals rely upon the expertise of the Administrative Office Specialist. Examples of duties include scheduling appointments, reviewing medical prior authorizations, and verifying medical insurance. The opportunity to work in many health care settings is appealing for those wishing to engage with health care specialists and patients. Employment opportunities would include clinics, hospitals, long-term care facilities, chiropractic clinics, and other health care related facilities.

Complete the following courses:

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

HC1525 Health Care Core Foundations (1 - 4 Credits) - This variable credit course will focus on the requirements needed by healthcare professionals to effectively work in a variety of healthcare settings and explore workplace skills such as accountability and responsibility, workplace behavior, approaches to assist clients, and expectations of teams and team members. This course provides a framework for healthcare workers to interact with diverse clients and staff, including belief systems, cultural practices, and respect and sensitivity to cultural, gender, and age issues. Identifying elements of communication and how those elements can develop into effective communication within the healthcare setting is a key focus, as well as learning when and how to utilize those skills in challenging situations. Health care ethics will be

addressed and target ethical decision-making and personal and professional values. Legal issues in healthcare will round out the course, concentrating on healthcare laws and social media in healthcare. Healthcare safety and standards precautions will be incorporated, as well as personal wellness for the healthcare professional. This variable credit course was designed as a part of the Minnesota Health Care Core Curriculum. (Prerequisites: None)

HC1550 Electronic Health Records (2 Credits) - With the implementation of the electronic health record in today's healthcare environment, it's essential for students entering the healthcare field to understand this technology and how it relates to work in the industry. This course is designed as an introduction to the history of Electronic Health Records (EHRs) and concepts behind the structure of electronic medical recording systems. Additionally, it will provide students the opportunity to use multiple functions of an educational electronic health record. (Prerequisites: None)

MA1020 Medical Office Procedures (3 Credits) - This course will review administrative duties that are performed by a medical assistant. Emphasis will be on clerical functions, bookkeeping procedures, insurance claims, professional communications, medical coding, legal concepts, medical office operational functions including written and electronic. (Prerequisite: Acceptance into one of the following programs: Medical Assisting, Health Unit Coordinator, or Administrative Office Specialist - Medical)

Required Arts and Sciences for Medical Emphasis - 16 credits from 3 MnTC Goal Areas

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 1: Communication)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 9)

OR

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 2, 9)

Choose 10 more LAS credits in consultation with Advisor

Office Specialist - Technical Emphasis

This program is designed to prepare learners as Administrative Office Specialists with a focus on technical support. Learners will develop skills in computer software, electronic mail, network management, media management, applications support, systems administration tasks, computer maintenance, Internet, and emerging software technologies.

Complete the following courses:

COMP1140 Web for Business (3 Credits) - This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 PC Hardware and Software Essentials (4 Credits) - PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 Introduction to Data Communications and Networking (4 Credits) - This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet.

The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

Required Arts and Sciences for Technical Emphasis - 15 credits from 3 MnTC Goal Areas

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 1: Communication)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 7, 9)

Choose 9 more LAS credits in consultation with Advisor

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Administrative Office Specialist - Business Software - Certificate

14 Credits CERT3293/CERT2256, Academic Catalog 2024-2025

The Administrative Office Specialist Business Software Certificate allows learners to upgrade their technology and software skills. Learners will learn the Microsoft Office applications including Word, Excel, and PowerPoint. Students may choose from a varied list of electives to tailor the certificate to their individual needs.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Complete the following courses:

OTEC1822 Microsoft Excel (4 Credits) - This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1840 Microsoft PowerPoint (3 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft PowerPoint. It begins with the introduction of concepts such as creating a basic presentation with pictures, shapes, and WordArt, adding media and animation. It continues with the basic skills students need to acquire to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as customizing templates and handouts using masters, developing presentations with content from outside sources, and organizing slides and creating photo albums. (Prerequisites: None)

OTEC1860 Microsoft Word (4 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2810 Computer Technology (3 Credits) - This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

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Administrative Office Management - Associate of Science

60 Credits AS3281/AS2281, Academic Catalog 2024-2025

Learners enrolled in the Administrative Office Management Associate in Science (A.S.) Degree are prepared to manage functions in the office environment. This degree option is recommended for experienced office professionals as well as entry-level administrative professionals who are looking to increase their potential for promotion. Graduates with this degree receive training in a variety of office management functions including those in communications, information resources, and management. Learners earn half of the required credits (30) in business-related courses and the other half (30) in business-related liberal arts and sciences classes. Learners may also choose to transfer this degree to Winona State University's Bachelor of Science Degree in Business Education - Teaching to prepare as a business educator or as a corporate trainer.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

NOTE: Basic Entrance Requirement

Students must either currently have or attain the skills in OTEC 1001 Computer Software for College and OTEC 1790 Keyboarding for College before entry in the Office Administration and Technology programs.

Required Technical Courses (8 Courses)

Select the following courses:

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

MKT1930 Human Resource Management (3 Credits) - This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and other areas essential to the personnel function. (Prerequisites: None)

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

OTEC1820 Business English (3 Credits) - This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC1822 Microsoft Excel (4 Credits) - This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1860 Microsoft Word (4 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2820 Business Communications (3 Credits) - This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and

organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

Select 3 credits from the following courses: (3 Credits)

ACCT1700 Personal Financial Management (3 Credits) - The purpose of this course is to provide insight into personal financial decision making. This includes budgeting, banking, use of credit and credit cards, renting vs. owning a home, retirement investing, investment opportunities, insurance, income taxes, wills, and effects of financial distress on one's life. In addition, we will compare income levels for various occupations. Students will examine real life situations. There will be some professional guest speakers who will share their expertise with the students. (Prerequisites: None)

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

Required Arts and Sciences (4 Courses)

To complete an AS degree, students must complete 30 MNTC credits from 6 of the 10 MNTC goal areas. You are required to complete MNTC Goal 6 by taking two courses from two disciplines. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

Additional Required Arts and Sciences: (1 Course)

Choose one course from the following list of MNTC Goal Area 3 courses:

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

OR

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

OR

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

Additional required MNTC Goal Area 5 course: (1 Course)

Choose 1 additional History or Social Science course not in ECON.

Additional required MATH Course (1 Course)

Choose one course from the following list:

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

OR

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

OR

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Additional required MNTC Goal 6 Courses

Choose TWO courses from TWO different disciplines in MNTC Goal 6.

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Administrative Office Specialist - Client Relations - Certificate

23 Credits CERT3294/CERT2257, Academic Catalog 2024-2025

This program is designed to prepare learners for employment as a client relations specialist. Because client relations specialists answer questions from external and internal customers about the organization, they need to develop strong interpersonal and communication skills. Client relations specialists may be asked to perform general office responsibilities as well as client relations tasks.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Note: Keyboarding Prerequisite Requirement

Students must either currently have or attain the skills in OTEC1001 Computer Software for College and OTEC1790 Keyboarding for College before entry in the Office Administration and Technology programs.

Required Technical Courses (7 Courses)

Complete all of the following courses:

MKT1830 Customer Service (3 Credits) - This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

OTEC1820 Business English (3 Credits) - This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC1822 Microsoft Excel (4 Credits) - This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1860 Microsoft Word (4 Credits) - This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2800 Office Keyboarding (3 Credits) - This course covers the continuing development of keyboarding speed and accuracy. Advanced document formatting, such as letters, tables with special features, templates, labels, mail merges, multi-page reports, columns, etc., will be included. Students will continue to develop proofreading skills as they format documents from straight copy, rough draft, handwritten copy, and arranged and unarranged sources. (Prerequisite: A minimum keyboarding speed of 40 words per minute on a 3-minute timing, with 3 errors or less or advisor approval.)

OTEC2810 Computer Technology (3 Credits) - This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

OTEC2820 Business Communications (3 Credits) - This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

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Associate of Arts - Associate of Arts Degree

60 Credits AA3590/AA2590, Academic Catalog 2024-2025

The Associate in Arts (AA) degree is awarded for successful completion of a 60 semester credit program in Arts and Sciences and is intended primarily for students who plan to transfer to another college or university to complete a bachelor's degree. Although no specific major is listed in conjunction with this degree, students may choose to concentrate in a particular field of study in preparation for a planned major or professional emphasis at a four-year college or university. An AA degree must include the entire 40-credit Minnesota Transfer Curriculum (MNTC) specified below, which, pursuant to Minnesota statute, must transfer to any institution in the Minnesota State Colleges and Universities System or to the University of Minnesota. Students are strongly encouraged to develop an educational plan with their academic advisor and the Transfer Specialist to assure that AA degree and pre-major requirements are fulfilled.

General Requirement

Completing the Minnesota Transfer Curriculum (MnTC) requirement alone satisfies the lower division general education requirement at all Minnesota two and four-year public colleges and universities.

To complete the Minnesota Transfer Curriculum students must:

1. Complete all ten goals.
2. Complete at least 40 college-level credits from courses listed within the ten goal areas MnTC.
3. Earn a cumulative GPA of 2.0 or higher and a 67% completion rate in coursework completed at South Central College.

Associate of Arts Degree / Graduation Requirements:

Complete a total of 60 semester credits numbered 100 and above (college level) as described below:

1. Complete the Minnesota Transfer Curriculum (MnTC)
2. Complete the FYE 100 First Year Experience course (1 credit) within the first three semesters (Fall, Spring, Summer) of attendance at South Central College. This course is required for all A.A. students unless the student has:
Completed 24 college level credits at another institution or in another SCC program before transferring to the AA program
Taken a First Year Experience course at another accredited college
3. Complete electives to meet 60 semester credits (Up to 16 credits can be from technical/career courses)
4. Complete at least one (1) credit in a health and wellness course
5. Earn a cumulative GPA of 2.0 and a 67% completion rate
6. Earn a GPA of 2.0 or higher in MnTC coursework.

NOTE: Credits from repeated courses count only once

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Goal Area 1 - Communication

The following courses apply to MNTC Goal 1. To complete the goal, students must complete ENGL 100 and one COMM course.

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM100 Introduction to Human Communication (3 Credits) - This course is an introductory survey course of the communication discipline. It provides a sample of topics from interpersonal communication, intercultural communication, public speaking, small group communication, media, organizational communication, and interviewing. This course will offer students knowledge about communication and offer the opportunity to improve their skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

OR

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking

and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

OR

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Goal Area 2 - Critical Thinking

The following courses apply to MNTC Goal 2.

CAP250 Associate of Arts Capstone Class (1 Credit) - This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

CRTK100 Critical Thinking (3 Credits) - This course helps students acquire and develop critical thinking skills. Focused on the practical application of the principles of good reasoning, it encourages them to cultivate cognitive virtues such as consistency, self-awareness, open-mindedness, fairness, and intellectual humility. Students will be taught how to: recognize (and make) good arguments, identify (and avoid) logical fallacies and cognitive biases, articulate ideas in a clear and precise way, understand the significance and limits of the scientific method, and critically evaluate sources in the media. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: 2 Critical Thinking)

HUM100 Critical Thinking (3 Credits) - This course introduces students to the importance of critical thinking in our culture today. Students will be provided with methods of critical thinking as well as relevant topics on which to practice their skills. (Prerequisites: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0080 and READ 0090 or READ 0095 with a grade of C or higher) (MNTC 2: Critical Thinking)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL220 Cyber Ethics (4 Credits) - This course introduces students to basic ethical theories and concepts and applies them to emerging issues in technology. It includes consideration of the ethical obligations of workers in technology industries along with controversies regarding social media, privacy, censorship, automation, and online discrimination. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC Goal Areas: 2 and 9).

Goal Area 3 - Natural Sciences

The following courses apply to MNTC Goal 3. To complete the goal, students must select at least two courses from two different disciplines.

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

BIOL115 General Biology I (4 Credits) - This course covers biological processes at the cellular and molecular level. It serves as an introduction to macromolecules and metabolism, cell biology, Mendelian genetics, and gene expression. This course involves a weekly three hour lab. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC Area 3)

BIOL116 General Biology II (4 Credits) - This course covers biology at the organismal, population and system level. It will emphasize organismal diversity, population and community ecology and ecosystems. Students will gain an understanding of how evolutionary advances have occurred among populations due to natural selection. This course involves a weekly three hour lab. (Prerequisites: Next-Generation Accuplacer score of 250 or above, or Classic Accuplacer Reading score of 78 or higher, or either ENGL 0090 or EAP 0095 or READ 0095 with a C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND a Next-Generation Accuplacer QAS score of 237 or higher or Classic Accuplacer College Level Math score of 50 or higher, or either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC area 3)

BIOL162 Human Biology (4 Credits) - This one-semester course is an introduction to the biology of the human body. Basic form and function of the body systems and their interactions will be emphasized. Other topics include: terminology, basic chemistry, cell biology genetics, molecular biology and nutrition as it relates to the human body. This course contains a laboratory portion. (Minnesota Transfer Curriculum goal area 3) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL211 Genetics (4 Credits) - This is an introductory Genetics course which covers the study of biologically inherited traits. It will emphasize Medelian genetics as well as molecular genetics. Students will explore classical, population, and molecular genetics. Students will learn genetics through lecture, solving genetics problems, and demonstrating concepts from lecture through laboratory experimentation. (Prerequisites: BIOL 115. BIOL 116 is strongly recommended) (MNTC Goal Area 3)

BIOL215 General Ecology (4 Credits) - This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL240 Pathophysiology (3 Credits) - This course provides an in-depth study of the chemical, biological and psychological process involved with alterations of health, using systemic and non-systemic approaches. Through case studies, students will test theories taught in class by reading background information about patients, forming possible diagnosis, deciding what tests to run, analyzing data and forming conclusions about the patients conditions. They will then justify possible treatments. (Prerequisite: Completion of BIOL 230 with a grade of C or better.) (MNTC 3: Natural Sciences)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

CHEM120 Principles of Chemistry I (5 Credits) - This course introduces the student to the basic principles of chemistry including atomic and molecular structure, bonding, chemical reactions, solution chemistry, stoichiometry, thermochemistry, periodicity, and states of matter. Laboratory reinforces lecture concepts. (Prerequisites: Accuplacer College Level Math score of 103 or ACT Math score of 22 or MATH 120 or currently taking MATH 120 is needed)

CHEM121 Principles of Chemistry II (5 Credits) - Principles of Chemistry II is the second in a series of Chemistry courses designed for students who plan to major in a scientific or health related field. Topics include kinetics, chemical equilibria, acids and bases, buffers, precipitation reactions, thermodynamics, and electrochemistry. Lab topics reinforce lecture concepts. (Prerequisite: CHEM 120) (MNTC 3: Natural Sciences)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

Goal Area 4 - Mathematical/Logical Reasoning

The following courses apply to MNTC Goal 4. To complete the goal, students must complete one course.

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer

Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH131 Calculus I (4 Credits) - This course introduces the key concepts of the derivative and the integral. Beginning with the definition of limit, the notion of continuity is developed which is perhaps the most important thread running throughout the calculus. This leads naturally to the process of differentiation and then integration, concluding with the all important Fundamental Theorem of the Calculus. Along the way, applications to classical and modern science, economics, the social sciences and other fields are explored. (Prerequisites: Next-Generation Accuplacer AAF score of 276 or higher or Classic Accuplacer College Math score of 103 or higher or ACT Math score of 24 or higher or completion of either MATH 125 or MATH 130 with a grade of C (2.0) or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH132 Calculus II (4 Credits) - In this continuation of Calculus I, you will begin by investigating more applications of the definite integral, along with useful techniques for evaluating them. This leads in a natural way to a brief introduction to differential equations, and the evaluation of improper integrals and indeterminate forms. Next, the calculus of the transcendental functions is explored in some detail. Then the study of sequences and series is taken up, including power series and Taylor series. Important geometrical concepts such as polar coordinates, parametric equations and vectors in the plane and in space are also covered. (Prerequisites: MATH 131, with a grade of C or better) (MNTC 4: Mathematical/Logical Reasoning)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Goal Area 5 - History and the Social and Behavioral Sciences

The following courses apply to MNTC Goal 5. To complete the goal, students must complete at least two courses from two different disciplines.

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading

score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GEOG200 Special Topics in Geography: (3 Credits) - Students will explore a region to learn its unique characteristics and how its physical geography and human geography are closely linked within that region. The focus will be on real-world and hands-on activities that will use an inquiry-driven approach to learning. When applicable, geographic tools, such as GIS (Geographic Information Systems), remote sensing, and map skills, will be presented. The course will have a research component. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5: History & Social & Behavioral Sciences)

HIST120 U.S. History I (4 Credits) - This course surveys the history of America from the contributions of the indigenous Indian people through the Colonial Era (17th and 18th centuries) to the American Revolution and Early Republic (18th and 19th centuries). It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 7: History & Social & Behavioral Sciences, Human Diversity)

HIST121 U. S. History II (4 Credits) - This course surveys the history of America from the Civil War and Reconstruction, through the New South and the New West, Industrialization, Populism and Progressivism, World War I, the Great Depression and the New Deal, World War II, Cold War America, the 1960's, Vietnam and Beyond. It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

HIST160 World History I (4 Credits) - This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 World History II: The Rise of the West (4 Credits) - The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist

and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST205 Special Topics in History: (1 - 4 Credits) - Any HIST class has been specially designed by an SCC History instructor to appeal to SCC students. The instructor has chosen the subject material related to his/her interests, students' interests, or his/her teaching expertise. (Prerequisites: Any HIST course or instructor permission) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC250 Industrial Organizational Psychology (4 Credits) - Industrial-organizational (I/O) psychology is the scientific study of the workplace. Students will be introduced to a variety of issues of relevance to business and industry, including selection and placement of employees, the importance of training and development, organizational development and evaluation, employee motivation and productivity, and the importance of fostering work-life balance. Diversity among organizations and cultures in how they approach these issues will be emphasized. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC280 Special Topics in Psychology: (4 Credits) - This course is designed to provide students with a deeper understanding of a special topic within the field of psychology. Key theoretical and historical underpinnings will be presented to prepare a foundation of understanding. Attention will be focused on how the topic has or may add to the knowledge base of psychology and, if applicable, other academic disciplines. Students will explore the actual or potential applicability of the topic to self, others, and society at large. The course will have a research component. Course may address one of Goal Areas 7-10 depending on the topic. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5: History/Social & Behavioral Sciences)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOC201 Marriage and Family (3 Credits) - The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs; perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

Goal Area 6 - Humanities and Fine Arts

The following courses apply to MNTC Goal 6. To complete the goal, students must select at least two courses from two different disciplines.

ART100 Art Appreciation (3 Credits) - Art Appreciation is the historical and topical study of art and its relationship to culture and society. This course incorporates the extensive use of visual materials to teach the essentials and aesthetics of art, civilization, and daily life. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ART130 Painting (3 Credits) - Painting is an introductory studio course in the elements of traditional and contemporary oil painting. Students will explore and discuss the various techniques and methods basic to the creation of paintings. Students will participate in the discussions and critiques of traditional and contemporary paintings and explore the creative process via the medium of oil paint. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART135 Introduction to Watercolor (3 Credits) - This course is an introduction to Watercolor and the various ways it can be used as a creative tool for aesthetic and conceptual understanding. Students will expand their skills in compositional design through the study and practice of the Elements of Art and the Principles of Organization: Line, Shape, Texture, Value, Color, Space, Balance, Emphasis, Rhythm, Scale/Proportion and Unity. Also examined and practiced in class are the painting techniques of watercolor, including the preservation of whites, transparencies, bleeds, dropping color, wet on wet technique, drybrush and lifting. Through lectures and visual references, historical and contemporary examples of watercolor will be explored and analyzed to expand students understanding of fine art and their own work within this context. In addition, students will learn how to discuss, analyze and evaluate their own work as well as the work of their peers, through class discussions and critiques. Additional learner supplies will be required for this course. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART145 Mixed-Media (3 Credits) - This course engages students in a three-dimensional art making experience that draws from a variety of studio practices. Students will participate in artistic endeavors involving traditional and non-traditional materials, techniques and concepts. Emphasis is placed upon the development of aesthetic, conceptual and technical skills to further personal artistic evolution. (Prerequisite: none.) (MNTC 6: The Humanities--The Arts, Literature and Philosophy)

ART150 Drawing I (3 Credits) - This drawing course will further the students' understanding of the core elements of drawing: line, composition, perspective, proportion, texture, value, and shading. These drawing elements will be taught through both traditional and modern methods. The course will also include several short lectures to give examples of the work, and to expand art appreciation. There will be a strong emphasis on the student's ability to critique their own work along with their peers. The dialogue within the classroom will help to expand the student's skills and process. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART170 Digital Video Production (3 Credits) - This course introduces students to the fundamentals of digital video production. Students will learn how to produce digital video productions utilizing story-boarding, lighting and shooting techniques. Students will use video and audio editing software to import, assemble and edit clips, add transitions, create super-impositions and titles in finished video productions. In addition, they will learn hardware set-up, capturing techniques and video compression schemes as they output their work to various video formats. The course also examines the history and application of video in contemporary art, documentary, film and television production. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART201 Art History I (3 Credits) - This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 Art History II (3 Credits) - This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART240 Digital Photography 2 (3 Credits) - This course will introduce the student to both the practical and theoretical application of controlling the digital photographer's most important tool, light. The course will deal with, through the use of light modifying devices and

software, how to control the direction, quantity, quality, ratio and color of light for both outdoor (natural) and indoor (existing) light. Students enrolled in this course will study advanced lighting techniques, contemporary practices and theories in digital photography. Students will work with intermediate and advanced digital imaging software. This course will emphasize the student's development of individual artistic voice applied in a portfolio of digital photographic images. Students enrolling in this course are required to supply their own digital camera, tripod, image editing software, and lighting equipment as specified in the course syllabus. Image editing software will also be available for use in the open computer lab at South Central College's North Mankato campus. (Prerequisite: ART 140 or instructor approval) (MNTC 6: Humanities and Fine Arts)

ART250 Drawing II (3 Credits) - This course builds upon the concepts of Drawing I (ART 150). Students will further their understanding of drawing issues by creating artwork that explores process, personal imagery, formal analysis, and conceptual goals. Historical and contemporary models will continue to be explored and discussed relative to the students' own artwork. (Prerequisite: ART 150) (MNTC 6: The Humanities--The Arts, Literature and Philosophy)

ART270 Digital Video Production 2 (3 Credits) - This course covers advanced digital video techniques including scripting, lighting, shooting, editing and the overall video/audio production sequence. Students will develop advanced skills for any profession that involves video production such as television, documentation, filmmaking, contemporary art, web design, multimedia communication, animation and computer gaming. Students will use advanced non-linear video and audio editing software. Final project is a video series or single production of substantial length within the field of artistic, commercial and/or documentary video. Students will examine and utilize advanced application of cinematic philosophy, production techniques and technologies in the fields of film, videography, documentary production, and multimedia. This course also covers the current visual culture and how it applies to a digital cinematic/video production. Students will participate as a member of a production crew on college productions when available. (Prerequisite: a grade of C or higher in ART 170 or instructor permission) (MNTC 6: Humanities and Fine Arts)

ENGL110 Introduction to Literature (4 Credits) - Introduction to Literature allows students to sample various literary forms (plays, prose, poetry, nonfiction) from various histories and cultures. The course is designed to develop critical thinking, reading and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and the Fine Arts)

ENGL111 Introduction to Film (4 Credits) - This course is designed to introduce and acclimate students to film as a significant artistic, rhetorical and cultural medium. Course content focuses on film as an element of popular culture, as well as film genres, cinematic techniques and cinematic conventions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL120 Human Diversity in Literature and Film (4 Credits) - This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

ENGL130 World Literature and Film (4 Credits) - This course introduces students to works of literature and film from a variety of world cultures. The course is designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation and in seeing, believing, and being. The course emphasizes critical thinking, reading, and writing. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ENGL140 British Literature (4 Credits) - This is a one-semester course for students who are interested in the development of English thought and language from the days of the Anglo-Saxons to the present time. Students will examine the historical context of the literature as well as particular authors, ideas, and styles. Class time will be devoted to reading, discussing, and analyzing selected groups of writings representative of major historical periods in the development of British writing. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL150 Introduction to Poetry (4 Credits) - This course introduces students to various elements of the genre of poetry, including (but not limited to) word choice, images, figures of speech, symbols, sounds, patterns of rhythm, and poetic forms. Students will use literary criticism techniques as they study poets and poems from many times, places, and movements of literature. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL160 Introduction to Short Story (4 Credits) - This course introduces students to the genre of short story and literary analysis. Students will examine literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. They will also study the authors and the influence of history and place on the short story form. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL205 Special Topics in Literature & Film: (4 Credits) - This course helps students understand how literature and film tell stories and create versions of history. Students will explore literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. Students will also study the individual cultures that generate the narratives covered in the class. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ENGL206 Children's Literature (4 Credits) - Children's literature provides a survey of literature for children, including its history and its place in contemporary society. The course introduces students to literature for children from birth to age 21, pairing literature with cognitive, emotional, and social development. Students will explore children's literature as real literature, examining literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. We will also study how cultures generate narratives, and how children's literature can create its own version of history while reflecting its culture(s). (MNTC Goal Area 6 Humanities and Fine Arts) (Prerequisites: ENGL 100 or instructor permission)

ENGL210 Introduction to Creative Writing (4 Credits) - This course introduces students to the study of creative writing. Course content focuses primarily on reading several genres of writing (e.g., short story, poetry, non-fiction, and play/screenplay) and then practicing those forms and completing constructive critique of students' practice. (Prerequisite: ENGL 100 or instructor permission) (MNTC 6: Humanities and Fine Arts)

HUM121 Introduction to the Humanities (4 Credits) - This course is an overview of the principal trends in Western thought and artistic expression from ancient times to the contemporary. Its aim is to foster an appreciation of how diverse ideas and works of art have contributed to our understanding of the universal human experience. Classroom instruction will be supplemented by guided tours of museums/exhibitions, and attendance at live performances of works pertinent to the course. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities & Fine Arts)

HUM130 China: Cultural Tradition and Change (3 Credits) - Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective).

HUM150 Global Connections Travel Seminar (1 Credit) - The Global Connections Seminar is a one-credit course which prepares students for traveling with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

HUM205 Special Topics in the Humanities: (1 - 4 Credits) - This course has been specially designed by an SCC Humanities instructor to appeal to SCC students. The instructor has chosen the subject material related to her or his interests, students' interest, or his or her teaching expertise. (MnTC 6: Humanities and Fine Arts) (Prerequisites: None)

HUM250 Global Connections Travel Seminar II (1 - 3 Credits) - The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 Global Philosophies (3 Credits) - This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

PHIL205 Special Topics in Philosophy: (1 - 3 Credits) - All PHIL 205 courses will help students learn about other areas of philosophy which are important to the study of other disciplines and philosophy itself. Students will explore broader areas of philosophical concern such as metaphysics (free-will, truth, realism, universals, necessity/contingency, causation, mind, time, God, etc.); epistemology (skepticism, inferential justification, knowledge, internalism/externalism, a priori/a posteriori, closure, direct/indirect realism, memorial knowledge, etc.); meta-ethics (moral knowledge, oral realism/anti realism, ethical intuitionism, reductionisms such as utilitarianism, relativism, subjectivism, divine command theory, contractarianism, Aristotelianism/teleology, virtue ethics, etc.). Furthermore, students can also focus on political philosophy, philosophy of religion, and philosophy of science or specialize in some facet of the above topics. All PHIL 205 courses will emphasize the use of primary texts and the development of philosophical thought throughout history. These courses will focus on the most basic questions of human existence (this indeed is philosophy) such as truth, knowledge, free-will, moral rightness, justice, and so forth. We assume answers to these questions in every other study we partake in. For instance, science presupposes the legitimacy of inductive reasoning, the law of non-contradiction, the justification of using inference to the best explanation, the uniformity of nature, the reliability of perception, the nature and possibility of a posteriori knowledge and others. These courses will deal with the questions we presuppose answers to in discussing those things that matter to us. In the end, PHIL 205 courses will give philosophy instructors and students the opportunity to explore areas of philosophy which are of interest not only to the psychologist, historian, and novelist, but also to those who wish to pursue a career in philosophy or become competent in philosophical problems. As Socrates said, "the unexamined life is not worth living." These courses will help encourage others to avoid the unexamined life. (Prerequisite: Any 100 level PHIL course or instructor permission) (MNTC 6: Humanities and Fine Arts)

Goal Area 7 - Human Diversity

The following courses apply to MNTC Goal 7. To complete the goal, students must complete one course.

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

AIS130 Indigenous Cuisine and Culture (3 Credits) - In this course, students will explore the many facets of American indigenous cuisine. This will include historical concepts that impact indigenous food resources such as the forced removal of many tribes from their original landscapes, to government food rationing on reservations as well as within the boarding school system. The course will explore traditional and current indigenous practices of environmental sustainability. Lastly, students will gain an understanding of food sovereignty, both its meaning and its ties to a political/cultural movement. Students will also have the opportunity to prepare and partake in some indigenous cuisine. (MNTC Goal Areas: Goal Area 7 - Human Diversity and Goal Area 9 - Ethical and Civic Responsibility)

ASL101 American Sign Language 1 (3 Credits) - This course teaches the basics of American Sign Language. (Prerequisites: None) (MNTC 7: Human Diversity)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL120 Human Diversity in Literature and Film (4 Credits) - This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

HIST120 U.S. History I (4 Credits) - This course surveys the history of America from the contributions of the indigenous Indian people through the Colonial Era (17th and 18th centuries) to the American Revolution and Early Republic (18th and 19th centuries). It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History & Social & Behavioral Sciences, Human Diversity)

HIST121 U. S. History II (4 Credits) - This course surveys the history of America from the Civil War and Reconstruction, through the New South and the New West, Industrialization, Populism and Progressivism, World War I, the Great Depression and the New Deal, World War II, Cold War America, the 1960's, Vietnam and Beyond. It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC250 Industrial Organizational Psychology (4 Credits) - Industrial-organizational (I/O) psychology is the scientific study of the workplace. Students will be introduced to a variety of issues of relevance to business and industry, including selection and placement of employees, the importance of training and development, organizational development and evaluation, employee motivation and productivity, and the importance of fostering work-life balance. Diversity among organizations and cultures in how they approach these issues will be emphasized. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

SOC201 Marriage and Family (3 Credits) - The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

Goal Area 8 - Global Perspective

The following courses apply to MNTC Goal 8. To complete the goal, students must complete one course.

ART201 Art History I (3 Credits) - This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 Art History II (3 Credits) - This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL130 World Literature and Film (4 Credits) - This course introduces students to works of literature and film from a variety of world cultures. The course is designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation and in seeing, believing, and being. The course emphasizes critical thinking, reading, and writing. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GST100 Introduction to Global Studies (3 Credits) - This interdisciplinary course develops a basic understanding of the history of globalization, its most pressing current issues, and its advantages and disadvantages. Students will examine the growing interdependence of nations and the migration of peoples and the key issues of power and inequality that affect these relationships. Students will develop cross-cultural understanding and global and regional perspectives through interactive talks and activities involving a variety of topics related to the tension between global homogenization and hegemony vs. global diversity and equality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090, READ

0095 or EAP 0090 with a grade of C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas: 5 and 8).

HIST160 World History I (4 Credits) - This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 World History II: The Rise of the West (4 Credits) - The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST205 Special Topics in History: (1 - 4 Credits) - Any HIST class has been specially designed by an SCC History instructor to appeal to SCC students. The instructor has chosen the subject material related to his/her interests, students' interests, or his/her teaching expertise. (Prerequisites: Any HIST course or instructor permission) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

HUM130 China: Cultural Tradition and Change (3 Credits) - Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective).

HUM150 Global Connections Travel Seminar (1 Credit) - The Global Connections Seminar is a one-credit course which prepares students for traveling with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

HUM250 Global Connections Travel Seminar II (1 - 3 Credits) - The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 Global Philosophies (3 Credits) - This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOLA100 Somali Language I (4 Credits) - This course provides an introduction to Somali language and culture. Communication skills include: speaking, listening, reading & writing. Sensitivity to cultural differences is emphasized. Simple texts dealing with cultural topics are

used to develop skill in speaking. The four skills - speaking, comprehending, reading, and writing - are developed simultaneously. This course is designed for students with very little or no previous experience with the Somali language. (Prerequisite: None) (MnTC Goal 8 Global Perspectives)

SOLA102 Somali Language II (4 Credits) - This course is a continuation of SOLA 100 with increased emphasis of Somali culture and language skills including speaking, listening, reading articles and elementary creative writing, as well as awareness of sensitivity to cultural. This course is interactive and taught in Somali. This course use text books and modern media including audio, video recordings, information printed on websites and news in Somali from across world. (Prerequisite: SOLA 100 or instructor permission) (MNTC 8: Global Perspective)

SPAN105 Elementary Spanish I (4 Credits) - Students will be introduced to Spanish as a foreign language. The primary goal of the course is to acquire communicative competence in Spanish in regards to listening, speaking, reading, and writing. Language learning is a gradual process, in which one skill leads to the next, building the basis for more advanced skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 8: Global Perspective)

Goal Area 9 - Ethical and Civic Responsibility

The following courses apply to MNTC Goal 9. To complete the goal, students must complete one course.

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

AIS130 Indigenous Cuisine and Culture (3 Credits) - In this course, students will explore the many facets of American indigenous cuisine. This will include historical concepts that impact indigenous food resources such as the forced removal of many tribes from their original landscapes, to government food rationing on reservations as well as within the boarding school system. The course will explore traditional and current indigenous practices of environmental sustainability. Lastly, students will gain an understanding of food sovereignty, both its meaning and its ties to a political/cultural movement. Students will also have the opportunity to prepare and partake in some indigenous cuisine. (MnTC Goal Areas: Goal Area 7 - Human Diversity and Goal Area 9 - Ethical and Civic Responsibility)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

ENGL115 Global Peace and Social Justice (4 Credits) - Using works of literature such as War is a Force that Gives us Meaning and The Things They Carried, this course provides an introduction to the nature, scope, and methodology of peace studies with a view toward the future. It explores the concept of peace, non-violent movements, and the resolution of conflict between individuals, groups, societies, and nations. It considers the relationships between social justice and economics, human psychology, governmental power, and religion as forces for war as well as forces for peace. (MNTC 9: ETHICAL AND CIVIC RESPONSIBILITY) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PHIL220 Cyber Ethics (4 Credits) - This course introduces students to basic ethical theories and concepts and applies them to emerging issues in technology. It includes consideration of the ethical obligations of workers in technology industries along with controversies regarding social media, privacy, censorship, automation, and online discrimination. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC Goal Areas: 2 and 9).

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs;

perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

Goal Area 10 - People and the Environment

The following courses apply to MNTC Goal 10. To complete the goal, students must complete one course.

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

BIOL215 General Ecology (4 Credits) - This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

HHP101 Health and the Environment (3 Credits) - This course will examine the impact of complex environmental challenges on human health. This course focuses on the ecological model of health and wellness, a framework that addresses the interrelationships between individuals and their environment, and how these relationships influence the choices that affect health. The course will address the impact of the environment on human risk for common health concerns, to include cancer, heart disease, mental health, infectious disease, and nutrition/fitness. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 10: People and the Environment)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

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Global Studies - Certificate

16 Credits CERT3528/CERT2522, Academic Catalog 2024-2025

The Global Studies Certificate is an inter-disciplinary program of study which consists of two required classes and four electives. The Introduction to Global Studies course introduces students to basic concepts along with various trends, perspectives, competencies, and interconnections of a global society. Students will deepen their understanding of global issues by taking two classes in the "Art, Languages and Humanities" category and two classes in the "History, Social Sciences and Areas Studies" category. They will complete the certificate by taking a Capstone class, which synthesizes coursework from their elective courses as well as other intercultural experiences students have had. As part of the Capstone, students will engage in experiential activities and will complete a project that articulates their understanding of global issues and their role as a global citizen.

The total number of credits depends on which classes students choose to take, ranging from a minimum of sixteen to a maximum of twenty. This certificate complements many South Central College programs, academic fields, and any career which benefits from a global/international perspective. It can also transfer to a four-year degree in a major or minor. Students wishing to transfer to a four-year degree program should consult with a counselor, advisor, or the program coordinator at SCC, as well as with the college you intend to transfer to. You may also choose to complete the Associate of Arts degree and include the Global Studies certificate credits in the elective area.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Courses (2 Courses)

Complete all of the following courses:

GST100 Introduction to Global Studies (3 Credits) - This interdisciplinary course develops a basic understanding of the history of globalization, its most pressing current issues, and its advantages and disadvantages. Students will examine the growing interdependence of nations and the migration of peoples and the key issues of power and inequality that affect these relationships. Students will develop cross-cultural understanding and global and regional perspectives through interactive talks and activities involving a variety of topics related to the tension between global homogenization and hegemony vs. global diversity and equality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090, READ 0095 or EAP 0090 with a grade of C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas: 5 and 8).

GST250 Global Studies Practicum (1 Credit) - The purpose of the Global Studies Practicum is to provide students earning a Global Studies Certificate an opportunity to synthesize, integrate, and apply competencies from their coursework to a meaningful experience. The course consists of 12 hours or more of hands-on, experiential learning and 4 hours or more of consultation and supervision from an SCC instructor. The Global Studies Practicum is required in order to receive the Global Studies Certificate and it is recommended you take this course in your final semesters at SCC. As part of the practicum, students will engage in experiential activities, will keep a written record of or otherwise document their experience, and will complete a project that demonstrates their understanding of global issues and their role as global citizens. The details of the project are to be decided between the student and the instructor. Experiences for which a student has or will already receive academic credit cannot be counted. Examples of appropriate projects include, but are not limited to: 1. Engaging in approved overseas educational travel or international volunteering or internship; 2. Hosting international visitors; 3. Participating in and helping to organize and carry out multicultural or international student activities, including student clubs and/or the Global Connections Conference; 4. Volunteering in local immigrant and refugee community organizations and support organizations; 5. Volunteering as a tutor in the EAP program or local ABE/ESL programs, or volunteering as a tutor in Spanish, ASL, or Somali courses at SCC. An additional site supervisor may be required. Each student must find an instructor who agrees to work with them to design their practicum and oversee their practicum on an independent study basis. The final project will be shared with the Global Education Committee. (Prerequisites: Completion of GST 100 with a grade of C (2.0) or above, or permission of instructor.) (MNTC Goals 8 & 9).

Art, Language, and the Humanities (2 Courses)

Choose two courses from the following list:

ART201 Art History I (3 Credits) - This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 Art History II (3 Credits) - This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ASL101 American Sign Language 1 (3 Credits) - This course teaches the basics of American Sign Language. (Prerequisites: None) (MNTC 7: Human Diversity)

ENGL115 Global Peace and Social Justice (4 Credits) - Using works of literature such as *War is a Force that Gives us Meaning* and *The Things They Carried*, this course provides an introduction to the nature, scope, and methodology of peace studies with a view toward the future. It explores the concept of peace, non-violent movements, and the resolution of conflict between individuals, groups, societies, and nations. It considers the relationships between social justice and economics, human psychology, governmental power, and religion as forces for war as well as forces for peace. (MNTC 9: ETHICAL AND CIVIC RESPONSIBILITY) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

ENGL120 Human Diversity in Literature and Film (4 Credits) - This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

HUM130 China: Cultural Tradition and Change (3 Credits) - Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective).

HUM250 Global Connections Travel Seminar II (1 - 3 Credits) - The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 Global Philosophies (3 Credits) - This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

SOLA100 Somali Language I (4 Credits) - This course provides an introduction to Somali language and culture. Communication skills include: speaking, listening, reading & writing. Sensitivity to cultural differences is emphasized. Simple texts dealing with cultural topics are used to develop skill in speaking. The four skills - speaking, comprehending, reading, and writing - are developed simultaneously. This course is designed for students with very little or no previous experience with the Somali language. (Prerequisite: None) (MnTC Goal 8 Global Perspectives)

SOLA102 Somali Language II (4 Credits) - This course is a continuation of SOLA 100 with increased emphasis of Somali culture and language skills including speaking, listening, reading articles and elementary creative writing, as well as awareness of sensitivity to cultural. This course is interactive and taught in Somali. This course use text books and modern media including audio, video recordings, information printed on websites and news in Somali from across world. (Prerequisite: SOLA 100 or instructor permission) (MNTC 8: Global Perspective)

SPAN105 Elementary Spanish I (4 Credits) - Students will be introduced to Spanish as a foreign language. The primary goal of the course is to acquire communicative competence in Spanish in regards to listening, speaking, reading, and writing. Language learning is a gradual process, in which one skill leads to the next, building the basis for more advanced skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 8: Global Perspective)

History, Social Sciences and Area Studies (2 Courses)

Choose two courses from the following list:

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP

0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

HIST160 World History I (4 Credits) - This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 World History II: The Rise of the West (4 Credits) - The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOC201 Marriage and Family (3 Credits) - The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

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Biology Transfer Pathway - Associate of Science

60 Credits AS3526, Academic Catalog 2024-2025

The Biology Transfer Pathway A.S. degree at South Central College provides learners with the first two years of a broad based education in Biology and its supporting sciences. As a Minnesota State Pathway program, it is specifically designed to prepare learners to transfer into the junior year of a Biology major at a four year college.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (12 Courses)

Complete the following courses:

BIOL115 General Biology I (4 Credits) - This course covers biological processes at the cellular and molecular level. It serves as an introduction to macromolecules and metabolism, cell biology, Mendelian genetics, and gene expression. This course involves a weekly three hour lab. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC Area 3)

BIOL116 General Biology II (4 Credits) - This course covers biology at the organismal, population and system level. It will emphasize organismal diversity, population and community ecology and ecosystems. Students will gain an understanding of how evolutionary advances have occurred among populations due to natural selection. This course involves a weekly three hour lab. (Prerequisites: Next-Generation Accuplacer score of 250 or above, or Classic Accuplacer Reading score of 78 or higher, or either ENGL 0090 or EAP 0095 or READ 0095 with a C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND a Next-Generation Accuplacer QAS score of 237 or higher or Classic Accuplacer College Level Math score of 50 or higher, or either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC area 3)

BIOL211 Genetics (4 Credits) - This is an introductory Genetics course which covers the study of biologically inherited traits. It will emphasize Medelian genetics as well as molecular genetics. Students will explore classical, population, and molecular genetics. Students will learn genetics through lecture, solving genetics problems, and demonstrating concepts from lecture through laboratory experimentation. (Prerequisites: BIOL 115. BIOL 116 is strongly recommended) (MNTC Goal Area 3)

BIOL250 Biology Capstone (2 Credits) - Biology Capstone is a course that is required before completion of an AS degree in Biology. It is a project based course in which students will demonstrate a culmination of the skills developed while at South Central College. The student enrolled in this course will complete a scientific research project and present the findings by writing a research paper and giving a poster presentation. In addition, students may be required to participate in all assessment activities as directed by the instructor and the Biology program. This course should be taken during the last semester before completion of an A.S. degree in Biology. (Prerequisite: Instructor permission)

BIOL215 General Ecology (4 Credits) - This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

OR

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material

targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MnTC Goal Area 1 - Communication)

CHEM120 Principles of Chemistry I (5 Credits) - This course introduces the student to the basic principles of chemistry including atomic and molecular structure, bonding, chemical reactions, solution chemistry, stoichiometry, thermochemistry, periodicity, and states of matter. Laboratory reinforces lecture concepts. (Prerequisites: Accuplacer College Level Math score of 103 or ACT Math score of 22 or MATH 120 or currently taking MATH 120 is needed)

CHEM121 Principles of Chemistry II (5 Credits) - Principles of Chemistry II is the second in a series of Chemistry courses designed for students who plan to major in a scientific or health related field. Topics include kinetics, chemical equilibria, acids and bases, buffers, precipitation reactions, thermodynamics, and electrochemistry. Lab topics reinforce lecture concepts. (Prerequisite: CHEM 120) (MnTC 3: Natural Sciences)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MnTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MnTC: Goal areas 1 and 9).

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MnTC 4: Mathematical/Logical Reasoning)

OR

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MnTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Choose one of the following courses: (1 Course)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MnTC 3: Natural Sciences)

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Area 3)

MnTC (Minnesota Transfer Curriculum) Goal Areas to fulfill (3 Courses):

To reach the 60 credits needed for graduation (options for the MnTC goal areas below are included on the MnTC page):

Goal Area 5: Complete at least 1 course

Goal Area 6: Complete at least 1 course

Business Transfer Pathway - Associate of Science

60 Credits AS3299/AS2288, Academic Catalog 2024-2025

The purpose of a Minnesota State College and Universities (Minnesota State) transfer pathway is to identify the courses a student at a two-year college completes as part of an associate degree with a guarantee. Transfer Pathway associate degrees are accepted at any Minnesota State university that offers a designated bachelor's program with junior standing and may complete the bachelor's degree within an additional 60 credits.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (9 Courses)

Complete the following courses:

ACCT1800 Business Law (3 Credits) - This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 Financial Accounting (4 Credits) - This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 Managerial Accounting (4 Credits) - This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1834 Computerized Accounting I (3 Credits) - This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

MKT1800 Introduction to Sales (3 Credits) - This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1810 Principles of Marketing (3 Credits) - This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1820 Introduction to Business (3 Credits) - This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1900 Principles of Management (3 Credits) - This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 Entrepreneurship (3 Credits) - This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each student creating parts of a business plan. (Prerequisites: None)

Required Arts and Sciences (6 Courses)

To complete the Business Management AS Degree, students must complete 31 MNTC credits from 6 of the 10 MNTC Goal Areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading

score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Arts and Sciences Electives

Select an additional 10 credits to fulfill two other MNTC goal areas (MNTC Goals 2, 3, 6, 7, 8, 10) Options for the MNTC Goal areas are included on the [MNTC page](#).

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Communication Studies Transfer Pathway - Associate of Arts

60 Credits AA3555/AA2455, Academic Catalog 2024-2025

The Communication Studies Transfer Pathway AA offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Communication Studies bachelor's degree programs at Minnesota State universities.* The curriculum has been specifically designed so that students completing this pathway degree and transferring to one of the seven Minnesota State universities enter the university with junior-year status. All courses in the Transfer Pathway associate degree will directly transfer and apply to the designated bachelor's degree programs in a related field. *Universities within the Minnesota State system include Bemidji State University; Metropolitan State University; Minnesota State University, Mankato; Minnesota State University Moorhead; Southwest Minnesota State University; St. Cloud State University; and Winona State University.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (5 Courses)

Complete the following courses:

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

MnTC (Minnesota Transfer Curriculum) Goal Areas to fulfill (33-44 Credits):

Complete the following goal areas (options for the MNTC goal areas are included on the [MNTC page](#)):

Goal Area 1: Will be completed with required COMM and ENGL courses

Goal Area 2: Complete all 9 other MnTC goal areas OR select one course within goal 2

Goal Area 3: Select at least two courses from two different disciplines within goal 3: 6-8 Credits

Goal Area 4: Select one course from goal 4: 3-4 Credits

Goal Area 5: Select at least two courses from two different disciplines within goal 5: 6-8 Credits

Goal Area 6: Select at least two courses from two different disciplines within goal 6: 6-8 Credits

Goal Area 7: Select one course from goal 7: 3-4 Credits

Goal Area 8: Select one course from goal 8: 3-4 Credits

Goal Area 9: Select one course from goal 9: 3-4 Credits

Goal Area 10: Select one course from goal 10: 3-4 Credits

Additional Required Courses: (3 Courses)

Complete the following courses:

FYE100 First Year Experience (1 Credit) - First Year Experience is a course created to support students making the transition to college, to empower students to take control of their educational lives, and to help students be successful. The course will promote the development of critical thinking skills and positive educational values. Students will enhance their understanding of communication and learning styles, and lifestyle risks; learn to identify and use appropriate resources both on campus and within the community; acquire skills needed to promote study, personal wellness, goal setting and achievement; develop strategies to manage money, time and stress wisely; and in general develop the necessary skills to be a successful college student. (Prerequisite: None)

CAP250 Associate of Arts Capstone Class (1 Credit) - This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)

HHP Course Complete at least 1 credit in a health and human performance course (1 Credits)

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Early Childhood Education Transfer Pathway

60 Credits AS3527/AS2521, Academic Catalog 2024-2025

Early Childhood Education (ECE) Transfer Pathway associate degrees (AS) are accepted at any Minnesota State university that offers a designated early childhood bachelor's degree. The university guarantees that students transfer into the designated bachelor's program with junior status and may complete the bachelor's degree without losing credits or taking extra courses.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (30 Credits)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2510 ECE Internship - Instructor Permission Required (3 Credits) - This course provides students an opportunity to demonstrate the early-childhood-teaching competencies explored in other classes while guided by a teacher in a licensed early-childhood program. These competencies include: developing active and developmentally appropriate environments accessible to the multiple needs of learners, positive behavior guidance strategies, communication skills, and development of professional skills such as communication and respectful interactions with families, colleagues, and other potential partners in the care and education of young children in their care. (Prerequisite: Instructor approval)

ECE2560 Introduction to Language and Literacy (3 Credits) - This course is an introduction to children's language and literacy development from birth to age eight. Students will obtain skills in creating developmentally appropriate learning experiences that support both oral language and emerging literacy skills among children at all developmental levels. Students will be exposed to a wide range of instructional practices, approaches, methods, and curriculum materials to support children's language and literacy development. (Prerequisite: ECE 1210)

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The

students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

Required Arts and Sciences (30 Credits)

To complete the AS degree, students must complete 30 MnTC credits from 6 of the 10 MnTC goal areas. Courses should be taken with consultation from faculty or advisor. Options for the MNTC Goal areas below are included on the [MNTC page](#)

Required MnTC Goal Area 1 - Written Communication (1 Course): ENGL100 - Composition - is required

Required MnTC Goal Area 1 - Oral Communication (1 Course): Choose one COMM course. COMM 110 is recommended

Required MnTC Goal Area 3 - Natural Sciences Course with Lab (1 Course): Choose one course from MnTC Goal Area 3 (must include a lab). BIOL 100 is recommended.

Required MnTC Goal Area 4 - Mathematical/Logical Reasoning (1 Course): Choose one MATH course. MATH115 is recommended

Required MnTC Goal Area 5 - History and Social Sciences (2 Courses): Choose one MnTC Goal Area 5 course that begins with SOC and one that begins with PSYC

Required MnTC Goal Area 6 - Humanities and Fine Arts or MnTC Goal Area 8 - Global Perspective (1 Course): Choose one course from MNTC Goal Area 6 or 8

Required MnTC Goal Area 7 - Human Diversity (1 Course): Choose one course from MnTC Goal Area 7

Additional Arts and Sciences Courses (Total of 30 MnTC credits required for the degree): Select an additional 3 credits to fulfill the 60 credits required for graduation.

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Economics Transfer Pathway - Associate of Arts

60 Credits AA3591/AA2591, Academic Catalog 2024-2025

This program prepares the student for transfer at the junior level to economics majors at Minnesota state universities. It meets all requirement of the Economics Transfer Pathway designated by Minnesota State. Students will establish an introductory foundation in macroeconomics and microeconomics, as well as gain mathematical skills needed for more advanced study.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (5 Courses)

Complete the following courses:

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

MnTC (Minnesota Transfer Curriculum) Goal Areas to fulfill (27-35 Credits):

Complete the following courses:

Goal Area 1: Select one COMM course to fulfill Goal 1 (3 credits)

Goal Area 2: Complete all 9 other Goal areas OR select one course within Goal 2

Goal Area 3: Select at least two courses from two different disciplines within Goal 3 (6-8 credits)

Goal Area 4: Will be completed with required MATH courses

Goal Area 5: Select one course from a discipline other than ECON from [Goal 5 (3-4 credits)]

Goal Area 6: Select at least two courses from two different disciplines within Goal 6 (6-8 credits)

Goal Area 7: Select one course from Goal 7 (3-4 credits)

Goal Area 8: Select one course from Goal 8 (3-4 Credits)

Goal Area 9: Will be completed with required ECON courses

Goal Area 10: Select one course from Goal 10 (3-4 Credits)

Additional Required Courses: (2 Courses)

Complete the following courses:

FYE100 First Year Experience (1 Credit) - First Year Experience is a course created to support students making the transition to college, to empower students to take control of their educational lives, and to help students be successful. The course will promote the development of critical thinking skills and positive educational values. Students will enhance their understanding of communication and learning styles, and lifestyle risks; learn to identify and use appropriate resources both on campus and within the community; acquire skills needed to promote study, personal wellness, goal setting and achievement; develop strategies to manage money, time and stress wisely; and in general develop the necessary skills to be a successful college student. (Prerequisite: None)

CAP250 Associate of Arts Capstone Class (1 Credit) - This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)

Elective Credits

Choice of Arts and Sciences or approved technical electives to complete 60 credits (please work in consultation with your advisor)

Other Courses Recommended But Not Required

These courses may be taken at the University that you transfer to:

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH131 Calculus I (4 Credits) - This course introduces the key concepts of the derivative and the integral. Beginning with the definition of limit, the notion of continuity is developed which is perhaps the most important thread running throughout the calculus. This leads naturally to the process of differentiation and then integration, concluding with the all important Fundamental Theorem of the Calculus. Along the way, applications to classical and modern science, economics, the social sciences and other fields are explored. (Prerequisites: Next-Generation Accuplacer AAF score of 276 or higher or Classic Accuplacer College Math score of 103 or higher or ACT Math score of 24 or higher or completion of either MATH 125 or MATH 130 with a grade of C (2.0) or higher.) (MNTC 4: Mathematical/Logical Reasoning)

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Pre-Social Work Transfer Pathway - A.S.

60 Credits AS3520/AS2520, Academic Catalog 2024-2025

The 60-credit Associate of Science in Pre-Social Work degree is a pathway for students who intend to complete a 4-year social work degree and will be accepted at any Minnesota State University that offers a bachelor's degree in social work. The university guarantees that a student transfers into a designated bachelor's program with a junior standing and may complete the bachelor's degree with an additional 60 credits.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Please choose the following courses:

HSER1000 Introduction to Counseling (3 Credits) - This course provides students with an introduction to the skills of counseling. Students will learn how to identify and explore feelings, set up a positive environment, learn effective helping skills, and explore treatment issues. Emphasis will be placed on understanding the principles of interviewing and on the demonstrated application of these skills by the student. Students examine how these skills affect relationship building and therapeutic interventions. Guided encounters, discussions, presentations, and assigned projects will be utilized. (Prerequisites: None)

HSER1010 Disability and Person Centered Planning (4 Credits) - This course gives an overview of how service providers work with one another in order to assure the delivery of optimal supports. It will introduce you to a variety of strategies and techniques used to facilitate person centered planning for individualized and real life goals. Topics covered in the course include: the use of support teams (effective team work, team dynamics, communication skills and problem solving skills); working with families; direct service provider roles and responsibilities; diversity, confidentiality, and advocacy issues; the civil and disability rights movement; interdisciplinary team planning processes; and use of the Planning Alternate Tomorrows with Hope (PATH) planning system to promote minimally invasive care and support strategies. (Prerequisites: None)

HSER1020 Behavioral Interventions (3 Credits) - This course provides an in-depth look at positive supports and interventions for those with challenging behaviors, and reviews human development, learning styles, and teaching techniques. Additionally, analysis of a wide variety of multiple positive behavior strategies will be conducted. This course reviews the philosophy of behavior modification and theory, incident and accident reports, and documentation requirements. Emphasis is placed on understanding and supporting an individual's learning barriers by using positive approaches, as well as understanding and responding to behaviors with positive supports. Students will explore how their individual values and personal experiences influence the ways in which they respond to and assess individual's abilities. Students will also acquire knowledge and skills relating to functional and specialized assessments, the importance of using non-aversive interventions and the selection and use of appropriate non-aversive behavioral supports. Methods for designing, planning, developing, and implementing skill orientated support plans are taught in this course. (Prerequisites: None)

HSER1030 Poverty (3 Credits) - This course examines the causes and consequences of poverty. Students will learn the terminology and analyze the philosophical, conceptual, and theoretical frameworks utilized by diverse agents to understand and address poverty. Specific interventions are explored and analyzed. The goal of this course is to develop social work professionals who understand the problem of poverty from a variety of disciplines, understand key concepts, and will be prepared and willing to intervene regardless of area of practice. (Prerequisite: None)

HSER2000 Field Experience (4 Credits) - This course is designed to provide the student with a practical experience within the social services field. Each field experience is individualized and students will be placed within a social service agency by the instructor based on the student's interest, skill set, and agency availability. The focus of field experience is to give the students experience with a client population and practice modeling social work values and ethics. Students will complete field experience their last semester. (Prerequisites: Instructor approval required)

SOWK100 Introduction to Social Work (3 Credits) - This course provides students with an introduction to the profession of social work using a generalist model to practice in a diverse society. Students will learn about the history of the profession, values and ethics, roles and tasks, and theories required for social work practice along with various fields of practice. Students will experience group work learning to develop critical thinking skills and professional communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher, or READ 0095 or ENGL 100 with a grade of C (2.0) or higher OR completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher AND completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher.) (MnTC Goal Areas: None)

Required Arts and Sciences (10 Courses)

Please choose the following courses:

BIOL162 Human Biology (4 Credits) - This one-semester course is an introduction to the biology of the human body. Basic form and function of the body systems and their interactions will be emphasized. Other topics include: terminology, basic chemistry, cell biology genetics,

molecular biology and nutrition as it relates to the human body. This course contains a laboratory portion. (Minnesota Transfer Curriculum goal area 3) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

OR

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion,

social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

Additional Required Arts and Sciences (6 Credits)

Please choose 6 credits from MnTC Goal Area 6. Options for the MNTC goal areas are included on the [MNTC page](#)

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Psychology Transfer Pathway - Associate of Arts

60 Credits AA3190/AA2190, Academic Catalog 2024-2025

A psychology degree provides students with a solid understanding of how humans think and behave and is a firm foundation for a large number of potential career tracks such as counseling and therapy, social work, education, and research. The Minnesota State Psychology Transfer Pathway program allows students to take the first two years of a psychology degree at South Central College and then transfer to any Minnesota State university as a junior to complete the degree.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (12 Courses)

Complete the following courses:

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

CAP250 Associate of Arts Capstone Class (1 Credit) - This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

FYE100 First Year Experience (1 Credit) - First Year Experience is a course created to support students making the transition to college, to empower students to take control of their educational lives, and to help students be successful. The course will promote the development of critical thinking skills and positive educational values. Students will enhance their understanding of communication and learning styles, and lifestyle risks; learn to identify and use appropriate resources both on campus and within the community; acquire skills needed to promote study, personal wellness, goal setting and achievement; develop strategies to manage money, time and stress wisely; and in general develop the necessary skills to be a successful college student. (Prerequisite: None)

HHP101 Health and the Environment (3 Credits) - This course will examine the impact of complex environmental challenges on human health. This course focuses on the ecological model of health and wellness, a framework that addresses the interrelationships between individuals and their environment, and how these relationships influence the choices that affect health. The course will address the impact of the environment on human risk for common health concerns, to include cancer, heart disease, mental health, infectious disease, and nutrition/fitness. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 10: People and the Environment)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade

of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

MnTC (Minnesota Transfer Curriculum) Goal Areas to fulfill (21 Credits)

Options for the MNTC goal areas below are included on the MNTC page.

Choose 3 credits from MNTC Goal Area 3 other than BIOL

Choose 3 credits from MNTC Goal Area 5 other than PSYC or SOC

Choose 4 credits from MNTC Goal Area 6 other than PHIL

Choose an additional 8 credits of MNTC electives

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Dental Assisting - Associate of Applied Science Degree

62 Credits AAS3326, Academic Catalog 2024-2025

The Dental Assisting curriculum is designed to provide opportunities for the learner to develop a sound fundamental background for the practice of dental assisting. The specialized knowledge in the field of dental assisting prepares the learner and graduate to contribute to the world of dentistry for today's changing environment. This program identifies necessary competencies and integrates the curricula to support these outcomes to produce a dental assistant who is a vital member of the dental health team. The learner will become grounded and prepared to function as a Chairside and Expanded Functions clinician, a Business/Office Dental Assistant and a Laboratory Dental Assistant. Graduates of the program are capable of practicing in a general dental practice or in a dental specialty. Progression through the program is sequential. Due to the limited amount of space in the clinical area, learners will be admitted on space available basis. Successful completion of all courses in the dental assisting program require passing with a C/2.0 GPA or above.

The program is designed to meet the American Dental Association's Commission on Dental Accreditation Standard for Dental Assisting with the clinical skills and competencies as designated by the State Dental Practice Act of Minnesota State Board of Dentistry. A unique aspect of the South Central College's Dental Assisting program is its location on the Minnesota State University, Mankato campus in a newly refurbished 12-unit dental clinic, with restorative facilities, shared by MSU's Dental Hygiene program.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (17 Courses)

The following courses must be completed:

DA1813 Preclinical Dental Assisting (2 Credits) - Pre-Clinical Dental Assisting is designed to provide fundamental knowledge of microbiology and infection control measures. Emphasis will be placed on personal protection, risk management, sterilization, chemical disinfection, environment surface and equipment aseptic techniques. The student will develop the skills necessary to apply the techniques gained within the course to all clinical and laboratory courses. Standard precautions will be utilized throughout the entire curriculum, within all courses which apply. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; Co-requisite: DA 1814)

DA1814 Chairside Dental Assisting I (4 Credits) - Chairside Dental Assisting I provides laboratory and clinical knowledge and skills required for dental assisting clinical techniques and methods. Areas of emphasis are: clinical asepsis, safety, ergonomics, patient management and preparation, dental instruments and nomenclature, chairside assisting techniques, 4-6 handed dentistry, and treatment planning. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; DA 1820; Co-requisite: DA 1813)

DA1815 Dental Materials (3 Credits) - This course is designed to give students fundamental knowledge in dental materials, their purpose, composition, manipulation, properties, purposes, and storage as utilized in the dental practice and laboratory setting. The course includes both didactic and laboratory instruction for various material types including gypsum, impression materials, waxes, cements, and restorative materials. Safety in handling materials will be emphasized in laboratory. (Prerequisite: DA 1820)

DA1816 Radiology I (3 Credits) - Radiology I is designed to provide knowledge and skills in radiation history, intra-oral and extra-oral radiographic techniques, image principles and techniques, radiographic equipment and image receptors, radiographic infection control, radiation exposure guidelines, patient and operator protection/safety, patient relations, education, and legal issues, anatomical landmarks and pathology, radiographic film mounting and viewing, radiographic interpretation, and record keeping. (Prerequisites: DA 1820 and DA 1850)

DA1823 Dental Science II (2 Credits) - This course is designed to provide basic knowledge in oral pathology and pharmacology. Emphasis will be placed on methods of application, classifications and usage of knowledge in clinical settings. (Prerequisites: DA 1820)

DA1825 Dental Assisting Expanded Functions (5 Credits) - Dental Assisting Expanded Functions is designed to train chairside dental assistants in the Expanded Functions for an advanced level of skills and knowledge permitted to provide intra-oral patient care procedures beyond traditional dental assisting duties. Procedures emphasized will be those legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisites: DA 1814, 1815)

DA1826 Radiology II (3 Credits) - This course is a continuation of Radiology I. This in-depth course will cover the history of radiation, radiation physics, and differing radiation characteristics. The course will also include patient exposures, patient management and quality assurance. Students will also learn film techniques and processing. (Prerequisites: DA 1816)

DA1827 Dental Nutrition (1 Credit) - This course is designed to provide basic background knowledge in nutrition as it pertains to dental health and preventative dental philosophies. Emphasis will be placed on preventative dentistry and nutrition benefits of dental health. The focus of this course is to provide the student with the knowledge to define nutrition, describe key nutrients, use dietary guidelines, food labeling, food pyramids, define dental diets. Emphasis will be placed on dental health and nutritional guidelines. (Prerequisite: Admitted to Dental Assisting program)

DA1828 Nitrous Oxide Sedation (1 Credit) - Nitrous Oxide Sedation is designed to provide fundamental knowledge, elements, purposes, and uses of Nitrous Oxide sedation for the Dental Hygienist and Dental Assistant. (Prerequisites: DA 1814, HLTH 1950, HLTH 1952, CPR must be valid throughout the course.)

DA1845 Clinical Affiliations (8 Credits) - This course is designed to give the dental assistant student practical experience in dental practices. The extra-mural experiences will be completed in local dental offices including specialty areas as available. Clinical duties and expanded functions covering all aspects of the dental practice will be utilized. (Prerequisites: Successful completion of all previous dental assisting courses. Valid Healthcare Provider CPR)

DA1850 Dental Business Technologies (3 Credits) - The course is designed to introduce students to dental software and implement software skills in clinical courses. This course will also expose students to business management aspects including administrative, financial and records management. Basic computer skills are needed for successful completion of course (Prerequisites: Admission to the Dental Assisting program)

DA1855 Ethics and Jurisprudence (1 Credit) - This course will focus on the rules and regulations found in the Minnesota Dental Practice Act. An understanding of ethical and legal implications for dental practitioners will prepare students to take the Minnesota Jurisprudence exam for dental practitioners. (Prerequisites: DA 1825 and DA 1860)

DA1860 Expanded Functions II (4 Credits) - Expanded Functions II is designed to provide knowledge of general and specialty dentistry with associated chairside dental assisting laboratory and clinical skills. Emphasis will be placed on general and specialty dental procedures, including expanded dental procedures legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisite: DA 1814, DA 1815).

HLTH1950 CPR (1 Credit) - This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 17 MNTC credits from 3 of the 10 MNTC Goal Areas. Courses must be approved by advisor/faculty. The following courses are required:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

OR

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

Required MATH Course (1 Course)

Choose one course from the following list:

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The

emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH131 Calculus I (4 Credits) - This course introduces the key concepts of the derivative and the integral. Beginning with the definition of limit, the notion of continuity is developed which is perhaps the most important thread running throughout the calculus. This leads naturally to the process of differentiation and then integration, concluding with the all important Fundamental Theorem of the Calculus. Along the way, applications to classical and modern science, economics, the social sciences and other fields are explored. (Prerequisites: Next-Generation Accuplacer AAF score of 276 or higher or Classic Accuplacer College Math score of 103 or higher or ACT Math score of 24 or higher or completion of either MATH 125 or MATH 130 with a grade of C (2.0) or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH132 Calculus II (4 Credits) - In this continuation of Calculus I, you will begin by investigating more applications of the definite integral, along with useful techniques for evaluating them. This leads in a natural way to a brief introduction to differential equations, and the evaluation of improper integrals and indeterminate forms. Next, the calculus of the transcendental functions is explored in some detail. Then the study of sequences and series is taken up, including power series and Taylor series. Important geometrical concepts such as polar coordinates, parametric equations and vectors in the plane and in space are also covered. (Prerequisites: MATH 131, with a grade of C or better) (MNTC 4: Mathematical/Logical Reasoning)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Elective Arts and Sciences MnTC Goal 5 (3 Credits)

Select 3 credits from MnTC Goal 5: History and Social and Behavioral Sciences. Course should be chosen with Advisor approval.

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Dental Assisting - Diploma

51 Credits DIP3327, Academic Catalog 2024-2025

The Dental Assisting curriculum is designed to provide opportunities for the learner to develop a sound fundamental background for the practice of dental assisting. The specialized knowledge in the field of dental assisting prepares the learner and graduate to contribute to the world of dentistry for today's changing environment. This program identifies necessary competencies and integrates the curricula to support these outcomes to produce a dental assistant who is a vital member of the dental health team. The learner will become grounded and prepared to function as a Chairside and Expanded Functions clinician, a Business/Office Dental Assistant and a Laboratory Dental Assistant. Graduates of the program are capable of practicing in a general dental practice or in a dental specialty. Progression through the program is sequential. Due to the limited amount of space in the clinical area, learners will be admitted on space available basis. Successful completion of all courses in the dental assisting program require passing with a C/2.0 GPA or above.

The program is designed to meet the American Dental Association's Commission on Dental Accreditation Standard for Dental Assisting with the clinical skills and competencies as designated by the State Dental Practice Act of Minnesota State Board of Dentistry. A unique aspect of the South Central College's Dental Assisting program is its location on the Minnesota State University, Mankato campus in a newly refurbished 12-unit dental clinic, with restorative facilities, shared by MSU's Dental Hygiene program.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Complete all of the following courses:

DA1813 Preclinical Dental Assisting (2 Credits) - Pre-Clinical Dental Assisting is designed to provide fundamental knowledge of microbiology and infection control measures. Emphasis will be placed on personal protection, risk management, sterilization, chemical disinfection, environment surface and equipment aseptic techniques. The student will develop the skills necessary to apply the techniques gained within the course to all clinical and laboratory courses. Standard precautions will be utilized throughout the entire curriculum, within all courses which apply. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; Co-requisite: DA 1814)

DA1814 Chairside Dental Assisting I (4 Credits) - Chairside Dental Assisting I provides laboratory and clinical knowledge and skills required for dental assisting clinical techniques and methods. Areas of emphasis are: clinical asepsis, safety, ergonomics, patient management and preparation, dental instruments and nomenclature, chairside assisting techniques, 4-6 handed dentistry, and treatment planning. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; DA 1820; Co-requisite: DA 1813)

DA1815 Dental Materials (3 Credits) - This course is designed to give students fundamental knowledge in dental materials, their purpose, composition, manipulation, properties, purposes, and storage as utilized in the dental practice and laboratory setting. The course includes both didactic and laboratory instruction for various material types including gypsum, impression materials, waxes, cements, and restorative materials. Safety in handling materials will be emphasized in laboratory. (Prerequisite: DA 1820)

DA1816 Radiology I (3 Credits) - Radiology I is designed to provide knowledge and skills in radiation history, intra-oral and extra-oral radiographic techniques, image principles and techniques, radiographic equipment and image receptors, radiographic infection control, radiation exposure guidelines, patient and operator protection/safety, patient relations, education, and legal issues, anatomical landmarks and pathology, radiographic film mounting and viewing, radiographic interpretation, and record keeping. (Prerequisites: DA 1820 and DA 1850)

DA1820 Dental Science I (3 Credits) - Dental Science is designed to provide the student with the fundamental, anatomical, and physiological structures of the human body. All body systems will be covered including embryology and histology. The focus of the course is to help students with no prior preparation in science to have a fundamental understanding of the structure and function of the human body with emphasis on the head and neck. The student will develop the necessary background knowledge to be a successful chairside and clinical assistant. (Prerequisites: Admitted to Dental Assisting program; AND have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher, or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher AND completion of either ENGL 0090 or EAP 0095 or ENGL 100 with a grade of C (2.0) or higher.)

DA1823 Dental Science II (2 Credits) - This course is designed to provide basic knowledge in oral pathology and pharmacology. Emphasis will be placed on methods of application, classifications and usage of knowledge in clinical settings. (Prerequisites: DA 1820)

DA1825 Dental Assisting Expanded Functions (5 Credits) - Dental Assisting Expanded Functions is designed to train chairside dental assistants in the Expanded Functions for an advanced level of skills and knowledge permitted to provide intra-oral patient care procedures beyond traditional dental assisting duties. Procedures emphasized will be those legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisites: DA 1814, 1815)

DA1826 Radiology II (3 Credits) - This course is a continuation of Radiology I. This in-depth course will cover the history of radiation, radiation physics, and differing radiation characteristics. The course will also include patient exposures, patient management and quality assurance. Students will also learn film techniques and processing. (Prerequisites: DA 1816)

DA1827 Dental Nutrition (1 Credit) - This course is designed to provide basic background knowledge in nutrition as it pertains to dental health and preventative dental philosophies. Emphasis will be placed on preventative dentistry and nutrition benefits of dental health. The focus of this course is to provide the student with the knowledge to define nutrition, describe key nutrients, use dietary guidelines, food labeling, food pyramids, define dental diets. Emphasis will be placed on dental health and nutritional guidelines. (Prerequisite: Admitted to Dental Assisting program)

DA1828 Nitrous Oxide Sedation (1 Credit) - Nitrous Oxide Sedation is designed to provide fundamental knowledge, elements, purposes, and uses of Nitrous Oxide sedation for the Dental Hygienist and Dental Assistant. (Prerequisites: DA 1814, HLTH 1950, HLTH 1952, CPR must be valid throughout the course.)

DA1845 Clinical Affiliations (8 Credits) - This course is designed to give the dental assistant student practical experience in dental practices. The extra-mural experiences will be completed in local dental offices including specialty areas as available. Clinical duties and expanded functions covering all aspects of the dental practice will be utilized. (Prerequisites: Successful completion of all previous dental assisting courses. Valid Healthcare Provider CPR)

DA1850 Dental Business Technologies (3 Credits) - The course is designed to introduce students to dental software and implement software skills in clinical courses. This course will also expose students to business management aspects including administrative, financial and records management. Basic computer skills are needed for successful completion of course (Prerequisites: Admission to the Dental Assisting program)

DA1855 Ethics and Jurisprudence (1 Credit) - This course will focus on the rules and regulations found in the Minnesota Dental Practice Act. An understanding of ethical and legal implications for dental practitioners will prepare students to take the Minnesota Jurisprudence exam for dental practitioners. (Prerequisites: DA 1825 and DA 1860)

DA1860 Expanded Functions II (4 Credits) - Expanded Functions II is designed to provide knowledge of general and specialty dentistry with associated chairside dental assisting laboratory and clinical skills. Emphasis will be placed on general and specialty dental procedures, including expanded dental procedures legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisite: DA 1814, DA 1815).

HLTH1950 CPR (1 Credit) - This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

Required General Education (2 Courses)

Courses must be selected in consultation with advisor/faculty.

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

OR

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

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Emergency Medical Technician

7 Credits NA3802, Academic Catalog 2024-2025

Emergency Medical Technician is NOT a program leading to a degree at South Central College. Rather, SCC offers a series of courses that lead to certifications which prepare learners to render emergency medical services to the public.

These certifications are not eligible for federal student aid.

Basic Entrance Requirements

Students must be 18 years of age prior to the start of the initial Emergency Medical Technician (EMT) course. There is not an age requirement for the First Responder course.

Student Background Studies

Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a health care or child care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care or child care facility. Failure to participate in a clinical placement required by the program could result in ineligibility to qualify for completion of the course.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Classes (1 Course)

Complete all of the following courses:

HEMS1200 Emergency Medical Technician Initial (160 Hours) (7 Credits) - This course will provide the participant the necessary didactic and cognitive skills to enter the Basic Life Support Ambulance occupation arena as an EMT. Upon successful completion of this course the participant will be able to take the National registry of Emergency Medical Technician written and practical examination, administered by the Minnesota EMS Regulatory Board. The course follows the guidelines established by the United States Department of Transportation and meets the requirements set forth by the Minnesota EMS Regulatory Board. This course is a requirement to progress into the Intensive Care Paramedic Program of study. (Prerequisite: Student must be 18 years of age by the start of the course.)

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Health Sciences Broad Field - Associate of Science

60 Credits AS3366/AS2366, Academic Catalog 2024-2025

This degree includes instruction in the basic sciences and aspects of the subject matter related to various health occupations.

The Health Science Broad Field program provides a general, introductory curriculum in health sciences that prepares individuals for transfer to a variety of baccalaureate degree programs. Applicable programs include:

Bemidji State University - Community Health BS, Exercise Science BS, Nursing BS

Metropolitan State University - Nursing BSN

Minnesota State University, Mankato - Communications Disorders BA/BS, Corrections BS, Dental Hygiene BS, Family Consumer Science Education BS (Emphases: Dietetics, Food and Nutrition), Food Science Technology BS, Nursing BS, Psychology BA/BS, Recreation Parks and Leisure Services BS (Emphasis: Therapeutic Recreation), Social Work BSSW

Minnesota State University, Moorhead - Exercise Science BS, Health Teacher Education BS

St. Cloud State University - Athletic Training BS, Community Health BS, Social Work BS

Southwest Minnesota State University - Exercise Science BS

Winona State University - Biology BS (Emphasis: Allied Health), Exercise and Rehabilitative Science BS (Emphases: Cardiopulmonary Rehabilitation, Exercise Science), Health Promotion BT, Health Promotion: Community Health BT, Nursing BS

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Courses (14 Courses)

Complete the following courses:

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or

higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

FCS105 Nutrition and Healthy Living (3 Credits) - This course provides an overview of basic principles of nutrition. Topics include contemporary issues such as food labeling, dieting practices, eating disorders, fitness, malnutrition, and nutrition throughout the life cycle. This course also focuses on the knowledge and skills necessary for the development and enhancement of a healthy lifestyle throughout the life span. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

Elective Credits (8 Credits)

Chosen based on selected baccalaureate degree program. Courses should be selected in consultation with advisor/faculty. You must complete enough elective credits (8) to total 60 credits in your program.

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Health Unit Coordinator - Certificate

16 Credits CERT3313/CERT2318, Academic Catalog 2024-2025

Our classes emphasize the importance of effective communication skills both in person and by phone with clients/patients, visitors, health care team members and ancillary departments. Courses have been developed based on industry standards and the learner is prepared to work in a variety of health care environments. Experienced instructors offer plenty of personal attention to each learner. This program will also help prepare you for the National Association of Health Unit Coordinators certification exam.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Complete all of the following courses:

HUCF1101 Introduction to Health Unit Coordinating (1 Credit) - This course includes the study of health care facility office and communication skills for nonclinical functions. Information about working with nursing and medical staff, other department staff, patients and visitors to contribute to the patients'/clients'/residents' care and well-being is explored. Telephone, written, electronic, and interpersonal communication is discussed, along with an emphasis in clerical support duties such as scheduling, faxing, and using various electronic devices. This course will help prepare students for the National Association of Health Unit Coordinators certification exam. (Prerequisites: None)

HUCF1201 Health Unit Coordinator Procedures (3 Credits) - This course expands on the role and job duties of the Health Unit Coordinator. Students will work with medical terminology and information necessary to comprehend and process a variety of orders within a health care setting. Examples of various kinds of orders are studied and many opportunities for practicing procedures is provided. Interaction with the patient chart and the Electronic Health Record continue to be explored, and multiple types of entries are practiced by students. Also, an overview of basic anatomy as well as disease and disorders will be covered to enhance understanding of orders and other elements of working in a health care setting. This course will focus on preparing students for certification through the National Association of Health Unit Coordinators. (Prerequisite: None)

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

HC1525 Health Care Core Foundations (1 - 4 Credits) - This variable credit course will focus on the requirements needed by healthcare professionals to effectively work in a variety of healthcare settings and explore workplace skills such as accountability and responsibility, workplace behavior, approaches to assist clients, and expectations of teams and team members. This course provides a framework for healthcare workers to interact with diverse clients and staff, including belief systems, cultural practices, and respect and sensitivity to cultural, gender, and age issues. Identifying elements of communication and how those elements can develop into effective communication within the healthcare setting is a key focus, as well as learning when and how to utilize those skills in challenging situations. Health care ethics will be addressed and target ethical decision-making and personal and professional values. Legal issues in healthcare will round out the course, concentrating on healthcare laws and social media in healthcare. Healthcare safety and standards precautions will be incorporated, as well as personal wellness for the healthcare professional. This variable credit course was designed as a part of the Minnesota Health Care Core Curriculum. (Prerequisites: None)

HC1550 Electronic Health Records (2 Credits) - With the implementation of the electronic health record in today's healthcare environment, it's essential for students entering the healthcare field to understand this technology and how it relates to work in the industry. This course is designed as an introduction to the history of Electronic Health Records (EHRs) and concepts behind the structure of electronic medical recording systems. Additionally, it will provide students the opportunity to use multiple functions of an educational electronic health record. (Prerequisites: None)

MA1020 Medical Office Procedures (3 Credits) - This course will review administrative duties that are performed by a medical assistant. Emphasis will be on clerical functions, bookkeeping procedures, insurance claims, professional communications, medical coding, legal concepts, medical office operational functions including written and electronic. (Prerequisite: Acceptance into one of the following programs: Medical Assisting, Health Unit Coordinator, or Administrative Office Specialist - Medical)

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Medical Assistant - Associate of Applied Science Degree

60 Credits AAS3364, Academic Catalog 2024-2025

The Medical Assisting program will prepare you to perform a wide variety of clinical duties, including rooming patients, obtaining vital signs, assisting with patient procedures, and performing laboratory testing and x-rays within the clinical setting. Students may have the opportunity to perform administrative duties which could include maintaining medical records, coding and billing medical insurance, scheduling appointments, arranging admissions, and managing the medical office. As a Medical Assistant, students will be classified as allied health practitioners working in any of a number of different ambulatory care facilities.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (13 Courses)

Complete the following courses:

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

HC1914 Anatomy & Physiology/Disease Conditions I (4 Credits) - This course is designed to provide two approaches to assist the student in learning about the human body. The first is in developing a basic understanding of the normal structure and function of the human body and secondly to discuss disease processes that affect each body system. (Prerequisite: HC 1000)

HC1924 Anatomy & Physiology Disease Conditions II (4 Credits) - This course is a continuation of HC 1914 Anatomy/Physiology/Disease Conditions I with emphasis on the pathophysiology of the human body. The student will apply previous knowledge in medical terminology and structure and function of the human body. This course prepares the student in understanding the abnormalities and diseases that affect the organs and organ systems. (Prerequisites: HC 1914, 1000)

HC1550 Electronic Health Records (2 Credits) - With the implementation of the electronic health record in today's healthcare environment, it's essential for students entering the healthcare field to understand this technology and how it relates to work in the industry. This course is designed as an introduction to the history of Electronic Health Records (EHRs) and concepts behind the structure of electronic medical recording systems. Additionally, it will provide students the opportunity to use multiple functions of an educational electronic health record. (Prerequisites: None)

HC2025 Culturally Competent Care (3 Credits) - Intended for students pursuing healthcare careers, this course explores the cross-cultural interactions of healthcare professionals and patients of various cultural, racial, ethnic, socioeconomic, and otherwise diverse populations, helping students to understand the importance of the cultural dimensions of the communities in which they live and work. This course prepares students to apply cultural competency to their practice in healthcare professions.

FCS105 Nutrition and Healthy Living (3 Credits) - This course provides an overview of basic principles of nutrition. Topics include contemporary issues such as food labeling, dieting practices, eating disorders, fitness, malnutrition, and nutrition throughout the life cycle. This course also focuses on the knowledge and skills necessary for the development and enhancement of a healthy lifestyle throughout the life span. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

MA1020 Medical Office Procedures (3 Credits) - This course will review administrative duties that are performed by a medical assistant. Emphasis will be on clerical functions, bookkeeping procedures, insurance claims, professional communications, medical coding, legal concepts, medical office operational functions including written and electronic. (Prerequisite: Acceptance into one of the following programs: Medical Assisting, Health Unit Coordinator, or Administrative Office Specialist - Medical)

MA2000 Pharmacology for Medical Assistants (3 Credits) - In this course, students will learn topics essential for the Medical Assistant to thoroughly understand drug sources, herbs, and supplements, legislation relating to drugs, drug references, and drug classifications. Students will also gain knowledge in basic principles for administering different types of medications and the universal precautions and standards related to the role of a Medical Assistant. Prerequisites HC 1000 and HC 1914 and MA 2010.

MA2010 Laboratory Skills for Medical Assistants (3 Credits) - This course is designed to teach laboratory fundamentals of medical assisting in a clinical office setting. Students will learn aspects of standard precautions, laboratory safety, venipuncture, collection of patient

specimens, perform CLIA waived laboratory testing along with identification of infectious agents. (Prerequisites: None)

MA2015 Clinical Skills I (3 Credits) - This course introduces skills utilized in a clinical setting for Medical Assistants. Using primary care as the framework students will apply their critical thinking skills and skills for assisting with health exams, obtaining vital signs, assisting with procedures and treatments within the ambulatory care setting. Infection control techniques will be studied and used in the clinical setting. The student will discuss the MA role in emergency preparedness and use first aid procedures. (Corequisites: MA 2010)

MA2020 Clinical Skills II (3 Credits) - This course builds on the skills obtained in Clinical Skills I for Medical Assistants. Using medical specialties as the framework students will utilize their critical thinking skills to learn specific health testing, procedures and treatments in medical specialty departments within the ambulatory care setting (Prerequisites: MA 2015)

MA2040 Medical Assistant Internship (5 Credits) - Students will engage in a non paid medical assisting internship within an ambulatory health care setting. In actual work situations, students will perform administrative and clinical competencies. Administrative competencies may include and are not limited to, clerical functions, performing bookkeeping tasks and scheduling appointments. Clinical competencies may include and are not limited to, specimen collection, diagnostic testing and patient care. Students will participate in mandatory campus meetings where the student will learn job search and interview techniques along with participation in test preparation for their National Certification Exam. (Prerequisites: MA 2000, 2020)

Health Care Core Foundations (3 Credits)

Complete 3 credits of HC 1525

HC1525 Health Care Core Foundations (1 - 4 Credits) - This variable credit course will focus on the requirements needed by healthcare professionals to effectively work in a variety of healthcare settings and explore workplace skills such as accountability and responsibility, workplace behavior, approaches to assist clients, and expectations of teams and team members. This course provides a framework for healthcare workers to interact with diverse clients and staff, including belief systems, cultural practices, and respect and sensitivity to cultural, gender, and age issues. Identifying elements of communication and how those elements can develop into effective communication within the healthcare setting is a key focus, as well as learning when and how to utilize those skills in challenging situations. Health care ethics will be addressed and target ethical decision-making and personal and professional values. Legal issues in healthcare will round out the course, concentrating on healthcare laws and social media in healthcare. Healthcare safety and standards precautions will be incorporated, as well as personal wellness for the healthcare professional. This variable credit course was designed as a part of the Minnesota Health Care Core Curriculum. (Prerequisites: None)

Required Arts and Sciences (5 Courses)

To complete an AAS degree, students must complete 16 MNTC credits from 3 of the 10 MNTC goal areas. The following required courses:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

OR

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

HUM100 Critical Thinking (3 Credits) - This course introduces students to the importance of critical thinking in our culture today. Students will be provided with methods of critical thinking as well as relevant topics on which to practice their skills. (Prerequisites: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0080 and READ 0090 or READ 0095 with a grade of C or higher) (MNTC 2: Critical Thinking)

OR

CRTK100 Critical Thinking (3 Credits) - This course helps students acquire and develop critical thinking skills. Focused on the practical application of the principles of good reasoning, it encourages them to cultivate cognitive virtues such as consistency, self-awareness, open-mindedness, fairness, and intellectual humility. Students will be taught how to: recognize (and make) good arguments, identify (and avoid) logical fallacies and cognitive biases, articulate ideas in a clear and precise way, understand the significance and limits of the scientific method, and critically evaluate sources in the media. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: 2 Critical Thinking)

OR

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

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Medical Laboratory Technician - Associate of Applied Science Degree

65 Credits AAS3309, Academic Catalog 2024-2025

The Medical Laboratory Technician curriculum includes a combination of general education and support courses, online lectures, face-to-face student laboratory sessions, and placement of students in a hospital or clinic internship experience. The program is considered a "hybrid" program because there are required face-to-face student laboratory sessions in which a student must physically be present on one of SCC's two campuses in order to fulfill the requirements of the student laboratory sessions. Lab work is conducted under the supervision of a certified Clinical Laboratory Scientist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the clinical laboratory gaining experience and practice in basic clinical laboratory techniques, procedures, and phlebotomy.

Admission Process

Application to the Medical Laboratory Technician program requires a separate application process from admission to the college. Applications for the program are typically due on April 1st for a Fall Semester start. To obtain an application, please visit the MLT program website. Applicants must have completed or be in the process of completing the following sequence of courses with a grade of "C" or higher:

HC 1000 Medical Terminology (3 credit)
 CHEM108 Introduction to Chemistry (4 credits)
 MDLT1810 Laboratory Techniques and Orientation (3 credits)
 BIOL162 Human Biology (4 credits)

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (19 Courses)

You must complete the following required courses:

MDLT1810 Laboratory Techniques and Orientation (3 Credits) - This course is an orientation course that familiarizes the student with a career in the medical laboratory field. It covers basic skills in clinical laboratory techniques and provides the student with practice. Topics include: MLT/Phlebotomy program policies; certification; working with various pieces of equipment; safety; infection control; quality control; specimen collection/handling/processing; good laboratory technique and maintaining efficiency and accuracy. The practice of phlebotomy is heavily emphasized in this course. Students will continue to enhance their phlebotomy skills in other technical courses, where blood samples are needed, and also during the clinical internship. (Prerequisites: None)

MDLT1815 Hematology I (3 Credits) - This course covers basic hematology procedures involving such tests as red cell counts, white cell counts, platelet counts, hemoglobin determination, hematocrits, sedimentation rates and reticulocyte counts. Also covered are the abnormalities of these elements which cause diseases, and bone marrow procedures. (Prerequisite: MDLT 1810 may also be taken concurrently or with Program Director permission)

MDLT1820 Coagulation (2 Credits) - This course covers the basic principles of the hemostasis, the clotting system of the body. The course of study includes the coagulation factors and their cascade sequence, vascular and platelet components, fibrinolysis, thrombosis, anticoagulant therapy and quality control. Abnormalities of the coagulation system will also be covered. (Prerequisite: MDLT 1810, & MDLT 1815 with a grade of C or higher.)

MDLT1825 Urinalysis/Body Fluids (3 Credits) - The lecture component of this course will cover basic theory in urine formation, renal physiology, and metabolic disorders that produce abnormalities in the urine. Complete urinalysis examinations will be performed in the student laboratory. Basic analysis of other body fluids will be discussed with an emphasis on laboratory methods currently in use. (Prerequisite: MDLT 1810 & MDLT 2818 with a grade of C or higher.)

MDLT1830 Hematology II (3 Credits) - This course is a continuation of MDLT 1815 Hematology I. It includes the study of anemias and leukemias, and the correlation of these disease processes. Instruction includes lecture and laboratory case studies, and the use of automated hematology analyzers. (Prerequisite: MDLT 1810 & MDLT 1815 with a grade of C or higher.)

MDLT1835 Immunology (2 Credits) - This course is a basic overview of the immune system. Laboratory instruction is designed to instruct the students in basic immunology testing methods for the correlation of immunologic disorders. (Prerequisite: MDLT 1810 & MDLT 2818 with a grade of C or higher.)

MDLT2806 Immunohematology I (2 Credits) - This course covers the introduction to both the theory and practical aspects of Immunohematology. Areas of study include red blood cell antigens and antibodies, blood typing, antibody screening, antibody identification, compatibility testing, and quality control in the blood bank. The course is designed to prepare the student for practical training in Immunohematology. (Prerequisite: MDLT 1810, & MDLT 1815 with a grade of C or higher.)

MDLT2807 Immunohematology II (2 Credits) - This course is a continuation of MDLT 2806 Immunohematology I. The student will receive further basic training and practical instruction on both the theory and practical aspects of immunohematology. Areas of study include pretransfusion testing, transfusion therapy, adverse transfusion reactions, hemolytic disease of the newborn, hemolytic anemias, human leukocyte antigens, donor selection, and component processing. The course is designed to prepare the student for practical training in immunohematology. (Prerequisite: MDLT 1810 and MDLT 2806 with a grade of C.)

MDLT2811 Microbiology I (3 Credits) - This course covers the isolation and identification of clinically significant microorganisms. Emphasis is placed on specimen sources, growth characteristics, techniques for identification, and quality control. (Prerequisite: MDLT 1810 may be taken concurrently or with Program Director permission)

MDLT2817 Chemistry I (4 Credits) - This course covers the analysis of chemical constituents of plasma, serum, urine and other body fluids. Emphasis is placed on physiology, methodology and clinical significance of carbohydrate metabolism, non-protein nitrogen, renal and liver function, tumor markers and porphyrins. Accuracy in performance, quality control and laboratory safety is stressed. (Prerequisites: MDLT 1810 may also be taken concurrently or with Program Director permission)

MDLT2818 Chemistry II (3 Credits) - This course is a continuation of MDLT 2817 Chemistry I and includes the theory and clinical correlations of acid/base balance, liver function, cardiac function, gastrointestinal function, pancreatic function, endocrinology, therapeutic drug monitoring, toxicology, tumor markers, nutritional assessment, biochemical assessment during pregnancy, and point-of-care testing. The MLT student learns the theory and technique of each procedure, quality control, and normal values of chemical constituents analyzed. Concepts that are basic to the operation of automated laboratory instruments will be discussed. (Prerequisites: MDLT 1810 & MDLT 2817 with a grade of C or higher.)

MDLT2821 Microbiology II (3 Credits) - This course is a continuation of Microbiology I. The students will receive further basic practical instruction in the isolation and identification of clinically significant microorganisms. A short introduction to parasitology/mycology/virology/Mycobacterium species will also be included. (Prerequisite: MDLT 1810 and MDLT 2811 with a grade of C or higher.)

MDLT2825 Clinical Practice & Orientation (1 Credit) - This course covers an explanation of the hospital and clinic structure and the student's role in the clinical practice setting. The student will learn the basic knowledge necessary for effective understanding of his/her expectations and evaluations as an MLT student in the clinical practice training and his/her role as an employee after graduation. (Prerequisites: MDLT 1825, MDLT 1835, and MDLT 2807)

MDLT2826 Clinical: Hematology & Coagulation (2 Credits) - During the clinical hematology and coagulation experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2827 Clinical: Chemistry & Immunology (2 Credits) - During the clinical chemistry and immunology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2828 Clinical: Immunohematology (2 Credits) - During the clinical immunohematology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2829 Clinical: Microbiology (3 Credits) - During the clinical microbiology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807.)

MDLT2830 Clinical: Urinalysis/Body Fluids (1 Credit) - During the clinical urinalysis/body fluids experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2831 Clinical: Phlebotomy (1 Credit) - During the clinical phlebotomy experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

Required Arts and Sciences (4 Courses)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas. The following courses are required:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer

Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

OR

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

BIOL162 Human Biology (4 Credits) - This one-semester course is an introduction to the biology of the human body. Basic form and function of the body systems and their interactions will be emphasized. Other topics include: terminology, basic chemistry, cell biology genetics, molecular biology and nutrition as it relates to the human body. This course contains a laboratory portion. (Minnesota Transfer Curriculum goal area 3) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

OR

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

OR

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

Other Required Courses (2 Courses)

Applicant must have completed or be in the process of completing the following pre-major courses with a grade of "C" or higher.

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

Community Paramedic - Certificate

12 Credits CERT3325*, Academic Catalog 2024-2025

This program is no longer accepting applications

The Community Paramedic program responds to identified health needs in underserved communities, ultimately improving the quality of life and health of rural and remote citizens and visitors. The program seeks to prepare learners for roles that include the following: outreach, wellness, health screening assessments, health teaching, providing immunizations, wound care, recognition of mental health issues, and referral into the existing mental health care systems, and functioning as physician extenders in rural clinics and hospitals. Community Paramedic learners will also receive instruction in disease management, including a thorough understanding of monitoring diabetes, congestive heart failure and other high-cost diseases, and the methods and medications used to treat them.

NOTE: Students must be admitted to the Community Paramedic program by following a defined application process. Requirements for admittance include: current certification as an Emergency Medical Technician Paramedic (EMT-P) and a record of at least two years of full time service as an EMT-P or the part time equivalent.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Select the following courses:

CP2500 Roles Advocacy and Outreach (2 Credits) - This is an introduction to the role and function of the Community Paramedic (CP). The student will learn about the Community Paramedic's specific role and function as a member of the health care team and part of the community. The student will identify the components of the role, define it, and explain the "scope of practice" for the position of CP. Additionally, the student will learn about the role of the CP as an advocate for clients in the community. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2505 Community Assessment (2 Credits) - This course is designed to introduce the role of the Community Paramedic (CP) as a member of the health care team in community assessment. The student will map the community health care services, describe the demographics of the community and assess their impact on the health of the clients. Additionally, the student will gain understanding of community health services in order to give advice on health care needs in the community. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2510 Care and Prevention Development Strategies (3 Credits) - This course will introduce the responsibilities of the Community Paramedic (CP) for gathering appropriate patient/client information and maintaining accurate records, including documentation of encounters between the CP and the patient/client. The student will also learn about the CP's role in assessing health care needs and appraising health care conditions. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2520 Community Paramedic Clinical (5 Credits) - This course will provide the student with clinical training under the supervision of a medical director, physician, nurse practitioner, physician's assistant or public health provider. The student will recommend appropriate health and/or social care professionals for the patient, prioritize jobs, and provide both advice and care. The student's placement in the clinical is based on qualifications and past training and experience. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

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Intensive Care Paramedic Technician - Associate of Applied Science Degree

67 Credits AAS3311, Academic Catalog 2024-2025

As the most highly trained pre-hospital emergency care provider in the EMS field, the paramedic accepts the challenging responsibility for patient care. A willingness to accept this challenge and direct others to carry out treatment plans is the first step in becoming a paramedic. Paramedicine is a relatively young field with a wide range of employment opportunities, including ambulance services, fire departments, police departments, hospitals, helicopter services and educational institutions. The program is fully accredited by the The Commission on Accreditation of Allied Health Education Programs (CAAHEP, 25400 US Highway 19 North, Suite 158, Clearwater, FL 33763 P:727-210-2350 Fax:727-210-2354).

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete the following courses:

ICP1000 Introduction to Paramedicine (3 Credits) - The Paramedic has a variety of duties. This course demonstrates the difference between the various levels of the Emergency Medical Technician and the responsibilities that accompany each level of training. It also includes introductory topics that the individual must understand in order to function as a paramedic. Such topics include medical/legal issues, communications, stress, system structure, lifting mechanics, medical terminology, infection control, etc. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1005 Applied Anatomy and Physiology for EMS (3 Credits) - This course is designed as an introduction to body structure and function. An emphasis will be placed on body systems specifically related to paramedicine and how that knowledge can be applied to EMS care. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1010 EMS Skills (5 Credits) - EMS SKILLS focuses on the Basic Life Support skills that the EMT-P must master along with this introduction to advanced skills. These include: Patient assessment, airway control with adjuncts, IV therapy, suctioning, communication skills, AED's, intubation, medication administration, cardiac skills, and other invasive techniques. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1020 Pharmacology for EMS (3 Credits) - The intent of this course is to introduce the student to basic pharmacological concepts, principles of drug safety and basic drug categories. Legal aspects of drug administration, drug standards, and use of reference material will be included. Specialized medications utilized in ALS transports will also be discussed. This course will have a primary focus on specific drugs used by paramedics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1040 Cardiac Care in EMS (4 Credits) - The course will prepare the EMT-P to assess and manage those cardiac emergencies that result from coronary atherosclerosis, along with a number of conditions involving pathology of peripheral/central circulation. The interpretation of cardiac dysrhythmias receives much emphasis in this course. ACLS Provider certification may be included. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1050 Trauma Care (3 Credits) - This course deals with the many aspects of trauma, including kinematics, evaluation, management, packaging, and transport. Advanced ITLS certification may be obtained. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1060 Pathophysiology in EMS (5 Credits) - This course discusses a variety of topics and medical conditions that occur in the various body systems. Emphasis is placed on field management of medical emergencies. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2010 EMS Advanced Skills (5 Credits) - This course is designed to orient the student to the rescue environment. Emphasis is placed on the role and responsibilities of the paramedic during a rescue response, including essential skills needed to keep the paramedic and the patient safe. Topics include Mass Casualty Incidents (includes ICS & START disaster response), hazardous materials, basic rescue, water and ice rescue awareness, high level-low angle rescue, emergency driving, special rescue situations and auto extrication for the paramedic. Also included is an introduction to advanced intensive care paramedic skills. Additional clinical rotations will also be completed. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2030 Critical Care I (3 Credits) - This courses orients students to the emergency room, intensive care unit, cardiac intensive care, telemetry unit and critical care departments. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2040 Critical Care II (3 Credits) - Clinical areas may include: Psychiatric Unit, Obstetrics, Pediatrics and Geriatrics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2050 Field Internship I (3 Credits) - This internship involves experiences with an advanced life support system provided by a fire service, municipal, hospital or other. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2060 Field Internship II (3 Credits) - This internship involves experiences with and advanced life support system provided by a private service. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2070 Special Populations (5 Credits) - This course covers medical considerations in areas such as geriatrics, obstetrics, gynecology, neonates, pediatrics, behavior disorders, and patients with special needs. PALS certification may be obtained. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2080 Paramedic Refresher (3 Credits) - This course is a comprehensive review of the technical courses and designed to prepare the candidate to challenge the National Registry Exam. It also meets the requirements for the 48-hour refresher. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2090 Hazardous Materials (1 Credit) - This course is designed to meet the training standards designed in NFPA473 "Standards for Competencies of EMS Personnel Responding to Hazardous Materials Incidents". The class combines didactic training with audio-visual materials that will provide a review of pertinent "awareness" level information. To insure a safe EMS response to a hazardous materials situation at the Operations Level, additional information and practical laboratory time will be provided as necessary. (Prerequisite: Permission of the Instructor)

Required Arts and Sciences

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas.

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Intensive Care Paramedic Technician - Diploma

58 Credits DIP3310, Academic Catalog 2024-2025

As the most highly trained pre-hospital emergency care provider in the EMS field, the paramedic accepts the challenging responsibility for patient care. A willingness to accept this challenge and direct others to carry out treatment plans is the first step in becoming a paramedic. Paramedicine is a relatively young field with a wide range of employment opportunities, including ambulance services, fire departments, police departments, hospitals, helicopter services and educational institutions. The program is fully accredited by the The Commission on Accreditation of Allied Health Education Programs (CAAHEP, 25400 US Highway 19 North, Suite 158, Clearwater, FL 33763 P:727-210-2350 Fax:727-210-2354).

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete the following classes:

ICP1000 Introduction to Paramedicine (3 Credits) - The Paramedic has a variety of duties. This course demonstrates the difference between the various levels of the Emergency Medical Technician and the responsibilities that accompany each level of training. It also includes introductory topics that the individual must understand in order to function as a paramedic. Such topics include medical/legal issues, communications, stress, system structure, lifting mechanics, medical terminology, infection control, etc. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1005 Applied Anatomy and Physiology for EMS (3 Credits) - This course is designed as an introduction to body structure and function. An emphasis will be placed on body systems specifically related to paramedicine and how that knowledge can be applied to EMS care. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1010 EMS Skills (5 Credits) - EMS SKILLS focuses on the Basic Life Support skills that the EMT-P must master along with this introduction to advanced skills. These include: Patient assessment, airway control with adjuncts, IV therapy, suctioning, communication skills, AED's, intubation, medication administration, cardiac skills, and other invasive techniques. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1020 Pharmacology for EMS (3 Credits) - The intent of this course is to introduce the student to basic pharmacological concepts, principles of drug safety and basic drug categories. Legal aspects of drug administration, drug standards, and use of reference material will be included. Specialized medications utilized in ALS transports will also be discussed. This course will have a primary focus on specific drugs used by paramedics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1040 Cardiac Care in EMS (4 Credits) - The course will prepare the EMT-P to assess and manage those cardiac emergencies that result from coronary atherosclerosis, along with a number of conditions involving pathology of peripheral/central circulation. The interpretation of cardiac dysrhythmias receives much emphasis in this course. ACLS Provider certification may be included. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1050 Trauma Care (3 Credits) - This course deals with the many aspects of trauma, including kinematics, evaluation, management, packaging, and transport. Advanced ITLS certification may be obtained. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1060 Pathophysiology in EMS (5 Credits) - This course discusses a variety of topics and medical conditions that occur in the various body systems. Emphasis is placed on field management of medical emergencies. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2010 EMS Advanced Skills (5 Credits) - This course is designed to orient the student to the rescue environment. Emphasis is placed on the role and responsibilities of the paramedic during a rescue response, including essential skills needed to keep the paramedic and the patient safe. Topics include Mass Casualty Incidents (includes ICS & START disaster response), hazardous materials, basic rescue, water and ice rescue awareness, high level-low angle rescue, emergency driving, special rescue situations and auto extrication for the paramedic. Also included is an introduction to advanced intensive care paramedic skills. Additional clinical rotations will also be completed. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2030 Critical Care I (3 Credits) - This courses orients students to the emergency room, intensive care unit, cardiac intensive care, telemetry unit and critical care departments. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2040 Critical Care II (3 Credits) - Clinical areas may include: Psychiatric Unit, Obstetrics, Pediatrics and Geriatrics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2050 Field Internship I (3 Credits) - This internship involves experiences with an advanced life support system provided by a fire service, municipal, hospital or other. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2060 Field Internship II (3 Credits) - This internship involves experiences with and advanced life support system provided by a private service. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2070 Special Populations (5 Credits) - This course covers medical considerations in areas such as geriatrics, obstetrics, gynecology, neonates, pediatrics, behavior disorders, and patients with special needs. PALS certification may be obtained. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2080 Paramedic Refresher (3 Credits) - This course is a comprehensive review of the technical courses and designed to prepare the candidate to challenge the National Registry Exam. It also meets the requirements for the 48-hour refresher. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2090 Hazardous Materials (1 Credit) - This course is designed to meet the training standards designed in NFPA473 "Standards for Competencies of EMS Personnel Responding to Hazardous Materials Incidents". The class combines didactic training with audio-visual materials that will provide a review of pertinent "awareness" level information. To insure a safe EMS response to a hazardous materials situation at the Operations Level, additional information and practical laboratory time will be provided as necessary. (Prerequisite: Permission of the Instructor)

Required Arts and Sciences (6 Credits)

Complete 6 credits from any of the 10 MNTC Goal Areas.

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Phlebotomy - Certificate

16 Credits CERT2306, Academic Catalog 2024-2025

**** The phlebotomy program is not admitting new students until Spring semester of 2026 ****

The goals of the Phlebotomy program are to provide academic education for individuals to acquire the knowledge, skills, and attitudes necessary for becoming a specialist in obtaining blood specimens by venipuncture, arterial, and microtechniques, for the purpose of laboratory analysis. A phlebotomist must have knowledge of the healthcare system, the anatomy and physiology related to laboratory testing and phlebotomy, the collection and transport requirements for tests performed in all areas of the laboratory, documentation and patient records, and interpersonal skills needed to provide quality patient care.

Campus: Faribault

Program Start Semester: Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (4 Courses)

Complete the following courses:

PHLE1400 Intro to Phlebotomy (4 Credits) - This course provides an orientation that familiarizes the student with a career in the field of Phlebotomy. The course will include a basic overview of the structure and function of the human body, various legal and ethical issues that affect a healthcare professional and specific phlebotomy topics. These topics include: program policies, certification, safety, infection control, quality control, specimen collection/handling/processing, good laboratory technique and maintaining the standards of a Phlebotomist based on industry criteria. (Concurrently with PHLE1450 & PHLE 1500 or Program Director permission)

PHLE1450 Phlebotomy Skills (3 Credits) - This course teaches students phlebotomy skills which will be further enhanced during the clinical internship. This course also cross trains the phlebotomy student in several different skill areas within the laboratory. Instruction includes EKGs (electrocardiograms), CLIA'88 (Clinical Laboratory Improvement Amendment) waived procedures, and POCT (point-of-care-testing). (Concurrently with PHLE 1400 & PHLE 1500 or Program Director permission)

PHLE1500 Phlebotomy Internship (3 Credits) - This course constitutes the student's clinical rotation. It consists of 100 contact hours of supervised practice of phlebotomy at an affiliated hospital or clinic. Internship experiences are specifically planned and implemented through the coordinated efforts of the faculty and staff of South Central College and the internship site. (Prerequisite: Completion of PHLE 1400 and PHLE 1450 with a grade of C or higher.)

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

Required Arts and Sciences (1 Course)

Please complete the following course:

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

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Practical Nursing - Diploma

40 Credits DIP3304/DIP2302, Academic Catalog 2024-2025

The South Central College Practical Nursing (PN) Diploma of Occupational Proficiency is approved by Minnesota State Colleges and Universities and the Minnesota Board of Nursing.

South Central College's **Practical Nursing (PN)** program prepares the student for the future licensed practical nurse role. The LPN role is valuable in working within the health care team to promote safe, quality care to clients from diverse populations across the lifespan. Employment is with clinics, long-term care and assisted living, home care, treatment facilities, and hospital depending on your location.

A Practical Nursing Diploma of Occupational Proficiency can be earned in two semesters after the Pre-Nursing requirements are completed. Once accepted into the Practical Nursing program, you will be able to enroll in nursing (NURS) classes. Successful completion of the Practical Nursing program provides eligibility to take the NCLEX-PN exam enabling you to obtain the LPN credential for entry level practice.

*National Council Licensure Examination (NCLEX) is a nationwide examination for licensure in the U.S. and Canada

Admitted Practical Nursing candidates are required to participate in a background study.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

You must complete the following courses:

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

HLTH1952 First Aid (1 Credit) - This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

NURS1110 Foundation of Nursing (2 Credits) - This course introduces the student to the basic concepts in nursing. Students will discuss the role of the LPN as it relates to the nursing process and professionalism. Communication strategies will be applied for communication techniques, standardized communication, and documentation methods. Students will discuss cultural influences in health care. Legal and ethical aspects related to nursing will be discussed. Physical comfort, safety concerns, and nutrition are identified for health promotion using evidence-based practice concepts. Physical and psychological disorders are explained in the elderly population. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1150 Clinical Foundation (3 Credits) - This course provides an opportunity to integrate laboratory and actual clinical learning with supervised client care in a healthcare setting. Students utilize the nursing process to collect data, implement nursing interventions and administer medications, and begin the documentation process. Nursing care is individualized to meet each client's needs with consideration of the client's culture. Emphasis is placed on organization, critical thinking, therapeutic communication and a holistic approach to client care. Professional behavior is an expectation in this course. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1175 Nursing Interventions (3 Credits) - This course provides students the opportunity to learn nursing procedures in a simulated supervised lab setting. Basic comfort and safety devices will be demonstrated. Body systems are reviewed with an emphasis on the neurological, respiratory, gastrointestinal and genitourinary systems. Infection control theories and infection preventative measures will be described. Demonstration of interventions and use of devices related to asepsis, oxygenation, and elimination will be achieved. Introduction to common conditions associated with assessments and interventions will be explored. Concepts for care of the elderly will be applied. Critical thinking and medical terminology are threaded throughout the course. Students will be required to demonstrate skills learned in the laboratory setting. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1275 Medication Administration (1 Credit) - This course introduces the student to the six rights of medication administration. The course will include non-parenteral administration routes including: oral, topical, nasal, rectal, eye, and ear. The course will also address safe medication administration utilizing the parenteral routes including: topical, intradermal, subcutaneous, intramuscular, and intravascular. Medication dosage calculations competency is expected. Medical terminology and abbreviations are threaded throughout the course. Best practices related to medication administration for the practical nurse will be used. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1220 Pharmacology for Practical Nurses (2 Credits) - This course will address basic concepts of pharmacology and the effects on the body. The course focuses on drug classifications as they apply to all body systems. Understanding the therapeutic and adverse drug effects

and appropriate actions will be addressed. The student will describe federal regulations to guide practice. The role of the practical nurse for client medication administration will be discussed using credible resources. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1310 Application of Nursing (4 Credits) - This course introduces the student to disease processes of the body systems: integumentary, respiratory, gastrointestinal, genitourinary, endocrine, cardiovascular, hematological, lymphatic, immune, neurological, sensory, reproductive, and musculoskeletal. Students will recognize signs and symptoms, as well as identify diagnostic tests, medications, and nutrition in the study of body system diseases. The student will use the nursing process to select effective treatments and interventions specific to the altered body systems. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1350 Clinical Application (4 Credits) - Students will apply nursing theories for clients with a variety of health conditions and altered body systems. Application of knowledge includes client interaction across the lifespan in a variety of laboratory and actual health care settings. Nursing interventions are individualized to meet each client's needs with consideration of the client's culture. The nursing process is implemented with an emphasis on critical thinking. Organizational skills are developed with an opportunity to care for multiple clients. Students may have the opportunity to observe the role of the nurse in specialty areas. Students will demonstrate effective communication with other members of the health care team. Professional nursing behavior will be demonstrated. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1375 Laboratory Application (2 Credits) - This course facilitates preparation for the future role of a licensed practical nurse (LPN). Emphasis is placed on understanding concepts of organizational structure and managing care as it relates to the LPN role and practice. Students will demonstrate ability to function within a variety of simulated client situations across the lifespan. Information technology including evidence-based practice will be used to meet client needs. Time management, prioritization, and effective, professional communication will be used to manage client care, enhance teamwork, and provide accurate information as a member of the interdisciplinary team. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1410 Maternal Child Nursing (2 Credits) - The concepts of pregnancy, the fundamental principles of labor and delivery, and nursing care of the mother and newborn will be described and applied. The student is introduced to the fundamental concepts of growth and development. Common illnesses and disorders of the newborn and the child will be discussed. Throughout the course, maternal child nursing and pediatric care will include communication skills, specific medications, vaccinations, laboratory tests, assessments, nutrition, and cultural influences. Maternal child and pediatric quality care issues and current will be discussed. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1610 Psychosocial Nursing (2 Credits) - This course introduces students to concepts in mental health and mental illness. The impact of culture and value systems on mental health is identified. Treatments discussed include medication and behavior therapy, crisis intervention, and group therapy. Appropriate nursing interventions for clients exhibiting maladaptive behaviors will be discussed. Clinical experience is included to reinforce theoretical concepts and quality client care. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

Required Arts and Sciences (3 Courses)

Complete the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

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Professional Nursing LPN to RN Transition Plan for Associate of Science Degree

64 Credits AS3363, Academic Catalog 2024-2025

The South Central College Professional Nursing Associate of Science in Nursing Degree (ASN) is approved by Minnesota State Colleges and Universities and the Minnesota Board of Nursing.

An **Associate of Science in Nursing (ASN)** Degree will prepare a student for the future registered nurse role. The RN role is important to leading a team and overseeing safe, high-quality care for diverse clients and families across the lifespan. Employment is with clinics, long-term care and assisted living, home care, treatment facilities, and hospitals.

The ASN degree can be earned in four semesters after the Pre-Nursing requirements are completed. Once accepted into the Professional Nursing program, you will be able to enroll in nursing (NURS) classes. Successful completion of the Professional Nursing program provides eligibility to take the NCLEX-RN exam enabling you to obtain the RN credential for entry level practice.

If already an LPN and interested in becoming a registered nurse, the Associate of Science in Nursing (ASN) degree is an option for you. This is accomplished by applying to the **LPN to RN Transition Plan** which is part of the ASN program. The LPN to RN Transition Plan grants advanced standing of four (4) credits to the future LPN to RN student. In your first semester of the nursing program, completion of one course, NURS 2200 LPN to RN Transition Role is required. The course is four (4) credits and a combination of theory, lab, and clinical to "transition" LPN students to the RN role. Subsequent semesters are with the traditional, non-degree ASN students.

*National Council Licensure Examination (NCLEX) is a nationwide examination for licensure in the U.S. and Canada

It is recommended students take as many of the required Arts and Science courses as possible before beginning the Nursing program which is a full-time study.

Individuals earning an ASN Degree may transfer credits to a four-year institution to work towards a Bachelors of Nursing Degree. Learners will be required to take additional liberal arts and science courses, and should visit with whichever institution they wish to transfer to for further information.

Admitted Nursing candidates are required to participate in a background study.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (13 Courses)

Complete the following courses:

LPN to RN Transition Plan - Credit given for prior LPN coursework completed - 4 Credits

NURS2200 LPN to RN Role Transition (4 Credits) - This course is intended to assist students to transition from the role of the Licensed Practical Nurse to the Associate Degree Nurse. Learning opportunities will occur in lecture, laboratory, and clinical settings. Transitional topics include differences in the scope of practice between the licensed practical nurse and the registered nurse. The nursing process is used as a framework for critical thinking and problem solving. Current and future trends in healthcare will be explored. Legal and ethical issues as they relate to nursing are discussed. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2320 Semester 2 Med-Surg Basics (3 Credits) - This course will focus on the medical-surgical nursing basics for assessment and planning of the care for adult patient with common illnesses. The emphasis is on the following systems/conditions: cardiovascular, respiratory, endocrine, neurological, musculoskeletal, gastrointestinal, and renal. Case studies, discussions, group projects, software programs, and exams will be utilized in identifying the patient's response to illness. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2350 Semester 2 Clinical Practice (4 Credits) - Students apply theory related to alteration in body systems through observation, assessment and interaction with clients in laboratory and acute care settings. Nursing interventions are individualized to meet each client's needs with consideration of the client's culture. The Nursing Process is implemented with an emphasis on critical thinking. Organizational skills are developed with opportunities to care for multiple clients. Students will demonstrate effective communication with other members of the multidisciplinary health care team. Professional nursing behavior will be demonstrated. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2375 Semester 2 Skills Lab and Pharmacology (2 Credits) - Students will refine nursing skills including performing a health history, assessments, pharmacology, math competence, and advanced skills in the laboratory setting to enhance the acute care clinical experiences. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2420 Semester 3 Maternal-Child Health (2 Credits) - This course introduces the student to the specialty area of Maternal Child Health. It will explore the unique health care considerations of women, children and their families. Incorporating growth and development theories, culture, legal, and ethical implications, and family centered patient education. This course explores antepartum, intrapartum, postpartum, well-child care, and pediatric health issues and health promotion. The importance of family centered care is emphasized. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2430 Semester 3 Mental Health (2 Credits) - This course introduces the student to the specialty area of Mental Health. The Mental Health content will explore the unique health care considerations for persons with mental illness across the lifespan. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2455 Semester 3 Clinical Practice Specialty (3 Credits) - This course will focus on the client with specialized needs across the lifespan. Students will have the opportunity to explore the wonder of human gestation from conception to post-partum care of the newborn and mother. Pediatric nursing will be experienced in the clinical and simulation setting where theories of growth and development will be foundational in designing patient care. Family-centered care will be examined as the context of client development, response to illness and health promotion. External systems such as culture and religion will be considered as influencing client health and illness. Students will provide care for the client with complex multiple needs in the clinical setting. Concepts of mental health and illness will be explored in the clinical and simulation setting. Students will have the opportunity to observe, experience, and design nursing care for the hospitalized and community client with mental health needs. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2520 Semester 4 Leadership (1 Credit) - This course introduces concepts related to leadership skills and management for nurses within the multidisciplinary health care team. Healthcare policy and regulatory processes impact on nursing practice are analyzed. Ethical principles and diversity are reviewed. Quality improvement concepts in health care are examined. Community service and education projects are implemented. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2550 Semester 4 Clinical Practice (4 Credits) - This course offers opportunities to care for patients across the lifespan in a variety of medical-surgical settings. The student will have opportunity to apply theory to practice in complex clinical situations. Critical thinking is supported by best practice and threaded throughout the course. The leadership role is explored in clinical and simulated laboratory experiences. The student nurse will be mentored by a practicing Registered Nurse in the patient care setting. The student will establish learning outcomes and identify areas of growth. Students will demonstrate professionalism and accountability for their actions. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2560 Semester 4 Med Surg Advanced (3 Credits) - This course synthesizes knowledge from previous semesters to provide care for hospitalized patients with complex medical-surgical needs. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

Required Arts and Sciences (9 Courses)

To complete an A.S. Degree, student must complete 32 MNTC credits from 6 of the 10 MNTC Goal Areas. Complete the following required courses:

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL240 Pathophysiology (3 Credits) - This course provides an in-depth study of the chemical, biological and psychological process involved with alterations of health, using systemic and non-systemic approaches. Through case studies, students will test theories taught in class by reading background information about patients, forming possible diagnosis, deciding what tests to run, analyzing data and forming conclusions about the patients conditions. They will then justify possible treatments. (Prerequisite: Completion of BIOL 230 with a grade of C or better.) (MNTC 3: Natural Sciences)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites:

Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

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Professional Nursing - Associate of Science Degree

64 Credits AS3363, Academic Catalog 2024-2025

The South Central College Professional Nursing Associate of Science in Nursing Degree (ASN) is approved by Minnesota State Colleges and Universities and the Minnesota Board of Nursing.

An **Associate of Science in Nursing (ASN)** Degree will prepare a student for the future registered nurse role. The RN role is important to leading a team and overseeing safe, high-quality care for diverse clients and families across the lifespan. Employment is with clinics, long-term care and assisted living, home care, treatment facilities, and hospitals. The ASN degree can be earned in four semesters after the Pre-Nursing requirements are completed. Once accepted into the Professional Nursing program, you will be able to enroll in nursing (NURS) classes. Successful completion of the Professional Nursing program provides eligibility to take the NCLEX-RN exam (National Council Licensure Examination is a nationwide examination for licensure in the U.S. and Canada) enabling you to obtain the RN credential for entry level practice.

If already an LPN and interested in becoming a registered nurse, the Associate of Science in Nursing (ASN) degree is an option for you. This is accomplished by applying to the [LPN to RN Transition Plan](#) which is part of the ASN program. The LPN to RN Transition Plan grants advanced standing of four (4) credits to the future LPN to RN student. In your first semester of the nursing program, completion of one course, NURS 2200 LPN to RN Transition Role is required. The course is four (4) credits and a combination of theory, lab, and clinical to "transition" LPN students to the RN role. Subsequent semesters are with the traditional, non-degree ASN students.

It is recommended students take as many of the required liberal arts and science courses as possible before beginning the Nursing program which is a full-time study.

Individuals earning an ASN Degree may transfer credits to a four-year institution to work towards a Bachelors of Nursing Degree. Learners will be required to take additional liberal arts and science courses, and should visit with whichever institution they wish to transfer to for further information.

Admitted Nursing candidates are required to participate in a background study.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (13 Courses)

Complete the following courses:

NURS2230 Semester 1 Pharmacology (2 Credits) - This course provides students the opportunity to learn pharmacology concepts and biological influences on body systems. Drug classifications will provide the foundation for learning medications within groups including desired and undesired effects. Standards for safe practice will be identified. Students will use the nursing process for medication management. Use of current pharmacology and technology resources will be identified. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2240 Fundamental Concepts (2 Credits) - This course introduces the student to the basic concepts in nursing. Topics include: nursing process, critical thinking, communication, cultural competence, professionalism, the multi-disciplinary team, scope of practice, nutritional concepts, and legal and ethical issues. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2275 Semester 1 Skills Lab (2 Credits) - This course provides students the opportunity to learn basic nursing procedures, equipment, and health assessments in the laboratory setting. The six rights of medication administration and dosage calculation will be explained and practiced. Medical terminology, abbreviations, and documentation will be threaded throughout the course. Credible nursing resources will be identified. Competencies related to infection control, asepsis, patient safety, mobility, vital sign measurements, oxygenation, and elimination will be achieved. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2250 Semester 1 Clinical Practice (2 Credits) - This course provides an opportunity to integrate laboratory and supervised client care in the long-term health care setting. Students utilize the Nursing Process to collect data, implement nursing interventions and administer medications. Emphasis is placed on organization, critical thinking, therapeutic communication, and use of the EHR (electronic health record). Professional behavior will be modeled including ethics, maintaining confidentiality, and recognizing the hierarchy structure in health care. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2320 Semester 2 Med-Surg Basics (3 Credits) - This course will focus on the medical-surgical nursing basics for assessment and planning of the care for adult patient with common illnesses. The emphasis is on the following systems/conditions: cardiovascular, respiratory, endocrine, neurological, musculoskeletal, gastrointestinal, and renal. Case studies, discussions, group projects, software programs, and exams will be utilized in identifying the patient's response to illness. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2375 Semester 2 Skills Lab and Pharmacology (2 Credits) - Students will refine nursing skills including performing a health history, assessments, pharmacology, math competence, and advanced skills in the laboratory setting to enhance the acute care clinical experiences.

(Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2350 Semester 2 Clinical Practice (4 Credits) - Students apply theory related to alteration in body systems through observation, assessment and interaction with clients in laboratory and acute care settings. Nursing interventions are individualized to meet each client's needs with consideration of the client's culture. The Nursing Process is implemented with an emphasis on critical thinking. Organizational skills are developed with opportunities to care for multiple clients. Students will demonstrate effective communication with other members of the multidisciplinary health care team. Professional nursing behavior will be demonstrated. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2420 Semester 3 Maternal-Child Health (2 Credits) - This course introduces the student to the specialty area of Maternal Child Health. It will explore the unique health care considerations of women, children and their families. Incorporating growth and development theories, culture, legal, and ethical implications, and family centered patient education. This course explores antepartum, intrapartum, postpartum, well-child care, and pediatric health issues and health promotion. The importance of family centered care is emphasized. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2430 Semester 3 Mental Health (2 Credits) - This course introduces the student to the specialty area of Mental Health. The Mental Health content will explore the unique health care considerations for persons with mental illness across the lifespan. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2455 Semester 3 Clinical Practice Specialty (3 Credits) - This course will focus on the client with specialized needs across the lifespan. Students will have the opportunity to explore the wonder of human gestation from conception to post-partum care of the newborn and mother. Pediatric nursing will be experienced in the clinical and simulation setting where theories of growth and development will be foundational in designing patient care. Family-centered care will be examined as the context of client development, response to illness and health promotion. External systems such as culture and religion will be considered as influencing client health and illness. Students will provide care for the client with complex multiple needs in the clinical setting. Concepts of mental health and illness will be explored in the clinical and simulation setting. Students will have the opportunity to observe, experience, and design nursing care for the hospitalized and community client with mental health needs. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2520 Semester 4 Leadership (1 Credit) - This course introduces concepts related to leadership skills and management for nurses within the multidisciplinary health care team. Healthcare policy and regulatory processes impact on nursing practice are analyzed. Ethical principles and diversity are reviewed. Quality improvement concepts in health care are examined. Community service and education projects are implemented. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2550 Semester 4 Clinical Practice (4 Credits) - This course offers opportunities to care for patients across the lifespan in a variety of medical-surgical settings. The student will have opportunity to apply theory to practice in complex clinical situations. Critical thinking is supported by best practice and threaded throughout the course. The leadership role is explored in clinical and simulated laboratory experiences. The student nurse will be mentored by a practicing Registered Nurse in the patient care setting. The student will establish learning outcomes and identify areas of growth. Students will demonstrate professionalism and accountability for their actions. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2560 Semester 4 Med Surg Advanced (3 Credits) - This course synthesizes knowledge from previous semesters to provide care for hospitalized patients with complex medical-surgical needs. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

Required Arts and Sciences (9 Courses)

To complete an A.S. Degree, student must complete 32 MNTC credits from 6 of the 10 MNTC Goal Areas. Complete the following required courses:

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL240 Pathophysiology (3 Credits) - This course provides an in-depth study of the chemical, biological and psychological process involved with alterations of health, using systemic and non-systemic approaches. Through case studies, students will test theories taught in class by reading background information about patients, forming possible diagnosis, deciding what tests to run, analyzing data and forming conclusions about the patients conditions. They will then justify possible treatments. (Prerequisite: Completion of BIOL 230 with a grade of C or better.) (MNTC 3: Natural Sciences)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

OR

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

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Nursing Assistant (Basic Nursing)

4 Credits NA3801, Academic Catalog 2024-2025

The Nursing Assistant-Home Health Aide Program prepares individuals to work in the hospitals, nursing homes and home care settings. Students learn to safely assist clients with basic physical and emotional needs.

Nursing Assistant is NOT a degree program at South Central College. Rather, it is a course designed to prepare you for the Nursing Assistant/Home Health Aide Competency Test.

This course may not be eligible for federal student aid if not taken as part of a designated program. See advisor for further information.

Minnesota law requires that all persons who provide services that involve direct contact with patients and residents at a health care facility be subject to a background study. A student who is disqualified from having direct patient contact as a result of the background study will not be permitted to participate in a clinical placement in a health care facility and will not be allowed to continue in the nursing program or Nursing Assistant Course. Students who have a disqualification that the Minnesota Commissioner of Health may consider setting aside will not be allowed to continue in the nursing program (an exception may be made for students enrolled in the Nursing Assistant Course).

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Required Course (1 Course)

Complete the following course:

HCTC1886 Nursing Assistant (4 Credits) - This 4 credit course meets federal and state criteria for eligibility to take the state test to become a NA, R/HHA. It introduces concepts of basic human needs, the health/illness continuum and focuses on preparing the student to safely perform basic nursing skills needed to function as a Nursing Assistant or Home Health Aide. (Prerequisites: None)

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Surgical Technology - Associate of Applied Science Degree

60 Credits AAS3530, Academic Catalog 2024-2025

The Surgical Technology program prepares students for entry-level employment as surgical technologists in hospitals, surgery centers, and specialty clinics. Surgical Technologists are highly trained professionals who help to deliver patient care as integral members of the operating team. They work closely with surgeons, anesthesia providers, nurses, and other personnel to ensure quality patient care during the procedure.

Responsibilities include gathering and opening instruments and supplies; scrubbing, gowning, and gloving self and others; setting up and organizing instruments, supplies, and medications; and performing counts and assisting during the surgical procedure. Surgical Technologists possess expertise in the theory and application of sterile technique and combine knowledge of human anatomy, surgical procedures, instrumentation tools, and technologies to facilitate a physician's performance.

Successful surgical technologists enjoy a fast-paced environment. They must work with speed, accuracy, and skill. They must be able to anticipate the needs of the surgeon. In addition, excellent communication skills, critical thinking skills, and an aptitude for science are a must. Surgical Technologists must be able to stand for long periods of time and respond effectively and efficiently to emergency situations and work well under pressure.

This program combines didactic, laboratory, and clinical instruction, which provides students with the knowledge and skills required to enter the field of surgical technology. As part of the requirements to graduate, students must take the National Board of Surgical Technology and Surgical Assisting (NBSTSA) Certifying Examination for Surgical Technologists.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

Complete the following courses:

HC1000 Medical Terminology (3 Credits) - This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

SURG1100 Introduction to Surgical Technology (2 Credits) - This course introduces the student to the field of Surgical Technology. Emphasis on history, roles, education of the Surgical Technologist, work environment, career opportunities, attributes for success, legal and ethical concerns, hospital administration and organization, and professional behaviors. Students will be introduced to the importance of certification and joining the national organization. (Prerequisite: HC 1000 - Medical Terminology, BIOL 220 - Anatomy, CHEM 109 - Introduction to Chemistry OR CHEM 110 - Chemistry for Health Sciences.)

SURG1220 Surgical Lab (4 Credits) - This course focuses on applied principles of surgical asepsis in the operating room. It provides an introduction to the physical organization of the surgical suite. Students learn to prepare and maintain the sterile field including identification, care, and handling of instruments, suture, preparation and use of supplies and equipment. Emphasis is on basic skills of the surgical technologist in preparation for and during the operative procedure. (Prerequisite: SURG 1100 Corequisite: SURG 1240)

SURG1240 Surgical Techniques I (6 Credits) - This is the first course that will focus on surgical techniques. This course emphasizes procedures related to general, obstetrics, gynecology, genitourinary, ears, nose, and throat, orthopedics, and ophthalmic surgery. Topics related to anatomy and physiology, microbiology, pathophysiology, wounds, and phases of healing. (Prerequisites: SURG 1100) (Corequisite: SURG 1220)

SURG1330 Pharmacology for the Surgical Technologist (2 Credits) - This course introduces pharmacological fundamentals that correlate with the surgical settings. Emphasis is placed on the role and responsibility of the surgical technologist related to medication handling. Topics to be covered will include surgical team roles, classifications, packaging, measurement, calculations, and delivery of medications. Anesthesia techniques including regional, general, and local administration. (Prerequisites: SURG 1100, 1220 and SURG 1240) (Corequisites: SURG 1340, SURG 1450).

SURG1340 Surgical Techniques II (6 Credits) - This is the second course that will focus on surgical techniques. This course emphasizes procedures related to plastic and reconstructive, oral maxillofacial, vascular, thoracic, cardiac, and neurological surgery. Topics related to anatomy and physiology, microbiology, pathophysiology, wounds, and phases of healing. (Prerequisites: SURG 1100, SURG, 1220 and SURG 1240) (Corequisites: SURG 1330, SURG 1450.)

SURG1450 Surgical Clinical (5 Credits) - Students will be scrubbing in a hospital operating room. This clinical will prepare students to perform in the role of first scrub. Students will assist in a variety of surgeries and related duties, and will apply knowledge of surgical techniques, procedures, equipment, instruments and supplies along with increasingly developing their skills to more complex procedures. (Prerequisites: SURG 1100, SURG 1220, SURG 1240) (Corequisites: SURG 1330, SURG 1340).

SURG1460 Career & Exam Prep (1 Credit) - This course covers topics to prepare students for the National Certification Exam and careers for surgical tech graduates. This class focuses on resume writing, simulated job interview, and review for the National Certification Exam.

Students are required to complete the Program Assessment Exam conducted by the Association of Surgical Technologists. (Prerequisites: SURG 1100, SURG 1220, SURG 1240, SURG 1330, SURG 1340) (Corequisite: SURG 1470).

SURG1470 Surgical Internship (5 Credits) - Students will continue scrubbing in a hospital operating room. This internship will allow students to perform in the role of first scrub. Students will assist in a variety of surgeries and related duties, and will apply knowledge of surgical techniques, procedures, equipment, instruments and supplies along with increasingly developing their skills to more complex procedures. (Prerequisites: SURG 1100, SURG 1220, SURG 1240, SURG 1330, SURG 1340, SURG 1450) (Corequisite: SURG 1460).

Required Arts and Sciences (7 Courses)

Choose from the following courses.

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

OR

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

HUM121 Introduction to the Humanities (4 Credits) - This course is an overview of the principal trends in Western thought and artistic expression from ancient times to the contemporary. Its aim is to foster an appreciation of how diverse ideas and works of art have contributed to our understanding of the universal human experience. Classroom instruction will be supplemented by guided tours of museums/exhibitions, and attendance at live performances of works pertinent to the course. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities & Fine Arts)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

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Early Childhood Education - Associate of Applied Science Degree

60 Credits AAS3523/AAS2518, Academic Catalog 2024-2025

The Early Childhood Education Associate of Applied Science (AAS) Degree is designed to prepare individuals for employment in a variety of early childhood and educational settings as early childhood teachers, family child care providers, nannies, directors or site coordinators, and paraprofessionals within a school system

Education for early childhood licensure is provided by South Central College according to the Minnesota Department of Human Services educational requirements. Students learn about child growth and development, positive child guidance strategies, providing safe environments, maintaining children's health, enhancing literacy, cultural sensitivity, children's mental health, special education, and best practices for promoting developmentally appropriate learning experiences for young children

The AAS degree in Early Childhood Education can be transferred seamlessly to the University of Wisconsin-River Falls to pursue a Bachelor's Degree in Early Childhood Education, with or without certification.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (15 Courses)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE1310 Title not found (0 Credits) - Description not available

OR

ECE1311 Infant-Toddler Development and Mental Health (3 Credits) - This course provides an overview of infant-toddler theory and development whether in home or center-based settings. Students will gain knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: ECE 1210)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the

differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2510 ECE Internship - Instructor Permission Required (3 Credits) - This course provides students an opportunity to demonstrate the early-childhood-teaching competencies explored in other classes while guided by a teacher in a licensed early-childhood program. These competencies include: developing active and developmentally appropriate environments accessible to the multiple needs of learners, positive behavior guidance strategies, communication skills, and development of professional skills such as communication and respectful interactions with families, colleagues, and other potential partners in the care and education of young children in their care. (Prerequisite: Instructor approval)

ECE2520 Children with Challenging Behaviors (3 Credits) - This course supports students' understanding of children's behavioral problems and identifies intervention strategies to prevent and resolve problem behaviors. Effective behavior modification techniques and designing behavior plans will be explored. (Prerequisites: ECE 1210 & ECE 1230)

ECE2530 Curriculum Planning (3 Credits) - This course provides an advanced level of curriculum planning. Emphasis is on organizing, implementing, and evaluating developmentally appropriate curricula. (Prerequisite: ECE 1270)

ECE2550 Cognitive Development (3 Credits) - This course provides an overview of cognitive and executive functioning experiences in home, school, or center-based settings. Students integrate knowledge of child development, learning environments, and teaching methods to promote curiosity, attention, perception, memory, problem solving, logical thinking, and executive functioning. (Prerequisite: ECE 1210)

ECE2560 Introduction to Language and Literacy (3 Credits) - This course is an introduction to children's language and literacy development from birth to age eight. Students will obtain skills in creating developmentally appropriate learning experiences that support both oral language and emerging literacy skills among children at all developmental levels. Students will be exposed to a wide range of instructional practices, approaches, methods, and curriculum materials to support children's language and literacy development. (Prerequisite: ECE 1210)

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 Introduction to Children's Mental Health (3 Credits) - This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

Arts and Sciences - Sociology or Psychology (1 Course)

Select at least one course from MNTC Goal Area 5 in PSYC or SOC.

Arts and Sciences - Communication (1 Course)

Select at least one ENGL or COMM course from MNTC Goal Area 1.

Required Arts and Sciences (7 - 9 Credits)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC goal areas.

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Early Childhood Education - Certificate

18 Credits CERT3521/CERT2516, Academic Catalog 2024-2025

The Early Childhood Education Certificate is designed to prepare individuals for work in a child care center or preschool as an aide or assistant early childhood teacher or in a family child care program. Students will learn about child growth and development, positive guidance, health and safety, cultural sensitivity, and an introduction to best practices for promoting learning for young children.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (6 Courses)

Choose the following courses

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

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Early Childhood Education - Diploma

33 Credits DIP3522/DIP2517, Academic Catalog 2024-2025

The Early Childhood Education Diploma is designed to prepare individuals for work in a child care center or preschool as an assistant or early childhood teacher or in a family child care program. Students will learn about child growth and development, positive guidance, health and safety, cultural sensitivity, learning environments, and best practices for promoting learning for young children.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE1310 Title not found (0 Credits) - Description not available

OR

ECE1311 Infant-Toddler Development and Mental Health (3 Credits) - This course provides an overview of infant-toddler theory and development whether in home or center-based settings. Students will gain knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: ECE 1210)

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 Introduction to Children's Mental Health (3 Credits) - This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

Required Arts and Sciences (6 Credits)

Students must complete 6 MnTC credits from courses in MnTC goal areas 1-10. Courses must be selected consultation with advisor/faculty.

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Early Childhood Education - Mental Health AAS

60 Credits AAS3667/AAS2550, Academic Catalog 2024-2025

The Early Childhood Education Mental Health Associate Degree program equips aspiring educators with the essential skills to nurture the mental well-being of young children. Spanning 60 credit hours, this comprehensive curriculum blends foundational knowledge in early childhood development with cutting-edge mental health principles. Students will learn to identify emotional and behavioral challenges in children, implement evidence-based interventions, and foster a supportive classroom environment. Graduates will emerge as compassionate advocates, ready to address mental health concerns in diverse educational settings, empowering the next generation for a brighter future.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE1311 Infant-Toddler Development and Mental Health (3 Credits) - This course provides an overview of infant-toddler theory and development whether in home or center-based settings. Students will gain knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: ECE 1210)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2520 Children with Challenging Behaviors (3 Credits) - This course supports students' understanding of children's behavioral problems and identifies intervention strategies to prevent and resolve problem behaviors. Effective behavior modification techniques and designing behavior plans will be explored. (Prerequisites: ECE 1210 & ECE 1230)

ECE2570 Capstone (1 - 3 Credits) - The course is designed to allow students to explore a deeper understanding within their area of emphasis in Early Childhood (e.g. Nature Studies, Mental Health, Trauma-Informed Practices) through research, service-learning, portfolio development, and reflective practice. Students will explore and demonstrate the actual applicability of the area of emphasis to the field of early childhood. Offered for variable credit (1-3 credits). (Prerequisite: Instructor Permission).

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 Introduction to Children's Mental Health (3 Credits) - This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

HSER1000 Introduction to Counseling (3 Credits) - This course provides students with an introduction to the skills of counseling. Students will learn how to identify and explore feelings, set up a positive environment, learn effective helping skills, and explore treatment issues. Emphasis will be placed on understanding the principles of interviewing and on the demonstrated application of these skills by the student. Students examine how these skills affect relationship building and therapeutic interventions. Guided encounters, discussions, presentations, and assigned projects will be utilized. (Prerequisites: None)

HSER1020 Behavioral Interventions (3 Credits) - This course provides an in-depth look at positive supports and interventions for those with challenging behaviors, and reviews human development, learning styles, and teaching techniques. Additionally, analysis of a wide variety of multiple positive behavior strategies will be conducted. This course reviews the philosophy of behavior modification and theory, incident and accident reports, and documentation requirements. Emphasis is placed on understanding and supporting an individual's learning barriers by using positive approaches, as well as understanding and responding to behaviors with positive supports. Students will explore how their individual values and personal experiences influence the ways in which they respond to and assess individual's abilities. Students will also acquire knowledge and skills relating to functional and specialized assessments, the importance of using non-aversive interventions and the selection and use of appropriate non-aversive behavioral supports. Methods for designing, planning, developing, and implementing skill orientated support plans are taught in this course. (Prerequisites: None)

Required Arts and Sciences (4 Courses)

Complete the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

Additional Psychology (1 Course)

Choose one Additional PSYC course other than PSYC100 and PSYC230

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Early Childhood Education - Outdoor/Nature Studies AAS

60 Credits AAS3701, Academic Catalog 2024-2025

The Outdoor/Nature Studies Associate Degree in Early Childhood Education offers a unique and immersive approach to nurturing young minds. Spanning 60 credit hours, this program integrates the wonders of nature with current educational techniques. Students learn to utilize outdoor environments as dynamic classrooms, fostering a deeper connection to the natural world while promoting cognitive, physical, and emotional development. Through hands-on experiences, learners explore nature-based learning methods, knowledge in biological and earth sciences, ecological literacy, environmental ethics, and sustainable practices. Graduates will emerge as innovative educators, equipped to create engaging and enriching experiences that cultivate a love for nature, foster environmental stewardship, and lay the groundwork for a lifelong love of learning.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (13 Courses)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2530 Curriculum Planning (3 Credits) - This course provides an advanced level of curriculum planning. Emphasis is on organizing, implementing, and evaluating developmentally appropriate curricula. (Prerequisite: ECE 1270)

ECE2560 Introduction to Language and Literacy (3 Credits) - This course is an introduction to children's language and literacy development from birth to age eight. Students will obtain skills in creating developmentally appropriate learning experiences that support both oral language and emerging literacy skills among children at all developmental levels. Students will be exposed to a wide range of instructional practices, approaches, methods, and curriculum materials to support children's language and literacy development. (Prerequisite: ECE 1210)

ECE2570 Capstone (1 - 3 Credits) - The course is designed to allow students to explore a deeper understanding within their area of emphasis in Early Childhood (e.g. Nature Studies, Mental Health, Trauma-Informed Practices) through research, service-learning, portfolio

development, and reflective practice. Students will explore and demonstrate the actual applicability of the area of emphasis to the field of early childhood. Offered for variable credit (1-3 credits). (Prerequisite: Instructor Permission).

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

AGRI1810 Intro to Sustainable Microfarming (1 Credit) - This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

PLSC1100 Soils I (3 Credits) - This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

Required Arts and Sciences (6 Courses)

Complete the following courses:

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

OR

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a

Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

Choose 1 ART Course (1 Course)

The list of options is included on the master Course Descriptions page.

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Early Childhood Education - Trauma Informed Practices AAS

60 Credits AAS3668/AAS2523, Academic Catalog 2024-2025

The Trauma-Informed Practices Associate Degree within the Early Childhood Education program offers a specialized focus on understanding and addressing trauma's impact on young children. This comprehensive 60-credit-hour curriculum blends core ECE principles with trauma-sensitive approaches. Students delve into the effects of adverse childhood experiences, learning trauma-responsive strategies to create safe and nurturing environments. Courses cover developmental psychology, resilience-building techniques, and trauma-informed interventions. Hands-on experiences enhance students' ability to identify trauma indicators and implement supportive interventions. Graduates will emerge as empathetic educators, equipped to foster healing and growth in children affected by trauma, empowering them to thrive academically and emotionally.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

Complete the following courses:

ECE1205 Introduction to Early Childhood Education (3 Credits) - This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2520 Children with Challenging Behaviors (3 Credits) - This course supports students' understanding of children's behavioral problems and identifies intervention strategies to prevent and resolve problem behaviors. Effective behavior modification techniques and designing behavior plans will be explored. (Prerequisites: ECE 1210 & ECE 1230)

ECE2570 Capstone (1 - 3 Credits) - The course is designed to allow students to explore a deeper understanding within their area of emphasis in Early Childhood (e.g. Nature Studies, Mental Health, Trauma-Informed Practices) through research, service-learning, portfolio development, and reflective practice. Students will explore and demonstrate the actual applicability of the area of emphasis to the field of early childhood. Offered for variable credit (1-3 credits). (Prerequisite: Instructor Permission).

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 Introduction to Children's Mental Health (3 Credits) - This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

HSER1000 Introduction to Counseling (3 Credits) - This course provides students with an introduction to the skills of counseling. Students will learn how to identify and explore feelings, set up a positive environment, learn effective helping skills, and explore treatment issues. Emphasis will be placed on understanding the principles of interviewing and on the demonstrated application of these skills by the student. Students examine how these skills affect relationship building and therapeutic interventions. Guided encounters, discussions, presentations, and assigned projects will be utilized. (Prerequisites: None)

HSER1020 Behavioral Interventions (3 Credits) - This course provides an in-depth look at positive supports and interventions for those with challenging behaviors, and reviews human development, learning styles, and teaching techniques. Additionally, analysis of a wide variety of multiple positive behavior strategies will be conducted. This course reviews the philosophy of behavior modification and theory, incident and accident reports, and documentation requirements. Emphasis is placed on understanding and supporting an individual's learning barriers by using positive approaches, as well as understanding and responding to behaviors with positive supports. Students will explore how their individual values and personal experiences influence the ways in which they respond to and assess individual's abilities. Students will also acquire knowledge and skills relating to functional and specialized assessments, the importance of using non-aversive interventions and the selection and use of appropriate non-aversive behavioral supports. Methods for designing, planning, developing, and implementing skill orientated support plans are taught in this course. (Prerequisites: None)

HSER1030 Poverty (3 Credits) - This course examines the causes and consequences of poverty. Students will learn the terminology and analyze the philosophical, conceptual, and theoretical frameworks utilized by diverse agents to understand and address poverty. Specific interventions are explored and analyzed. The goal of this course is to develop social work professionals who understand the problem of poverty from a variety of disciplines, understand key concepts, and will be prepared and willing to intervene regardless of area of practice. (Prerequisite: None)

Required Arts and Sciences (5 Courses)

Complete the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

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Family Services - Associate of Applied Science Degree

60 Credits AAS3515/AAS2515, Academic Catalog 2024-2025

This award will prepare individuals for careers in a variety of family and child services settings. Students will learn skills such as positive behavioral interventions, health and safety, cultural sensitivity, family dynamics, record keeping and interpersonal communication.

The Family Service Specialist program is designed to establish a foundation in early childhood education, improve the quality of early childhood services, and prepares learners for positions in several areas in the health, human services, and education fields with children, adolescents, adults, and senior citizens. Those who may be interested in Social Work, Sociology, Psychology, Home Visitor for children and families or other health-related areas may want to consider the Family Service Specialist program as a well-rounded educational base to support further development.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (14 Courses)

Complete the following courses:

ECE1210 Child Growth and Development (3 Credits) - This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 Health, Wellness & Nutrition (3 Credits) - This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 Behavior Guidance (3 Credits) - This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 Diverse Children and Family Relations (3 Credits) - This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 Creative Activities and Environments (3 Credits) - The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE1310 Title not found (0 Credits) - Description not available

OR

ECE1311 Infant-Toddler Development and Mental Health (3 Credits) - This course provides an overview of infant-toddler theory and development whether in home or center-based settings. Students will gain knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: ECE 1210)

ECE2310 Introduction to Special Education (3 Credits) - This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2580 Observation and Assessment (3 Credits) - This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing

objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 Introduction to Children's Mental Health (3 Credits) - This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

HSER1000 Introduction to Counseling (3 Credits) - This course provides students with an introduction to the skills of counseling. Students will learn how to identify and explore feelings, set up a positive environment, learn effective helping skills, and explore treatment issues. Emphasis will be placed on understanding the principles of interviewing and on the demonstrated application of these skills by the student. Students examine how these skills affect relationship building and therapeutic interventions. Guided encounters, discussions, presentations, and assigned projects will be utilized. (Prerequisites: None)

HSER1010 Disability and Person Centered Planning (4 Credits) - This course gives an overview of how service providers work with one another in order to assure the delivery of optimal supports. It will introduce you to a variety of strategies and techniques used to facilitate person centered planning for individualized and real life goals. Topics covered in the course include: the use of support teams (effective team work, team dynamics, communication skills and problem solving skills); working with families; direct service provider roles and responsibilities; diversity, confidentiality, and advocacy issues; the civil and disability rights movement; interdisciplinary team planning processes; and use of the Planning Alternate Tomorrows with Hope (PATH) planning system to promote minimally invasive care and support strategies. (Prerequisites: None)

HSER1020 Behavioral Interventions (3 Credits) - This course provides an in-depth look at positive supports and interventions for those with challenging behaviors, and reviews human development, learning styles, and teaching techniques. Additionally, analysis of a wide variety of multiple positive behavior strategies will be conducted. This course reviews the philosophy of behavior modification and theory, incident and accident reports, and documentation requirements. Emphasis is placed on understanding and supporting an individual's learning barriers by using positive approaches, as well as understanding and responding to behaviors with positive supports. Students will explore how their individual values and personal experiences influence the ways in which they respond to and assess individual's abilities. Students will also acquire knowledge and skills relating to functional and specialized assessments, the importance of using non-aversive interventions and the selection and use of appropriate non-aversive behavioral supports. Methods for designing, planning, developing, and implementing skill orientated support plans are taught in this course. (Prerequisites: None)

HSER1030 Poverty (3 Credits) - This course examines the causes and consequences of poverty. Students will learn the terminology and analyze the philosophical, conceptual, and theoretical frameworks utilized by diverse agents to understand and address poverty. Specific interventions are explored and analyzed. The goal of this course is to develop social work professionals who understand the problem of poverty from a variety of disciplines, understand key concepts, and will be prepared and willing to intervene regardless of area of practice. (Prerequisite: None)

HSER2000 Field Experience (4 Credits) - This course is designed to provide the student with a practical experience within the social services field. Each field experience is individualized and students will be placed within a social service agency by the instructor based on the student's interest, skill set, and agency availability. The focus of field experience is to give the students experience with a client population and practice modeling social work values and ethics. Students will complete field experience their last semester. (Prerequisites: Instructor approval required)

Required Arts and Sciences (3 Courses)

To complete an AAS Degree, students must complete 16 credits from 3 of the 10 MnTC goal areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MnTC 1: Communication)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

Arts and Sciences Electives

Select an additional 5 credits of Arts and Sciences in consultation with your Advisor.

Energy Technical Specialist - Associate of Applied Science Degree

60 Credits AAS3482, Academic Catalog 2024-2025

The Energy Technical Specialist Associate of Applied Science degree will convey the skills and knowledge necessary to be successful in both the traditional and renewable energy fields. Learners will have the option to take courses in windsmith, ethanol, biodiesel, solar power, fossil fuels and power generation.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Select the following courses:

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1220 Mechanical Systems (3 Credits) - This course includes an introduction to mechanical drive systems, power transmission systems, chain drives, v-belt and, multiple shaft drives, linear motion assemblies, and auxiliary control functions. The student will study the application of spur, helical, bevel and worm gears as well as the use of keys, pins, and splines to attach gears to shafts. Machine elements such as; displacement, velocity, acceleration, springs, power screws, brakes and clutches will also be topics covered. Computer simulation and 3D software will be used throughout the course. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: PHYS 101 or comparable with approval of Instructor)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2110 Sensors and Control (3 Credits) - This course will provide students with the principles of measurement and control systems. The student will gain an understanding of different sensor technologies used to measure and detect physical properties used in a variety of electro mechanical, electro hydraulic and electro pneumatic systems. The student, through lab work, will also learn how to use and troubleshoot sensors used in open and closed loop control systems. Technical writing skills and safety procedures will be implemented throughout the course. This course assumes the student understands basic electrical, mechanical, and programming concepts. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 Mechanical Systems 2 (3 Credits) - This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 Fluid Power II (3 Credits) - This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control

valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 Mechatronics Systems Operations II (3 Credits) - This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

MECA2240 Senior Project (1 - 5 Credits) - The Senior Project at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement. The project must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Project is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. This course may also include an internship and will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisite: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor)

OR

MECA2241 Senior Internship (1 - 5 Credits) - The Senior Internship at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement in an industry setting. The internship must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Internship is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. The internship will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisites: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor).

RENEW1300 Introduction to Traditional/Renewable Energy (MN West) (3 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

Elective Credits (10 Credits)

Technical Courses (Specialty Emphasis) Select 10 credits from the following Energy Technology Specialty Options. Courses are offered at multiple MnSCU colleges. See your advisor for more information. Windsmith, Ethanol, Biodiesel, Solar Power, Fossil Fuels, Power Generation.

Wind Power

ELWT1100 Wind Energy Fundamentals (MN West) (3 Credits) - This course is offered through Minnesota West Community and Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

ELWT1170 OSHA Standards and Climbing Lab (MN West) (2 Credits) - This course is offered through Minnesota West Community and Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

Solar - See Advisor

Ethanol

RENEW1100 Process Dynamics (MN West) (3 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RENEW1101 Ethanol Process Fundamentals (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RENEW1175 Industrial Water Treatment (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RENEW2120 Ethanol Separation Technology (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

Biodiesel

RENEW1100 Process Dynamics (MN West) (3 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RENEW1102 Biodiesel Process Fundamentals (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RENEW1175 Industrial Water Treatment (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1195 Feedstock, Technology & Regulations (MN West) (2 Credits) - This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

Fossil Fuel - See Advisor

Power Gen

ETEC2546 Power Plant Technology (St. Cloud TCC) (4 Credits) - This course is offered through St. Cloud Technical & Community College. Please refer to the course description located at the SCTCC website: www.sctcc.edu

Required Arts and Sciences (4 Courses)

To complete an AAS degree, students must complete courses in 3 of the 10 MNTC goal areas. These courses do not apply to the 45 technical credits and may appear elsewhere on your degree audit. Select the following courses:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MntC Goal Area 1 - Communication)

BIOL115 General Biology I (4 Credits) - This course covers biological processes at the cellular and molecular level. It serves as an introduction to macromolecules and metabolism, cell biology, Mendelian genetics, and gene expression. This course involves a weekly three hour lab. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC Area 3)

OR

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

OR

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

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Machine Tool Technology - Associate of Applied Science Degree

72 Credits AAS3516, Academic Catalog 2024-2025

The A.A.S degree program consists of opportunities for students to work with multiple aspects of Machine Tool Technology including working with engineering drawings, CNC programming, lathe turning, vertical milling and grinding, jig and fixtures, and mold and die. During this A.A.S. degree program, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS). In addition to the technical training, learners in the A.A.S. degree will receive the benefits of valuable Arts and Sciences courses.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (57 Credits)

You must complete all of the following classes:

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1210 Concept Engineering I (4 Credits) - In this course, students will continue developing their understanding of machining and use of tools. Their skills are more fully developed in terms of lathe, milling, grinding and drill press. Hands-on experience and practical application opportunities allow students to increase proficiency with machine tools. (Prerequisites: MTT 1130 and MTT 1140)

MTT1220 CNC Programming I (4 Credits) - This course prepares students to become an introductory (Computer Numerical Control (CNC) machine operator. The topics include machine safety, proper tool setup, tool/work offsets and CNC controller layout. This also includes a basic introduction to Mastercam. (Prerequisites: MTT 1110 and MTT 1120)

MTT1230 Quality Assurance I (2 Credits) - This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T). (Prerequisites: MTT 1130 and MTT 1140)

MTT1240 Applications I (3 Credits) - In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)

MTT2110 Concept Engineering II (4 Credits) - This course is an introduction to the grinding process as it pertains to machining. This includes an understanding of using pedestal grinders and an introduction to surface grinding. Fundamentals of grinding, such as appropriate wheel identification and use, will be addressed. Proper set-up, operation and safety of the bench, pedestal and surface grinders will be introduced in a lab setting. (Prerequisite: MTT 1210)

MTT2120 CNC Programming II (4 Credits) - This course provides students with continuing opportunities to work with computer numerical control (CNC) programming, building on what was learned in the previous programming course. Topics include lathe programming, program downloading, editing and advanced set-ups and operations. (Prerequisite: MTT 1220).

MTT2130 Quality Assurance II (2 Credits) - This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued hands-on interaction with symbols, notations, Geometric Dimensioning and Tolerancing (GD&T), inspection equipment and continuous process improvement. (Prerequisite: MTT 1230)

MTT2140 Applications II (3 Credits) - This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications course. Additional material is also introduced: topics include machining with carbide, producing heat treated parts and basic surface grinding. (Prerequisite: MTT 1240)

MTT2210 Concept Engineering III (4 Credits) - The purpose of this course is to present the fundamentals of mold construction, processes involved in using molds and die casting. The knowledge and skills presented in this course will introduce the machinist to various terminologies and functions of Solidworks through 3D solid modeling and blueprint creation. (Prerequisite: MTT 2110)

MTT2220 CNC Programming III (4 Credits) - This course provides students with continuing opportunities to work with CNC programming, building on what was learned in the previous programming course. Additional material includes alternative work holding and advanced tooling set-up and operation for production of an advanced project. (Prerequisite: MTT 2120).

MTT2230 Quality Assurance III (2 Credits) - This course is a continuation of Quality Assurance II. New topics include more alternative measuring techniques and final inspection of advanced project. (Prerequisites: MTT 2130)

MTT2250 MTT Capstone (4 Credits) - This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications courses. Additional material is also introduced: topics include advanced grinding techniques. This is a variable credit course. (Prerequisites: MTT 2130 and MTT 2140)

Required Arts and Sciences (15 Credits)

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC Goal Areas.

Choose one of the following required courses

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Additional Arts and Sciences

Select an additional 12 credits from MnTC goal areas 2 - 10 to reach the 15 credits required for the AAS.

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Machine Tool Technology - Diploma

31 Credits DIP3665/DIP2459, Academic Catalog 2024-2025

The diploma program consists of opportunities for students to work with multiple aspects of Machine Tool Technology including working with engineering drawings, CNC programming, lathe turning, vertical milling, grinding, and jig and fixtures. During this diploma program, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS).

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (10 Courses)

Complete all of the following courses:

CMAE1528 Career Success Skills (1 Credit) - This is an introductory career success skills course. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills for a successful career. This course will identify the skills important to businesses and help the student assess his/her level of skill. The course will provide suggestions for how the student can improve his/her level of skill. (Prerequisites: None)

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1210 Concept Engineering I (4 Credits) - In this course, students will continue developing their understanding of machining and use of tools. Their skills are more fully developed in terms of lathe, milling, grinding and drill press. Hands-on experience and practical application opportunities allow students to increase proficiency with machine tools. (Prerequisites: MTT 1130 and MTT 1140)

MTT1220 CNC Programming I (4 Credits) - This course prepares students to become an introductory (Computer Numerical Control (CNC) machine operator. The topics include machine safety, proper tool setup, tool/work offsets and CNC controller layout. This also includes a basic introduction to Mastercam. (Prerequisites: MTT 1110 and MTT 1120)

MTT1230 Quality Assurance I (2 Credits) - This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T). (Prerequisites: MTT 1130 and MTT 1140)

MTT1240 Applications I (3 Credits) - In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)

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Machine Tool Technology - Diploma

66 Credits DIP3517, Academic Catalog 2024-2025

The diploma program consists of opportunities for students to work with multiple aspects of Machine Tool Technology including working with engineering drawings, CNC programming, lathe turning, vertical milling and grinding, jig and fixtures, and mold and die. During this diploma program, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS).

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (18 Courses)

You must complete all of the following courses:

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1210 Concept Engineering I (4 Credits) - In this course, students will continue developing their understanding of machining and use of tools. Their skills are more fully developed in terms of lathe, milling, grinding and drill press. Hands-on experience and practical application opportunities allow students to increase proficiency with machine tools. (Prerequisites: MTT 1130 and MTT 1140)

MTT1220 CNC Programming I (4 Credits) - This course prepares students to become an introductory (Computer Numerical Control (CNC) machine operator. The topics include machine safety, proper tool setup, tool/work offsets and CNC controller layout. This also includes a basic introduction to Mastercam. (Prerequisites: MTT 1110 and MTT 1120)

MTT1230 Quality Assurance I (2 Credits) - This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T). (Prerequisites: MTT 1130 and MTT 1140)

MTT1240 Applications I (3 Credits) - In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)

MTT2110 Concept Engineering II (4 Credits) - This course is an introduction to the grinding process as it pertains to machining. This includes an understanding of using pedestal grinders and an introduction to surface grinding. Fundamentals of grinding, such as appropriate wheel identification and use, will be addressed. Proper set-up, operation and safety of the bench, pedestal and surface grinders will be introduced in a lab setting. (Prerequisite: MTT 1210)

MTT2120 CNC Programming II (4 Credits) - This course provides students with continuing opportunities to work with computer numerical control (CNC) programming, building on what was learned in the previous programming course. Topics include lathe programming, program downloading, editing and advanced set-ups and operations. (Prerequisite: MTT 1220)

MTT2130 Quality Assurance II (2 Credits) - This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued hands-on interaction with symbols, notations,

Geometric Dimensioning and Tolerancing (GD&T), inspection equipment and continuous process improvement. (Prerequisite: MTT 1230)

MTT2140 Applications II (3 Credits) - This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications course. Additional material is also introduced: topics include machining with carbide, producing heat treated parts and basic surface grinding. (Prerequisite: MTT 1240)

MTT2210 Concept Engineering III (4 Credits) - The purpose of this course is to present the fundamentals of mold construction, processes involved in using molds and die casting. The knowledge and skills presented in this course will introduce the machinist to various terminologies and functions of Solidworks through 3D solid modeling and blueprint creation. (Prerequisite: MTT 2110)

MTT2220 CNC Programming III (4 Credits) - This course provides students with continuing opportunities to work with CNC programming, building on what was learned in the previous programming course. Additional material includes alternative work holding and advanced tooling set-up and operation for production of an advanced project. (Prerequisite: MTT 2120).

MTT2230 Quality Assurance III (2 Credits) - This course is a continuation of Quality Assurance II. New topics include more alternative measuring techniques and final inspection of advanced project. (Prerequisites: MTT 2130)

MTT2240 Applications III (3 Credits) - This course is a continuation of Applications, new topics include alternative work holding and advanced tooling set-up and operation for production of capstone projects. (Prerequisite: MTT 2140)

MTT2250 MTT Capstone (4 Credits) - This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications courses. Additional material is also introduced: topics include advanced grinding techniques. This is a variable credit course. (Prerequisites: MTT 2130 and MTT 2140)

Required Arts and Sciences (1 Course)

The following course is required:

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

OR

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Additional Arts and Sciences:

Select an additional 3 credits from any MnTC goal area.

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Welding and Machining Technology - Diploma

33 Credits DIP3525/DIP2263, Academic Catalog 2024-2025

The Welding and Machining Diploma consists of both the Welding and Right Skills Now Certificates. Both of these entry level certificates give the students the foundational skills for a broadened manufacturing career pathway. While completing this Diploma, learners will have the opportunity to receive national credentials from the American Welding Society (AWS) and the National Institute of Metalworking Skills (NIMS).

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

WELD1007 Blueprint Reading for Welding (2 Credits) - This course will expand on basic blueprint reading by utilizing skills and knowledge about symbols, charts, and measurements to work more closely with blueprints specific to Welding. (Prerequisite: None)

WELD1011 Welding Safety (1 Credit) - Topics in this course include the basics of welding safety including proper equipment use and maintenance, machine guarding, bloodborne pathogens, safety and health programs, and overall welding safety. (Prerequisite: None)

WELD1025 Introduction to Shielded Metal Arc Welding (SMAW) (1 Credit) - This course will provide an introduction to Shielded Metal Arc Welding (SMAW) on carbon steel in various positions along with an introduction to welding safety, welding, and electrode compatibility. Components of SMAW will be introduced, including selection of materials and steps necessary to complete tasks. Basic information about duty cycle, cable sizing, arc blow, and electrodes will also be presented. (Prerequisite: None)

WELD1035 Introduction to Gas Metal Arc Welding (GMAW) (2 Credits) - The course will cover gas metal arc welding process using short circuit and spray methods on carbon steel. (Prerequisites: None)

WELD1045 Introduction to Gas Tungsten Arc Welding (3 Credits) - This course is designed to instruct welders in welding safety and the Gas Tungsten Arc Welding process (GTAW-TIG). The student will learn fundamentals of GTAW (TIG) for steel, stainless steel and aluminum. Welding procedures are taught on aluminum, carbon and stainless steels. The training covers edge, corner, lap, and fillet welds in all positions. Welding is limited to regular thin flat material, which does not include thick plate, pipe or other irregular shapes. (Prerequisites: None)

WELD1055 Cutting and Brazing (3 Credits) - An introduction to oxy-fuel welding and cutting, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. The course will demonstrate oxy-fuel welding and cutting safety procedures; identify and classify fuels and filler metals; perform entry-level oxy-fuel welding and cutting operations and select proper equipment and materials. A study of all position welding on ferrous and nonferrous metals using oxy-fuel welding process, including welding and cutting, brazing, and soldering operations. (Prerequisite: None)

WELD1075 Advanced Welding Lab (4 Credits) - Advanced welding lab is a course designed to allow students to utilize all of their skills with capstone project based assignments that prepares students to get their American Welding Society credentials. Students can also focus on a

particular skills of choice. (Corequisite: WELD 1011)

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Machine Tool Technology Right Skills Now - Certificate

17 Credits CERT3518/CERT2449, Academic Catalog 2024-2025

This is an entry-level certificate, providing a pathway to the longer MTT diploma and A.A.S. degree. It provides an introduction to multiple elements of CNC production, including working with engineering drawings, CNC programming, lathe turning, vertical milling, and grinding. During this certificate, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS).

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (5 Courses)

Complete the following courses:

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

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Machine Tool Technology Foundations - Certificate

30 Credits CERT3529/CERT2458, Academic Catalog 2024-2025

The certificate program consists of opportunities for students to work with multiple aspects of Machine Tool Technology including working with engineering drawings, CNC programming, lathe turning, vertical milling, grinding, and jig and fixtures. During this certificate program, learners will have the opportunity to receive national credentials from the National Institute for Metalworking Skills (NIMS).

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

Complete the following courses:

MTT1110 CNC Milling Level I (5 Credits) - This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 CNC Turning Level I (5 Credits) - This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 Job Planning, Benchwork and Layout Level I (3 Credits) - This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 Measurement, Materials and Safety Level I (3 Credits) - This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 Machining Computations (1 Credit) - This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1210 Concept Engineering I (4 Credits) - In this course, students will continue developing their understanding of machining and use of tools. Their skills are more fully developed in terms of lathe, milling, grinding and drill press. Hands-on experience and practical application opportunities allow students to increase proficiency with machine tools. (Prerequisites: MTT 1130 and MTT 1140)

MTT1220 CNC Programming I (4 Credits) - This course prepares students to become an introductory (Computer Numerical Control (CNC) machine operator. The topics include machine safety, proper tool setup, tool/work offsets and CNC controller layout. This also includes a basic introduction to Mastercam. (Prerequisites: MTT 1110 and MTT 1120)

MTT1230 Quality Assurance I (2 Credits) - This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T). (Prerequisites: MTT 1130 and MTT 1140)

MTT1240 Applications I (3 Credits) - In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)

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Intermediate Mechatronics Engineering Technology - Diploma

39 Credits DIP3485/DIP2477, Academic Catalog 2024-2025

Mechatronics is a relatively new and rapidly growing field that integrates electronics, mechanics, pneumatics, hydraulics, and computer control systems to create new and improved automated manufacturing production systems. This program is designed for people who are interested in plant maintenance, set up, installation, and assembly. These jobs are found in medical, electronics, agriculture, biotechnology, and automotive industries.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while

demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 Mechanical Systems 2 (3 Credits) - This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 Fluid Power II (3 Credits) - This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 Mechatronics Systems Operations II (3 Credits) - This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

Required Arts and Sciences (2 Courses)

Complete the following courses:

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

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Manufacturing Production Technology - Certificate

16 Credits CERT3286/CERT2259, Academic Catalog 2024-2025

This entry-level certificate introduces students to production technologies and information to start on a manufacturing career pathway. Additionally, students are given opportunities to enhance or develop important work-place knowledge and skills in the areas of communication, math, and physics.

Campuses: Faribault and North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (8 Courses)

Complete all of the following courses:

CMAE1512 Introduction to Manufacturing (2 Credits) - Explore the exciting world of Manufacturing and begin your training for a great career! This course provides an overview of different fields within Manufacturing and the opportunity for students to learn basic skills in a variety of high-demand fields, including Carpentry, Machining, Mechatronics, and Welding. In addition to the hands-on activities that will be completed throughout the course, students will also have the opportunity to earn a Precision Measuring credential.

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1528 Career Success Skills (1 Credit) - This is an introductory career success skills course. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills for a successful career. This course will identify the skills important to businesses and help the student assess his/her level of skill. The course will provide suggestions for how the student can improve his/her level of skill. (Prerequisites: None)

MATH1050 Mathematics for Technical Careers (3 Credits) - Designed primarily for those entering the technical fields, this course develops a number of essential mathematical techniques in algebra, trigonometry and geometry. Among other things, the participant will learn how to simplify and factor algebraic expressions, solve linear and quadratic equations and systems of linear equations, evaluate and use the six trigonometric functions in computing triangle results, and apply geometric concepts to the measurement of both two- and three-dimensional objects. This course is not a prerequisite for college level math courses. (Prerequisite: Next-Generation Accuplacer Arithmetic score of 250 to 300 and a Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

OTEC1001 Computer Software for College (2 Credits) - This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

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Intermediate Mechatronics Engineering Technology - Diploma

39 Credits DIP3485/DIP2477, Academic Catalog 2024-2025

Mechatronics is a relatively new and rapidly growing field that integrates electronics, mechanics, pneumatics, hydraulics, and computer control systems to create new and improved automated manufacturing production systems. This program is designed for people who are interested in plant maintenance, set up, installation, and assembly. These jobs are found in medical, electronics, agriculture, biotechnology, and automotive industries.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while

demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 Mechanical Systems 2 (3 Credits) - This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 Fluid Power II (3 Credits) - This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 Mechatronics Systems Operations II (3 Credits) - This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

Required Arts and Sciences (2 Courses)

Complete the following courses:

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

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Mechatronics Engineering Technology - Associate of Applied Science Degree

60 Credits AAS3470/AAS2470, Academic Catalog 2024-2025

Mechatronics is a relatively new and rapidly growing field that integrates electronics, mechanics, pneumatics, hydraulics, and computer control systems to create new and improved automated manufacturing production systems. This program is designed for people who are interested in plant maintenance, set up, installation, and assembly. These jobs are found in medical, electronics, agriculture, biotechnology, and automotive industries.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (16 Courses)

Select the following courses:

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2110 Sensors and Control (3 Credits) - This course will provide students with the principles of measurement and control systems. The student will gain an understanding of different sensor technologies used to measure and detect physical properties used in a variety of electro mechanical, electro hydraulic and electro pneumatic systems. The student, through lab work, will also learn how to use and troubleshoot sensors used in open and closed loop control systems. Technical writing skills and safety procedures will be implemented throughout the course. This course assumes the student understands basic electrical, mechanical, and programming concepts. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 Mechanical Systems 2 (3 Credits) - This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 Fluid Power II (3 Credits) - This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 Mechatronics Systems Operations II (3 Credits) - This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

MECA2235 Robotics (3 Credits) - This course will provide students with the principles of programming and control of multi-axis robotic systems used in an industrial environment. The student will gain the ability to program FANUC Robots and setup an automated robotic work cell. The student will also perform fundamental automated system troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. This course builds on the student's understanding of basic electrical, mechanical and programming concepts. (Prerequisites: MECA 2110 Sensors and Controls and MECA 2150 Mechatronics System Operation II)

MECA2240 Senior Project (1 - 5 Credits) - The Senior Project at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement. The project must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Project is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. This course may also include an internship and will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisite: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor)

OR

MECA2241 Senior Internship (1 - 5 Credits) - The Senior Internship at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement in an industry setting. The internship must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Internship is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. The internship will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisites: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor).

MECA2250 Mechatronics Systems Operations III (3 Credits) - This course will focus on advanced principals of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of PLC networking, Supervisory Control and Data Acquisition (SCADA), Proportional - Integral - Derivative (PID) Control and the use of Human Machine Interface (HMI) in a Control System. Troubleshooting exercises, technical writing assignments and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2150)

Required Arts and Sciences (4 Courses)

To earn an AAS degree, students must complete 15 MNTC credits in 3 of the 10 MNTC goal areas. The following courses are required:

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MntC Goal Area 1 - Communication)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and

laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

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Mechatronics Industrial Maintenance - Certificate

25 Credits CERT3603/CERT2493, Academic Catalog 2024-2025

This certificate is designed to prepare learners to enter the Industrial Maintenance field in an entry-level position and to enhance the skills of those already employed in the field. This certificate will allow successful learners to be proficient in many different areas including plant safety, reading technical drawings, mechanical drives, bearings, lubrication, alignment, pneumatics, industrial electricity, motor controls, boilers and welding. This stackable certificate allows a pathway for learners to continue their education in Mechatronics.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (10 Courses)

Complete the following courses:

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2240 Senior Project (1 - 5 Credits) - The Senior Project at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement. The project must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Project is a fitting conclusion to a student's education because

through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. This course may also include an internship and will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisite: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor)

MATH1050 Mathematics for Technical Careers (3 Credits) - Designed primarily for those entering the technical fields, this course develops a number of essential mathematical techniques in algebra, trigonometry and geometry. Among other things, the participant will learn how to simplify and factor algebraic expressions, solve linear and quadratic equations and systems of linear equations, evaluate and use the six trigonometric functions in computing triangle results, and apply geometric concepts to the measurement of both two- and three-dimensional objects. This course is not a prerequisite for college level math courses. (Prerequisite: Next-Generation Accuplacer Arithmetic score of 250 to 300 and a Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

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Intermediate Mechatronics Engineering Technology - Diploma

39 Credits DIP3485/DIP2477, Academic Catalog 2024-2025

Mechatronics is a relatively new and rapidly growing field that integrates electronics, mechanics, pneumatics, hydraulics, and computer control systems to create new and improved automated manufacturing production systems. This program is designed for people who are interested in plant maintenance, set up, installation, and assembly. These jobs are found in medical, electronics, agriculture, biotechnology, and automotive industries.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (12 Courses)

Complete the following courses:

CMAE1518 Manufacturing Process and Production (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1514 Safety Awareness (2 Credits) - This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1526 Maintenance Awareness (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1522 Quality Practices (2 Credits) - This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

MECA1122 Electricity - Devices and Circuits I (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1222 Electricity - Devices and Circuits II (3 Credits) - This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122)

MECA1223 Mechanical Systems 1 (3 Credits) - This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1250 Mechatronics Systems Operations I (3 Credits) - This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA2120 Fluid Power 1 (3 Credits) - This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while

demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 Mechanical Systems 2 (3 Credits) - This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 Fluid Power II (3 Credits) - This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 Mechatronics Systems Operations II (3 Credits) - This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

Required Arts and Sciences (2 Courses)

Complete the following courses:

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

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Advanced Welding - Certificate

16 Credits CERT3770/CERT2471, Academic Catalog 2024-2025

Advanced Welding is a continuation of the Intro to Welding Certificate. Course being offered in Advanced welding include Safety, GMAW, GTAW, SMAW, Blue Print Reading, and Fabrication. Students will learn more about safety as they will earn their OSHA 10 card. In the GMAW process students will concentrate more on pulse welding of carbon steel, stainless steel, and aluminum. Students will also be introduced into the Flux Core Process (FCAW). Students will have the opportunity earn a qualifications in AWS D1.1 in those processes. In the GTAW process students will learn and practice welding in out of position welds as well as pulse GTAW welding. The course is also going to introduce students in the fabrication processes.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (9 Courses)

Complete all of the following courses:

WELD1010 OSHA 10 Hour and Welding Safety (1 Credit) - This course is intended to provide entry level general industry workers information about their rights, employer responsibilities, and how to file a complaint as well as how to identify, abate, avoid, and prevent job related hazards on a job site. The training covers a variety of general industry safety and health hazards which a worker may encounter. An emphasis is placed on safety issues that exist in the welding environment. (Prerequisite: None)

WELD1065 Metallurgy (1 Credit) - Students will learn how metal discoveries and uses have impacted human history. The course will also include an introduction to the internal structure of metals, how alloys are made, and how metals are affected in the welding process. (Prerequisite: None)

WELD1108 Advanced Blueprint Reading (2 Credits) - Students will be expanding what was learned in the Introduction to Welding certificate. This class will also add new blueprints that have to do with Fabrication. Blueprints used in this class will also be used to build weldments used in the advanced welding classes. (Prerequisite: WELD 1007 Blueprint Reading or equivalent from another technical college or instructor approval.)

WELD1126 Advanced Shielded Metal Arc Welding (1 Credit) - Advanced shielded metal arc welding (Adv. SMAW) is adding upon the basic taught in the introduction certificate. There will be a more of an emphasis on D.1. 1 3G and 4G groove weld test with backer and without backer. This course will also introduce students to welding pipe and performing the 6G weld test at the end of the course. (Prerequisites: WELD 1025 - Introduction to Shielded Metal Arc Welding or equivalent from another school or instructor approval.)

WELD1136 Advanced Gas Metal Arc Welding (2 Credits) - This course is more concentrated on the pulse welding of Gas Metal Arc Welding (GMAW). Student will learn how to pulse on carbon steel, stainless steel, and aluminum. Students will learn more about the Flux Core Arc Welding (FCAW). At the end of the course student will take D1.1 weld test(s) in Pulse and in FCAW. (Prerequisites: WELD 1035 - Introduction to GMAW or equivalent from another technical college or instructor approval.)

WELD1146 Advanced Gas Tungsten Arc Welding (3 Credits) - In this course students will obtain a better knowledge of how to access the programs of the different machines being used. Students will weld in out of position welds. This course will give students more lab time to practice pipe welding. Students will also learn how to pulse gas tungsten arc welding on stainless steel and aluminum. (Prerequisite: WELD 1045 - Introduction to GTAW or equivalent from another technical college or instructor approval.)

WELD1160 Fabrication I (2 Credits) - In this course students will be introduced to the concepts of fabrication. They will also learn proper names of the equipment and hand tools associated with fabrication. (Prerequisite: WELD 1011 - Safety OSHA 10 or instructor approval.)

WELD1175 Advanced Welding Lab II (4 Credits) - In this course students will be given more lab time to incorporate what they have been learning in the other classes. Students will read a print and weld a weldment that may be used by industry. (Prerequisites: WELD 1011 - Safety OSHA 10, WELD 1126 - Advanced SMAW, WELD 1136 - Advanced GMAW, WELD 1108 - Advanced Blueprint Reading, WELD 1146 - Advanced GTAW, WELD 1160 - Fabrication I or instructor approval.)

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Welding - Certificate

16 Credits CERT3660/CERT2460, Academic Catalog 2024-2025

The Welding Program at South Central College is designed to help you quickly develop technical knowledge and hands-on skills for a high demand job. You have the option to complete the full 16-credit program or take any individual class through the Center for Workforce Education (southcentral.edu/cwe). With these options, novices and advanced level students can benefit from the program.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (7 Courses)

Complete all of the following courses:

WELD1007 Blueprint Reading for Welding (2 Credits) - This course will expand on basic blueprint reading by utilizing skills and knowledge about symbols, charts, and measurements to work more closely with blueprints specific to Welding. (Prerequisite: None)

WELD1011 Welding Safety (1 Credit) - Topics in this course include the basics of welding safety including proper equipment use and maintenance, machine guarding, bloodborne pathogens, safety and health programs, and overall welding safety. (Prerequisite: None)

WELD1025 Introduction to Shielded Metal Arc Welding (SMAW) (1 Credit) - This course will provide an introduction to Shielded Metal Arc Welding (SMAW) on carbon steel in various positions along with an introduction to welding safety, welding, and electrode compatability. Components of SMAW will be introduced, including selection of materials and steps necessary to complete tasks. Basic information about duty cycle, cable sizing, arc blow, and electrodes will also be presented. (Prerequisite: None)

WELD1035 Introduction to Gas Metal Arc Welding (GMAW) (2 Credits) - The course will cover gas metal arc welding process using short circuit and spray methods on carbon steel. (Prerequisites: None)

WELD1045 Introduction to Gas Tungsten Arc Welding (3 Credits) - This course is designed to instruct welders in welding safety and the Gas Tungsten Arc Welding process (GTAW-TIG). The student will learn fundamentals of GTAW (TIG) for steel, stainless steel and aluminum. Welding procedures are taught on aluminum, carbon and stainless steels. The training covers edge, corner, lap, and fillet welds in all positions. Welding is limited to regular thin flat material, which does not include thick plate, pipe or other irregular shapes. (Prerequisites: None)

WELD1055 Cutting and Brazing (3 Credits) - An introduction to oxy-fuel welding and cutting, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. The course will demonstrate oxy-fuel welding and cutting safety procedures; identify and classify fuels and filler metals; perform entry-level oxy-fuel welding and cutting operations and select proper equipment and materials. A study of all position welding on ferrous and nonferrous metals using oxy-fuel welding process, including welding and cutting, brazing, and soldering operations. (Prerequisite: None)

WELD1075 Advanced Welding Lab (4 Credits) - Advanced welding lab is a course designed to allow students to utilize all of their skills with capstone project based assignments that prepares students to get their American Welding Society credentials. Students can also focus on a particular skills of choice. (Corequisite: WELD 1011)

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Auto Body and Collision Technology - Associate of Applied Science Degree

72 Credits AAS3415, Academic Catalog 2024-2025

The A.A.S. Degree in Auto Body and Collision Technology provides students with the opportunity to develop technical skills and to broaden personal horizons through the requirement of 15 Arts and Sciences credits. Each student is required to have tools relative to the trade area.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (18 Courses)

Select the following courses:

ABCT1805 Auto Body Collision Technology Fundamentals (2 Credits) - This course introduces students to the auto body industry, its careers and work standards. Basic shop procedures are covered in the course and students gain insight to the equipment, personal health, safety, and special tools used in auto body repair. (Prerequisites: None)

ABCT1801 Auto Body Lab I (4 Credits) - This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1810 Sheet Metal I (3 Credits) - Students learn the characteristics of sheet metal repair processes in minor damage. Students practice sheet metal repair on panels or damage on vehicles. Students learn material product safety and safe use of body fillers.

ABCT1820 Priming and Refinish System Preparation (3 Credits) - This course teaches students refinishing safety, tools, equipment, surface preparation, and material application procedures.

ABCT1860 Auto Body Welding (3 Credits) - This course covers safety procedures, setup and operation of MIG and oxyacetylene welding equipment. Flat, vertical, horizontal and overhead positions on automotive sheet metal will be practiced. Oxyacetylene and plasma arc cutting processes are included.

ABCT1802 Auto Body Lab II (4 Credits) - This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1850 Trim, Hardware and Glass (3 Credits) - Students learn safe procedures for removal and replacement of stationery and movable glass. Also covered are various methods of trim and hardware attachments.

ABCT1870 Refinishing (3 Credits) - This course teaches panel, blending, and overall refinish procedures using single and multi-stage refinish products.

ABCT1880 Sheet Metal II (3 Credits) - This course teaches advanced sheet metal repairs, replacement and sectioning on exterior cosmetic panels, panel adjustments, and fitting procedures.

ABCT2800 Damage Appraisal and Shop Management (3 Credits) - This course includes identification and calculation of vehicle damage using manuals and computer assisted procedures. Shop management procedures will include inventory management, parts and repair ordering, customer relations, and communication skills.

ABCT2803 Auto Body Lab III (4 Credits) - This course will allow the students to develop and practice skills needed in the auto body industry through hands-on experience.

ABCT1840 Auto Collision Mechanical I (3 Credits) - This course covers the principles of removing and replacing mechanical components in front and rear wheel drive vehicles as related to the auto body industry. The course includes environmental issues. (Prerequisites: None)

ABCT2810 Appearance Matching (3 Credits) - This course teaches students identification and correction of color match and appearance problems. The techniques of tinting, color correction, paint, and vehicle detailing will be covered.

ABCT2820 Composites (2 Credits) - This course teaches students identification and safe repair of interior and exterior automotive plastics including sheet molded compound and fiberglass.

ABCT2830 Measuring and Pulling Systems (3 Credits) - Students will use mechanical and computer assisted measuring systems to analyze and develop repair procedures on frame and unibody vehicles. Frame racks, bench, and floor pulling systems will be utilized to repair direct and indirect damage on open and closed panels.

ABCT2850 Structural Repair (3 Credits) - This course covers replacement, sectioning procedures and corrosion protection of the frame, unibody, and structural members and components. Wheel alignment as it applies during structural repair will be covered.

ABCT2870 Auto Collision Mechanical II (3 Credits) - This course teaches collision service techniques for chassis, electronic components, steering and suspension systems, antilock brake systems, air bags, and related vehicle safety systems.

ABCT2804 Auto Body Lab IV (4 Credits) - This course will allow the student to develop and to practice skills needed in the auto body industry through hands-on experience.

OR

ABCT2910 Occupational Internship (1 - 9 Credits) - Students will work in a sponsoring auto body facility. A training plan will be developed and utilized. (Prerequisite: Instructor Approval)

Technical Elective Credits (1 Credit)

Courses must be selected in consultation with advisor/faculty. Choose from the following courses or see advisor/faculty for additional offerings.

ABCT2910 Occupational Internship (1 - 9 Credits) - Students will work in a sponsoring auto body facility. A training plan will be developed and utilized. (Prerequisite: Instructor Approval)

ABCT2920 Special Problems (1 - 6 Credits) - This course will be of individual design to allow students hands-on or classroom as needed to practice skills required in the auto body industry.

ABCT2805 Auto Body and Collision Air Conditioning (2 Credits) - This course covers the principles of air conditioning. Various system types, collision damage analysis, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, system evacuation, charging, and performance testing will be included. (Prerequisites: None)

Required Arts and Sciences

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC goal areas. Courses must be selected in consultation with advisor/faculty.

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Auto Body and Collision Technology - Diploma

64 Credits DIP3414, Academic Catalog 2024-2025

The Auto Body and Collision Technology diploma is designed to meet the needs of students who wish to concentrate on technical skills and 6 Arts and Sciences credits. Each student is required to have tools relative to the trade area.

Campus: North Mankato

Program Start Semester: Fall

The course requirements listed below are specific to the current school year:

Required Technical Courses (19 Courses)

Complete all of the following courses:

ABCT1805 Auto Body Collision Technology Fundamentals (2 Credits) - This course introduces students to the auto body industry, its careers and work standards. Basic shop procedures are covered in the course and students gain insight to the equipment, personal health, safety, and special tools used in auto body repair. (Prerequisites: None)

ABCT1801 Auto Body Lab I (4 Credits) - This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1810 Sheet Metal I (3 Credits) - Students learn the characteristics of sheet metal repair processes in minor damage. Students practice sheet metal repair on panels or damage on vehicles. Students learn material product safety and safe use of body fillers.

ABCT1820 Priming and Refinish System Preparation (3 Credits) - This course teaches students refinishing safety, tools, equipment, surface preparation, and material application procedures.

ABCT1860 Auto Body Welding (3 Credits) - This course covers safety procedures, setup and operation of MIG and oxyacetylene welding equipment. Flat, vertical, horizontal and overhead positions on automotive sheet metal will be practiced. Oxyacetylene and plasma arc cutting processes are included.

ABCT1802 Auto Body Lab II (4 Credits) - This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1850 Trim, Hardware and Glass (3 Credits) - Students learn safe procedures for removal and replacement of stationery and movable glass. Also covered are various methods of trim and hardware attachments.

ABCT1870 Refinishing (3 Credits) - This course teaches panel, blending, and overall refinish procedures using single and multi-stage refinish products.

ABCT1880 Sheet Metal II (3 Credits) - This course teaches advanced sheet metal repairs, replacement and sectioning on exterior cosmetic panels, panel adjustments, and fitting procedures.

ABCT2800 Damage Appraisal and Shop Management (3 Credits) - This course includes identification and calculation of vehicle damage using manuals and computer assisted procedures. Shop management procedures will include inventory management, parts and repair ordering, customer relations, and communication skills.

ABCT2803 Auto Body Lab III (4 Credits) - This course will allow the students to develop and practice skills needed in the auto body industry through hands-on experience.

ABCT1840 Auto Collision Mechanical I (3 Credits) - This course covers the principles of removing and replacing mechanical components in front and rear wheel drive vehicles as related to the auto body industry. The course includes environmental issues. (Prerequisites: None)

ABCT2810 Appearance Matching (3 Credits) - This course teaches students identification and correction of color match and appearance problems. The techniques of tinting, color correction, paint, and vehicle detailing will be covered.

ABCT2820 Composites (2 Credits) - This course teaches students identification and safe repair of interior and exterior automotive plastics including sheet molded compound and fiberglass.

ABCT2830 Measuring and Pulling Systems (3 Credits) - Students will use mechanical and computer assisted measuring systems to analyze and develop repair procedures on frame and unibody vehicles. Frame racks, bench, and floor pulling systems will be utilized to repair direct and indirect damage on open and closed panels.

ABCT2805 Auto Body and Collision Air Conditioning (2 Credits) - This course covers the principles of air conditioning. Various system types, collision damage analysis, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, system evacuation, charging, and performance testing will be included. (Prerequisites: None)

ABCT2850 Structural Repair (3 Credits) - This course covers replacement, sectioning procedures and corrosion protection of the frame, unibody, and structural members and components. Wheel alignment as it applies during structural repair will be covered.

ABCT2870 Auto Collision Mechanical II (3 Credits) - This course teaches collision service techniques for chassis, electronic components, steering and suspension systems, antilock brake systems, air bags, and related vehicle safety systems.

ABCT2804 Auto Body Lab IV (4 Credits) - This course will allow the student to develop and to practice skills needed in the auto body industry through hands-on experience.

OR

ABCT2910 Occupational Internship (1 - 9 Credits) - Students will work in a sponsoring auto body facility. A training plan will be developed and utilized. (Prerequisite: Instructor Approval)

Required Arts and Sciences (6 Credits)

To complete the diploma, students must complete 6 MNTC credits from 2 of the 10 MNTC goal areas. Courses must be approved by advisor/faculty.

Elective Courses (Suggested)

These courses are not required but are suggested as courses which may be beneficial to you in this career field. You will graduate from this program even if you do not complete these courses.

ABCT2900 Auto Body Lab (1 - 4 Credits) - This course will allow the students to develop and practice skills needed in the auto body industry through hands-on experience. This is a variable credit offering.

ABCT2910 Occupational Internship (1 - 9 Credits) - Students will work in a sponsoring auto body facility. A training plan will be developed and utilized. (Prerequisite: Instructor Approval)

ABCT2920 Special Problems (1 - 6 Credits) - This course will be of individual design to allow students hands-on or classroom as needed to practice skills required in the auto body industry.

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Automotive Service - Associate of Applied Science Degree

72 Credits AAS3417, Academic Catalog 2024-2025

Learners graduating with an A.A.S. degree in Automotive Service receive intense training and experience in the diagnosis, repair and service of contemporary vehicles.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (24 Courses)

Complete all of the following courses:

AST1112 Introduction to Auto Service (2 Credits) - This course is a requirement for the Automotive Service program. The course includes the following topics: shop safety, shop practices and procedures, vehicle identification, use of electronic service information, proper use of hand tools, power tools, hoists and other shop equipment, fasteners, tires, and fluids. (Prerequisite: Admission to the Automotive Service program)

AST1130 Introduction to Hybrid Electric Vehicles (1 Credit) - The course introduces the fundamentals of hybrid electric vehicles. The course includes hybrid vehicle classifications, high voltage safety, vehicle systems, components, operation, and basic diagnosis. (Prerequisite: Admission to the Automotive Service Program).

AST1212 Basic Electrical (2 Credits) - This course covers the fundamentals of electricity. The battery, DC electrical circuits, circuit components, wiring diagrams, digital multimeter use, Ohm's law, Watt's law, and circuit testing will be presented in this course. (Prerequisite: Admission to the Automotive Service program)

AST1222 Advanced Electrical/Electronics (2 Credits) - This course covers the operation and diagnosis of relays, motors, lighting systems, gauges, windshield wiper systems, power windows, power locks, solid state electronic components, and other automotive electrical systems. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST1233 Starting and Charging Systems (3 Credits) - This course covers the operation and diagnosis of the starting and charging systems. Instruction in component identification and operation, circuit diagnosis, and component testing will be included. (Prerequisite: Admission to the Automotive Service Program)

AST1311 Engine Diagnosis (1 Credit) - This course covers engine diagnosis using various types of test equipment. This course focuses on developing the skills needed to diagnose and analyze basic engine problems. Prior knowledge gained by the successful completion of AST 1712 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1323 Lower Engine Service (3 Credits) - This course covers the theory of engine operation and construction, parts identification, measurements, and engine wear locations. Determining the service procedures an engine will require and the reconditioning of all lower engine components are included in this course. Prior knowledge gained by the successful completion of AST 1311 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1332 Upper Engine Service (2 Credits) - This course covers testing and rebuilding the cylinder head. The student will analyze cylinder compression and leakage to determine if valve and valve seat service is necessary. Hands-on experience consists of valve refacing, valve guide service, valve seat reconditioning, valve spring testing, shim selection, and proper assembly and installation. Prior knowledge gained by the successful completion of AST 1311 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1341 Engine Lab (1 Credit) - This course is designed to allow students enrolled in the engine services sequence of courses, time to complete the assigned projects. Prior knowledge gained by the successful completion of AST 1323 and AST 1332 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1412 Clutch & Drive Line (2 Credits) - This course covers standard automotive and light truck clutches. Content includes design, adjustment, overhaul, diagnosis, and repair. Also included are mechanical and hydraulic systems. The drive line section includes phasing, alignment and balance. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1423 Manual Transmission/Transaxle & 4X4 (3 Credits) - This course covers the operation and the proper repair procedures for the types of manual transmissions/transaxles and transfer cases used in late model vehicles. Four wheel drive, locking hubs, axle disconnects, AWD, full-time, and part-time four-wheel drive systems will also be covered. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1513 Suspension/Steering & Wheel Alignment (3 Credits) - This course covers front and rear suspension systems, wheel balance, and steering systems and components. Students will be required to perform a front and rear wheel alignment. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1613 Brakes (3 Credits) - This course will cover the principles of friction and braking systems, disc and drum brakes, parking brakes, and power assist units. Emphasis will be placed on system operation, diagnosis, repair, and maintenance of various types of braking systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1622 Advanced Brakes (2 Credits) - This course will cover anti-lock brake systems. Emphasis will be placed on system operation and controls. Diagnosis, repair, and maintenance of the various types of systems will also be included. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1714 Introduction to Engine Operation (2 Credits) - This course covers the theory of operation, basic diagnosis, and maintenance of the automotive gasoline engine, fuel system, ignition system, and emission system. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST2432 Rear Axle/Differential (2 Credits) - This course will cover the operation and proper repair procedures of current differentials used on late model vehicles. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2442 Automatic Transmission I (2 Credits) - This course covers how an automatic transmission works, the basic parts, functions, and power flow of the hydraulic circuits. This course also includes the basic theory of torque converters, planetary gears, clutches, bands, and hydraulic circuit operation. Prior knowledge gained by successful completion of AST 1112 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2452 Automatic Transmission II (2 Credits) - This course is a hands-on lab class in which various transmissions and transaxles are overhauled, adjusted, and bench tested. Basic overhaul techniques and special tool and gauge usage are included. Prior knowledge gained by successful completion of AST 1112 and AST 2442 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2462 Automatic Transmission III (2 Credits) - The student, after completing this course, will have a basic understanding of troubleshooting, repairs, and adjustments of conventional and electronic shift automatic transmissions. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2723 Fuel Systems I (3 Credits) - This course covers the principles of operation of the various types of automotive fuel systems. Fuel system component identification, operation, and testing is included in this course. Gasoline fuel system diagnosis and repair will be emphasized. (Prerequisite: Admission into the Automotive Service program)

AST2733 Introduction to Automotive Computers (3 Credits) - This course covers the operating principles and testing of automotive computers, sensors, and control devices. (Prerequisite: Admission to the Automotive Service program)

AST2743 Fuel Systems II (3 Credits) - This course covers fuel injection and emissions systems used with gasoline engines. This course focuses on the operation, diagnosis, and repair of automotive fuel injection and emissions systems. (Prerequisite: Admission to the Automotive Service program)

AST2752 Engine Performance & Drivability (2 Credits) - This course emphasizes the accurate and efficient diagnosis and repair of drivability and emission concerns associated with all aspects of engine operation. Particular attention will be placed on computerized engine management systems. (Prerequisite: Admission into the Automotive Service program)

AST2812 Basic Air Conditioning (2 Credits) - This course covers the principles of air conditioning. Various system types, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, charging, and performance testing will be on actual systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

Auto Lab (4 Credits)

NOTE: Qualified sophomores may substitute COE for two credits of Auto Lab. Choose all four of the following courses:

AST2911 Auto Lab I (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST2921 Auto Lab II (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. (Prerequisite: Admission to the Automotive Service Program)

AST2931 Auto Lab III (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by successful completion of AST 1112 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2941 Auto Lab IV (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

Arts and Sciences

To complete an AAS Degree, students must complete 15 MNTC credits from 3 of the 10 MNTC goal areas.

Automotive Service - Diploma

64 Credits DIP3416, Academic Catalog 2024-2025

Learners graduating with a diploma in Automotive Service receive intense training and experience in the diagnosis, repair and service of contemporary vehicles.

Campus: North Mankato

Program Start Semesters: Fall and Spring

The course requirements listed below are specific to the current school year:

Required Technical Courses (28 Courses)

Complete all of the following courses: NOTE: For qualified sophomores, COE may be substituted for up to 2 credits of Auto Lab.

AST1112 Introduction to Auto Service (2 Credits) - This course is a requirement for the Automotive Service program. The course includes the following topics: shop safety, shop practices and procedures, vehicle identification, use of electronic service information, proper use of hand tools, power tools, hoists and other shop equipment, fasteners, tires, and fluids. (Prerequisite: Admission to the Automotive Service program)

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AST1222 Advanced Electrical/Electronics (2 Credits) - This course covers the operation and diagnosis of relays, motors, lighting systems, gauges, windshield wiper systems, power windows, power locks, solid state electronic components, and other automotive electrical systems. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST1233 Starting and Charging Systems (3 Credits) - This course covers the operation and diagnosis of the starting and charging systems. Instruction in component identification and operation, circuit diagnosis, and component testing will be included. (Prerequisite: Admission to the Automotive Service Program)

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AST1323 Lower Engine Service (3 Credits) - This course covers the theory of engine operation and construction, parts identification, measurements, and engine wear locations. Determining the service procedures an engine will require and the reconditioning of all lower engine components are included in this course. Prior knowledge gained by the successful completion of AST 1311 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

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AST1341 Engine Lab (1 Credit) - This course is designed to allow students enrolled in the engine services sequence of courses, time to complete the assigned projects. Prior knowledge gained by the successful completion of AST 1323 and AST 1332 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

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AST1423 Manual Transmission/Transaxle & 4X4 (3 Credits) - This course covers the operation and the proper repair procedures for the types of manual transmissions/transaxles and transfer cases used in late model vehicles. Four wheel drive, locking hubs, axle disconnects, AWD, full-time, and part-time four-wheel drive systems will also be covered. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

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AST1613 Brakes (3 Credits) - This course will cover the principles of friction and braking systems, disc and drum brakes, parking brakes, and power assist units. Emphasis will be placed on system operation, diagnosis, repair, and maintenance of various types of braking systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1622 Advanced Brakes (2 Credits) - This course will cover anti-lock brake systems. Emphasis will be placed on system operation and controls. Diagnosis, repair, and maintenance of the various types of systems will also be included. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1714 Introduction to Engine Operation (2 Credits) - This course covers the theory of operation, basic diagnosis, and maintenance of the automotive gasoline engine, fuel system, ignition system, and emission system. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST2432 Rear Axle/Differential (2 Credits) - This course will cover the operation and proper repair procedures of current differentials used on late model vehicles. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

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AST2452 Automatic Transmission II (2 Credits) - This course is a hands-on lab class in which various transmissions and transaxles are overhauled, adjusted, and bench tested. Basic overhaul techniques and special tool and gauge usage are included. Prior knowledge gained by successful completion of AST 1112 and AST 2442 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

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AST2723 Fuel Systems I (3 Credits) - This course covers the principles of operation of the various types of automotive fuel systems. Fuel system component identification, operation, and testing is included in this course. Gasoline fuel system diagnosis and repair will be emphasized. (Prerequisite: Admission into the Automotive Service program)

AST2733 Introduction to Automotive Computers (3 Credits) - This course covers the operating principles and testing of automotive computers, sensors, and control devices. (Prerequisite: Admission to the Automotive Service program)

AST2743 Fuel Systems II (3 Credits) - This course covers fuel injection and emissions systems used with gasoline engines. This course focuses on the operation, diagnosis, and repair of automotive fuel injection and emissions systems. (Prerequisite: Admission to the Automotive Service program)

AST2752 Engine Performance & Drivability (2 Credits) - This course emphasizes the accurate and efficient diagnosis and repair of drivability and emission concerns associated with all aspects of engine operation. Particular attention will be placed on computerized engine management systems. (Prerequisite: Admission into the Automotive Service program)

AST2812 Basic Air Conditioning (2 Credits) - This course covers the principles of air conditioning. Various system types, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, charging, and performance testing will be on actual systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2911 Auto Lab I (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST2921 Auto Lab II (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. (Prerequisite: Admission to the Automotive Service Program)

AST2931 Auto Lab III (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by successful completion of AST 1112 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2941 Auto Lab IV (1 Credit) - This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

Required Arts and Sciences (6 Credits)

Complete 6 MNTC credits from MNTC goals 1-10.

Technical Electives (1 Credit)

Complete 1 credit from the following courses:

AST1622 Advanced Brakes (2 Credits) - This course will cover anti-lock brake systems. Emphasis will be placed on system operation and controls. Diagnosis, repair, and maintenance of the various types of systems will also be included. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2822 Advanced Heating and Air Conditioning (2 Credits) - This course covers automatic temperature control systems operation, testing and repairs of vacuum and electrical controls, air flow distribution, and heater system controls. (Prerequisites: Admission into the Automotive Service program and AST 2812 or instructor approval)

AST2951 Individualized Study (1 - 8 Credits) - This course allows the student to design a program of study geared toward individual need and special interest. The student will specialize in developing skills and competencies in selected areas. (Prerequisites: Instructor approval)

AST2961 Cooperative Occupational Experience (1 - 8 Credits) - Students will work in a sponsoring automotive service facility. The tasks and activities must be consistent with prior course work. The work schedule will be determined on a case-by-case basis. (Prerequisites: The student must be in the second year of the program and instructor approval is required. Credits are variable up to a maximum of 8)

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Minnesota Transfer Curriculum (MNTC)

40 Credits NA8004, Academic Catalog 2024-2025

Completing the Minnesota Transfer Curriculum (MnTC) requirement alone satisfies the lower division general education requirement at all Minnesota two and four-year public colleges and universities

To complete the Minnesota Transfer Curriculum students must:

1. Complete all ten goals.
2. Complete at least 40 college-level credits from courses listed within the ten goal areas MnTC.
3. Earn a cumulative GPA of 2.0 or higher and a 67% completion rate in coursework completed at South Central College.

If a student completes an MNTC goal area at South Central College and transfers to another MnSCU institution, the goal area will also be completed at the receiving institution.

Campuses: Faribault and North Mankato

Program Start Semesters: Fall, Spring and Summer

The course requirements listed below are specific to the current school year:

Goal Area 1 - Communication

The following courses apply to MNTC Goal 1. To complete the goal, students must complete ENGL 100 and one COMM course from COMM 100, 110, 120 or 140.

ENGL100 Composition (4 Credits) - Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ENGL240 Technical Communication (4 Credits) - This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MnTC Goal Area 1 - Communication)

COMM100 Introduction to Human Communication (3 Credits) - This course is an introductory survey course of the communication discipline. It provides a sample of topics from interpersonal communication, intercultural communication, public speaking, small group communication, media, organizational communication, and interviewing. This course will offer students knowledge about communication and offer the opportunity to improve their skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM140 Interpersonal Communication (3 Credits) - In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer

Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

Goal Area 2 - Critical Thinking

Completion of the full 40 credit MnTC satisfies this requirement OR you may choose one of the courses below.

CAP250 Associate of Arts Capstone Class (1 Credit) - This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

COMM120 Small Group Communication (3 Credits) - This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

CRTK100 Critical Thinking (3 Credits) - This course helps students acquire and develop critical thinking skills. Focused on the practical application of the principles of good reasoning, it encourages them to cultivate cognitive virtues such as consistency, self-awareness, open-mindedness, fairness, and intellectual humility. Students will be taught how to: recognize (and make) good arguments, identify (and avoid) logical fallacies and cognitive biases, articulate ideas in a clear and precise way, understand the significance and limits of the scientific method, and critically evaluate sources in the media. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: 2 Critical Thinking)

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

HUM100 Critical Thinking (3 Credits) - This course introduces students to the importance of critical thinking in our culture today. Students will be provided with methods of critical thinking as well as relevant topics on which to practice their skills. (Prerequisites: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0080 and READ 0090 or READ 0095 with a grade of C or higher) (MNTC 2: Critical Thinking)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL220 Cyber Ethics (4 Credits) - This course introduces students to basic ethical theories and concepts and applies them to emerging issues in technology. It includes consideration of the ethical obligations of workers in technology industries along with controversies regarding social media, privacy, censorship, automation, and online discrimination. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC Goal Areas: 2 and 9).

Goal Area 3 - Natural Sciences

Select at least two courses from two different disciplines.

BIOL100 Introduction to Biology (4 Credits) - Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

BIOL115 General Biology I (4 Credits) - This course covers biological processes at the cellular and molecular level. It serves as an introduction to macromolecules and metabolism, cell biology, Mendelian genetics, and gene expression. This course involves a weekly three hour lab. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC Area 3)

BIOL116 General Biology II (4 Credits) - This course covers biology at the organismal, population and system level. It will emphasize organismal diversity, population and community ecology and ecosystems. Students will gain an understanding of how evolutionary advances have occurred among populations due to natural selection. This course involves a weekly three hour lab. (Prerequisites: Next-Generation Accuplacer score of 250 or above, or Classic Accuplacer Reading score of 78 or higher, or either ENGL 0090 or EAP 0095 or READ 0095 with a C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND a Next-Generation Accuplacer QAS score of 237 or higher or Classic Accuplacer College Level Math score of 50 or higher, or either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC area 3)

BIOL162 Human Biology (4 Credits) - This one-semester course is an introduction to the biology of the human body. Basic form and function of the body systems and their interactions will be emphasized. Other topics include: terminology, basic chemistry, cell biology genetics, molecular biology and nutrition as it relates to the human body. This course contains a laboratory portion. (Minnesota Transfer Curriculum goal area 3) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL211 Genetics (4 Credits) - This is an introductory Genetics course which covers the study of biologically inherited traits. It will emphasize Mendelian genetics as well as molecular genetics. Students will explore classical, population, and molecular genetics. Students will learn genetics through lecture, solving genetics problems, and demonstrating concepts from lecture through laboratory experimentation. (Prerequisites: BIOL 115. BIOL 116 is strongly recommended) (MNTC Goal Area 3)

BIOL215 General Ecology (4 Credits) - This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

BIOL220 Human Anatomy (4 Credits) - This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 Human Physiology (4 Credits) - This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL240 Pathophysiology (3 Credits) - This course provides an in-depth study of the chemical, biological and psychological process involved with alterations of health, using systemic and non-systemic approaches. Through case studies, students will test theories taught in class by reading background information about patients, forming possible diagnosis, deciding what tests to run, analyzing data and forming conclusions about the patients conditions. They will then justify possible treatments. (Prerequisite: Completion of BIOL 230 with a grade of C or better.) (MNTC 3: Natural Sciences)

BIOL270 Microbiology (4 Credits) - This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

CHEM108 Introduction to Chemistry (4 Credits) - A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF

score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

CHEM110 Chemistry for the Health Sciences (4 Credits) - Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

CHEM120 Principles of Chemistry I (5 Credits) - This course introduces the student to the basic principles of chemistry including atomic and molecular structure, bonding, chemical reactions, solution chemistry, stoichiometry, thermochemistry, periodicity, and states of matter. Laboratory reinforces lecture concepts. (Prerequisites: Accuplacer College Level Math score of 103 or ACT Math score of 22 or MATH 120 or currently taking MATH 120 is needed)

CHEM121 Principles of Chemistry II (5 Credits) - Principles of Chemistry II is the second in a series of Chemistry courses designed for students who plan to major in a scientific or health related field. Topics include kinetics, chemical equilibria, acids and bases, buffers, precipitation reactions, thermodynamics, and electrochemistry. Lab topics reinforce lecture concepts. (Prerequisite: CHEM 120) (MNTC 3: Natural Sciences)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

PHYS101 Introductory Physics (3 Credits) - A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

Goal Area 4 - Mathematical/Logical Reasoning

The following courses apply to MNTC Goal 4. To complete the goal, students must complete one course.

MATH110 Quantitative Reasoning (4 Credits) - Quantitative reasoning helps students develop problem-solving skills to think critically in our increasingly quantitative world. Topics in this course include problem-solving, numeracy, proportional reasoning, logic, mathematical modeling, finance, statistics, and probability. MATH 110 is a terminal course and does not serve as a prerequisite for any higher-level mathematics courses. MATH 110 satisfies the MNTC Category 4 - Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0097 OR, completion of MATH 0097 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR Classic Accuplacer score of 56 or higher in Arithmetic AND 76 or higher in Elementary Algebra, OR Next Generation Quantitative Accuplacer score (QAS) of 250-300, OR ACT Math score of 19-36, OR MCA score of 1148-1164.

MATH115 Concepts in Math (4 Credits) - Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

MATH120 College Algebra (4 Credits) - College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH125 Trigonometry (3 Credits) - A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH130 Pre-Calculus (4 Credits) - This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH131 Calculus I (4 Credits) - This course introduces the key concepts of the derivative and the integral. Beginning with the definition of limit, the notion of continuity is developed which is perhaps the most important thread running throughout the calculus. This leads naturally to the process of differentiation and then integration, concluding with the all important Fundamental Theorem of the Calculus. Along the way, applications to classical and modern science, economics, the social sciences and other fields are explored. (Prerequisites: Next-Generation Accuplacer AAF score of 276 or higher or Classic Accuplacer College Math score of 103 or higher or ACT Math score of 24 or higher or completion of either MATH 125 or MATH 130 with a grade of C (2.0) or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH132 Calculus II (4 Credits) - In this continuation of Calculus I, you will begin by investigating more applications of the definite integral, along with useful techniques for evaluating them. This leads in a natural way to a brief introduction to differential equations, and the evaluation of improper integrals and indeterminate forms. Next, the calculus of the transcendental functions is explored in some detail. Then the study of sequences and series is taken up, including power series and Taylor series. Important geometrical concepts such as polar coordinates, parametric equations and vectors in the plane and in space are also covered. (Prerequisites: MATH 131, with a grade of C or better) (MNTC 4: Mathematical/Logical Reasoning)

MATH154 Elementary Statistics (4 Credits) - This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

Goal Area 5 - History and the Social and Behavioral Sciences

The following courses apply to MNTC Goal 5. To complete the goal, students must complete at least two courses from two different disciplines.

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 Principles of Microeconomics (3 Credits) - Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GEOG200 Special Topics in Geography: (3 Credits) - Students will explore a region to learn its unique characteristics and how its physical geography and human geography are closely linked within that region. The focus will be on real-world and hands-on activities that will use an inquiry-driven approach to learning. When applicable, geographic tools, such as GIS (Geographic Information Systems), remote sensing, and map skills, will be presented. The course will have a research component. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History & Social & Behavioral Sciences)

HIST120 U.S. History I (4 Credits) - This course surveys the history of America from the contributions of the indigenous Indian people through the Colonial Era (17th and 18th centuries) to the American Revolution and Early Republic (18th and 19th centuries). It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History & Social & Behavioral Sciences, Human Diversity)

HIST121 U. S. History II (4 Credits) - This course surveys the history of America from the Civil War and Reconstruction, through the New South and the New West, Industrialization, Populism and Progressivism, World War I, the Great Depression and the New Deal, World War II, Cold War America, the 1960's, Vietnam and Beyond. It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

HIST160 World History I (4 Credits) - This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 World History II: The Rise of the West (4 Credits) - The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST205 Special Topics in History: (1 - 4 Credits) - Any HIST class has been specially designed by an SCC History instructor to appeal to SCC students. The instructor has chosen the subject material related to his/her interests, students' interests, or his/her teaching expertise. (Prerequisites: Any HIST course or instructor permission) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

PSYC100 Introduction to Psychology (4 Credits) - This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental

states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC250 Industrial Organizational Psychology (4 Credits) - Industrial-organizational (I/O) psychology is the scientific study of the workplace. Students will be introduced to a variety of issues of relevance to business and industry, including selection and placement of employees, the importance of training and development, organizational development and evaluation, employee motivation and productivity, and the importance of fostering work-life balance. Diversity among organizations and cultures in how they approach these issues will be emphasized. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC280 Special Topics in Psychology: (4 Credits) - This course is designed to provide students with a deeper understanding of a special topic within the field of psychology. Key theoretical and historical underpinnings will be presented to prepare a foundation of understanding. Attention will be focused on how the topic has or may add to the knowledge base of psychology and, if applicable, other academic disciplines. Students will explore the actual or potential applicability of the topic to self, others, and society at large. The course will have a research component. Course may address one of Goal Areas 7-10 depending on the topic. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5: History/Social & Behavioral Sciences)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOC201 Marriage and Family (3 Credits) - The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs; perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

Goal Area 6 - Humanities and Fine Arts

Select at least two courses from two different disciplines.

ART100 Art Appreciation (3 Credits) - Art Appreciation is the historical and topical study of art and its relationship to culture and society. This course incorporates the extensive use of visual materials to teach the essentials and aesthetics of art, civilization, and daily life. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 6: Humanities and Fine Arts)

ART105 Art Foundations (3 Credits) - Art Foundations is a course designed to introduce students to the materials, processes, and concepts of two-dimensional art-making. Through hands-on experience, students will learn to compose the elements of design (line, shape, texture, value, color, and space) according to the principles of organization (balance, emphasis, rhythm, scale and proportion, and unity). Creativity, experimentation, visual problem-solving, and the analysis of imagery are emphasized. (Prerequisites: None). (MnTC 6: Humanities and Fine Arts)

ART130 Painting (3 Credits) - Painting is an introductory studio course in the elements of traditional and contemporary oil painting. Students will explore and discuss the various techniques and methods basic to the creation of paintings. Students will participate in the discussions and critiques of traditional and contemporary paintings and explore the creative process via the medium of oil paint. (Prerequisites: None) (MnTC 6: Humanities and Fine Arts)

ART135 Introduction to Watercolor (3 Credits) - This course is an introduction to Watercolor and the various ways it can be used as a creative tool for aesthetic and conceptual understanding. Students will expand their skills in compositional design through the study and practice of the Elements of Art and the Principles of Organization: Line, Shape, Texture, Value, Color, Space, Balance, Emphasis, Rhythm, Scale/Proportion and Unity. Also examined and practiced in class are the painting techniques of watercolor, including the preservation of whites, transparencies, bleeds, dropping color, wet on wet technique, drybrush and lifting. Through lectures and visual references, historical and contemporary examples of watercolor will be explored and analyzed to expand students understanding of fine art and their own work within this context. In addition, students will learn how to discuss, analyze and evaluate their own work as well as the work of their peers, through class discussions and critiques. Additional learner supplies will be required for this course. (Prerequisites: None) (MnTC 6: Humanities and Fine Arts)

ART140 Digital Photography (3 Credits) - Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MnTC 6: Humanities and Fine Arts)

ART145 Mixed-Media (3 Credits) - This course engages students in a three-dimensional art making experience that draws from a variety of studio practices. Students will participate in artistic endeavors involving traditional and non-traditional materials, techniques and concepts. Emphasis is placed upon the development of aesthetic, conceptual and technical skills to further personal artistic evolution. (Prerequisite: none.) (MnTC 6: The Humanities--The Arts, Literature and Philosophy)

ART150 Drawing I (3 Credits) - This drawing course will further the students' understanding of the core elements of drawing: line, composition, perspective, proportion, texture, value, and shading. These drawing elements will be taught through both traditional and modern methods. The course will also include several short lectures to give examples of the work, and to expand art appreciation. There will be a strong emphasis on the student's ability to critique their own work along with their peers. The dialogue within the classroom will help to expand the student's skills and process. (Prerequisites: None) (MnTC 6: Humanities and Fine Arts)

ART170 Digital Video Production (3 Credits) - This course introduces students to the fundamentals of digital video production. Students will learn how to produce digital video productions utilizing story-boarding, lighting and shooting techniques. Students will use video and audio editing software to import, assemble and edit clips, add transitions, create super-impositions and titles in finished video productions. In addition, they will learn hardware set-up, capturing techniques and video compression schemes as they output their work to various video formats. The course also examines the history and application of video in contemporary art, documentary, film and television production. (Prerequisite: None) (MnTC 6: Humanities and Fine Arts)

ART201 Art History I (3 Credits) - This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 Art History II (3 Credits) - This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART240 Digital Photography 2 (3 Credits) - This course will introduce the student to both the practical and theoretical application of controlling the digital photographer's most important tool, light. The course will deal with, through the use of light modifying devices and software, how to control the direction, quantity, quality, ratio and color of light for both outdoor (natural) and indoor (existing) light. Students enrolled in this course will study advanced lighting techniques, contemporary practices and theories in digital photography. Students will work with intermediate and advanced digital imaging software. This course will emphasize the student's development of individual artistic voice applied in a portfolio of digital photographic images. Students enrolling in this course are required to supply their own digital camera, tripod,

image editing software, and lighting equipment as specified in the course syllabus. Image editing software will also be available for use in the open computer lab at South Central College's North Mankato campus. (Prerequisite: ART 140 or instructor approval) (MNTC 6: Humanities and Fine Arts)

ART250 Drawing II (3 Credits) - This course builds upon the concepts of Drawing I (ART 150). Students will further their understanding of drawing issues by creating artwork that explores process, personal imagery, formal analysis, and conceptual goals. Historical and contemporary models will continue to be explored and discussed relative to the students' own artwork. (Prerequisite: ART 150) (MNTC 6: The Humanities--The Arts, Literature and Philosophy)

ART270 Digital Video Production 2 (3 Credits) - This course covers advanced digital video techniques including scripting, lighting, shooting, editing and the overall video/audio production sequence. Students will develop advanced skills for any profession that involves video production such as television, documentation, filmmaking, contemporary art, web design, multimedia communication, animation and computer gaming. Students will use advanced non-linear video and audio editing software. Final project is a video series or single production of substantial length within the field of artistic, commercial and/or documentary video. Students will examine and utilize advanced application of cinematic philosophy, production techniques and technologies in the fields of film, videography, documentary production, and multimedia. This course also covers the current visual culture and how it applies to a digital cinematic/video production. Students will participate as a member of a production crew on college productions when available. (Prerequisite: a grade of C or higher in ART 170 or instructor permission) (MNTC 6: Humanities and Fine Arts)

ENGL110 Introduction to Literature (4 Credits) - Introduction to Literature allows students to sample various literary forms (plays, prose, poetry, nonfiction) from various histories and cultures. The course is designed to develop critical thinking, reading and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and the Fine Arts)

ENGL111 Introduction to Film (4 Credits) - This course is designed to introduce and acclimate students to film as a significant artistic, rhetorical and cultural medium. Course content focuses on film as an element of popular culture, as well as film genres, cinematic techniques and cinematic conventions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL120 Human Diversity in Literature and Film (4 Credits) - This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

ENGL130 World Literature and Film (4 Credits) - This course introduces students to works of literature and film from a variety of world cultures. The course is designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation and in seeing, believing, and being. The course emphasizes critical thinking, reading, and writing. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ENGL140 British Literature (4 Credits) - This is a one-semester course for students who are interested in the development of English thought and language from the days of the Anglo-Saxons to the present time. Students will examine the historical context of the literature as well as particular authors, ideas, and styles. Class time will be devoted to reading, discussing, and analyzing selected groups of writings representative of major historical periods in the development of British writing. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL150 Introduction to Poetry (4 Credits) - This course introduces students to various elements of the genre of poetry, including (but not limited to) word choice, images, figures of speech, symbols, sounds, patterns of rhythm, and poetic forms. Students will use literary criticism techniques as they study poets and poems from many times, places, and movements of literature. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL160 Introduction to Short Story (4 Credits) - This course introduces students to the genre of short story and literary analysis. Students will examine literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. They will also study the authors and the influence of history and place on the short story form. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL205 Special Topics in Literature & Film: (4 Credits) - This course helps students understand how literature and film tell stories and create versions of history. Students will explore literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. Students will also study the individual cultures that generate the narratives covered in the class. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ENGL206 Children's Literature (4 Credits) - Children's literature provides a survey of literature for children, including its history and its place in contemporary society. The course introduces students to literature for children from birth to age 21, pairing literature with cognitive, emotional, and social development. Students will explore children's literature as real literature, examining literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. We will also study how cultures generate narratives, and how children's

literature can create its own version of history while reflecting its culture(s). (MNTC Goal Area 6 Humanities and Fine Arts) (Prerequisites: ENGL 100 or instructor permission)

ENGL210 Introduction to Creative Writing (4 Credits) - This course introduces students to the study of creative writing. Course content focuses primarily on reading several genres of writing (e.g., short story, poetry, non-fiction, and play/screenplay) and then practicing those forms and completing constructive critique of students' practice. (Prerequisite: ENGL 100 or instructor permission) (MNTC 6: Humanities and Fine Arts)

HUM121 Introduction to the Humanities (4 Credits) - This course is an overview of the principal trends in Western thought and artistic expression from ancient times to the contemporary. Its aim is to foster an appreciation of how diverse ideas and works of art have contributed to our understanding of the universal human experience. Classroom instruction will be supplemented by guided tours of museums/exhibitions, and attendance at live performances of works pertinent to the course. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities & Fine Arts)

HUM130 China: Cultural Tradition and Change (3 Credits) - Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective).

HUM150 Global Connections Travel Seminar (1 Credit) - The Global Connections Seminar is a one-credit course which prepares students for traveling with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

HUM205 Special Topics in the Humanities: (1 - 4 Credits) - This course has been specially designed by an SCC Humanities instructor to appeal to SCC students. The instructor has chosen the subject material related to her or his interests, students' interest, or his or her teaching expertise. (MNTC 6: Humanities and Fine Arts) (Prerequisites: None)

HUM250 Global Connections Travel Seminar II (1 - 3 Credits) - The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 Global Philosophies (3 Credits) - This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

PHIL205 Special Topics in Philosophy: (1 - 3 Credits) - All PHIL 205 courses will help students learn about other areas of philosophy which are important to the study of other disciplines and philosophy itself. Students will explore broader areas of philosophical concern such as metaphysics (free-will, truth, realism, universals, necessity/contingency, causation, mind, time, God, etc.); epistemology (skepticism, inferential justification, knowledge, internalism/externalism, a priori/a posteriori, closure, direct/indirect realism, memorial knowledge, etc.); meta-ethics (moral knowledge, oral realism/anti realism, ethical intuitionism, reductionisms such as utilitarianism, relativism, subjectivism, divine command theory, contractarianism, Aristotelianism/teleology, virtue ethics, etc.). Furthermore, students can also focus on political philosophy, philosophy of religion, and philosophy of science or specialize in some facet of the above topics. All PHIL 205 courses will emphasize the use of primary texts and the development of philosophical thought throughout history. These courses will focus on the most basic questions of human existence (this indeed is philosophy) such as truth, knowledge, free-will, moral rightness, justice, and so forth. We assume answers to these questions in every other study we partake in. For instance, science presupposes the legitimacy of inductive reasoning, the law of non-contradiction, the justification of using inference to the best explanation, the uniformity of nature, the reliability of perception, the nature and possibility of a posteriori knowledge and others. These courses will deal with the questions we presuppose answers to in discussing those things that matter to us. In the end, PHIL 205 courses will give philosophy instructors and students the opportunity to explore areas of philosophy which are of interest not only to the psychologist, historian, and novelist, but also to those who wish to pursue a career in philosophy or become competent in philosophical problems. As Socrates said, "the unexamined life is not worth living." These courses will help encourage others to avoid the unexamined life. (Prerequisite: Any 100 level PHIL course or instructor permission) (MNTC 6: Humanities and Fine Arts)

Goal Area 7 - Human Diversity

The following courses apply to MNTC Goal 7. To complete the goal, students must complete one course.

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

AIS130 Indigenous Cuisine and Culture (3 Credits) - In this course, students will explore the many facets of American indigenous cuisine. This will include historical concepts that impact indigenous food resources such as the forced removal of many tribes from their original landscapes, to government food rationing on reservations as well as within the boarding school system. The course will explore traditional and current indigenous practices of environmental sustainability. Lastly, students will gain an understanding of food sovereignty, both its meaning and its ties to a political/cultural movement. Students will also have the opportunity to prepare and partake in some indigenous cuisine. (MNTC Goal Areas: Goal Area 7 - Human Diversity and Goal Area 9 - Ethical and Civic Responsibility)

ASL101 American Sign Language 1 (3 Credits) - This course teaches the basics of American Sign Language. (Prerequisites: None) (MNTC 7: Human Diversity)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL120 Human Diversity in Literature and Film (4 Credits) - This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

HIST120 U.S. History I (4 Credits) - This course surveys the history of America from the contributions of the indigenous Indian people through the Colonial Era (17th and 18th centuries) to the American Revolution and Early Republic (18th and 19th centuries). It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History & Social & Behavioral Sciences, Human Diversity)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

HIST121 U. S. History II (4 Credits) - This course surveys the history of America from the Civil War and Reconstruction, through the New South and the New West, Industrialization, Populism and Progressivism, World War I, the Great Depression and the New Deal, World War II, Cold War America, the 1960's, Vietnam and Beyond. It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC110 Lifespan Psychology (3 Credits) - This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC230 Abnormal Psychology (4 Credits) - In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC250 Industrial Organizational Psychology (4 Credits) - Industrial-organizational (I/O) psychology is the scientific study of the workplace. Students will be introduced to a variety of issues of relevance to business and industry, including selection and placement of employees, the importance of training and development, organizational development and evaluation, employee motivation and productivity, and the importance of fostering work-life balance. Diversity among organizations and cultures in how they approach these issues will be emphasized. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

SOC201 Marriage and Family (3 Credits) - The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and

core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

SOWK115 Social Welfare Services (4 Credits) - This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

Goal Area 8 - Global Perspective

The following courses apply to MNTC Goal 8. To complete the goal, students must complete one course.

ART201 Art History I (3 Credits) - This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 Art History II (3 Credits) - This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

COMM130 Intercultural Communication (3 Credits) - The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

ENGL130 World Literature and Film (4 Credits) - This course introduces students to works of literature and film from a variety of world cultures. The course is designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation and in seeing, believing, and being. The course emphasizes critical thinking, reading, and writing. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

GEOG100 Elements of Geography (3 Credits) - The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG103 Introduction to Cultural Geography (3 Credits) - This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GST100 Introduction to Global Studies (3 Credits) - This interdisciplinary course develops a basic understanding of the history of globalization, its most pressing current issues, and its advantages and disadvantages. Students will examine the growing interdependence of nations and the migration of peoples and the key issues of power and inequality that affect these relationships. Students will develop cross-cultural understanding and global and regional perspectives through interactive talks and activities involving a variety of topics related to the tension between global homogenization and hegemony vs. global diversity and equality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090, READ 0095 or EAP 0090 with a grade of C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas: 5 and 8).

GST250 Global Studies Practicum (1 Credit) - The purpose of the Global Studies Practicum is to provide students earning a Global Studies Certificate an opportunity to synthesize, integrate, and apply competencies from their coursework to a meaningful experience. The course consists of 12 hours or more of hands-on, experiential learning and 4 hours or more of consultation and supervision from an SCC instructor. The Global Studies Practicum is required in order to receive the Global Studies Certificate and it is recommended you take this course in your final semesters at SCC. As part of the practicum, students will engage in experiential activities, will keep a written record of or otherwise document their experience, and will complete a project that demonstrates their understanding of global issues and their role as global citizens.

The details of the project are to be decided between the student and the instructor. Experiences for which a student has or will already receive academic credit cannot be counted. Examples of appropriate projects include, but are not limited to: 1. Engaging in approved overseas educational travel or international volunteering or internship; 2. Hosting international visitors; 3. Participating in and helping to organize and carry out multicultural or international student activities, including student clubs and/or the Global Connections Conference; 4. Volunteering in local immigrant and refugee community organizations and support organizations; 5. Volunteering as a tutor in the EAP program or local ABE/ESL programs, or volunteering as a tutor in Spanish, ASL, or Somali courses at SCC. An additional site supervisor may be required. Each student must find an instructor who agrees to work with them to design their practicum and oversee their practicum on an independent study basis. The final project will be shared with the Global Education Committee. (Prerequisites: Completion of GST 100 with a grade of C (2.0) or above, or permission of instructor.) (MNTC Goals 8 & 9).

HIST160 World History I (4 Credits) - This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 World History II: The Rise of the West (4 Credits) - The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST205 Special Topics in History: (1 - 4 Credits) - Any HIST class has been specially designed by an SCC History instructor to appeal to SCC students. The instructor has chosen the subject material related to his/her interests, students' interests, or his/her teaching expertise. (Prerequisites: Any HIST course or instructor permission) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

HUM130 China: Cultural Tradition and Change (3 Credits) - Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective).

HUM150 Global Connections Travel Seminar (1 Credit) - The Global Connections Seminar is a one-credit course which prepares students for traveling with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

HUM250 Global Connections Travel Seminar II (1 - 3 Credits) - The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

PHIL105 World Religions (4 Credits) - This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 Global Philosophies (3 Credits) - This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

PSYC210 Social Psychology (4 Credits) - Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

SOC101 Introduction to Sociology (3 Credits) - The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a

far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOLA100 Somali Language I (4 Credits) - This course provides an introduction to Somali language and culture. Communication skills include: speaking, listening, reading & writing. Sensitivity to cultural differences is emphasized. Simple texts dealing with cultural topics are used to develop skill in speaking. The four skills - speaking, comprehending, reading, and writing - are developed simultaneously. This course is designed for students with very little or no previous experience with the Somali language. (Prerequisite: None) (MnTC Goal 8 Global Perspectives)

SOLA102 Somali Language II (4 Credits) - This course is a continuation of SOLA 100 with increased emphasis of Somali culture and language skills including speaking, listening, reading articles and elementary creative writing, as well as awareness of sensitivity to cultural. This course is interactive and taught in Somali. This course use text books and modern media including audio, video recordings, information printed on websites and news in Somali from across world. (Prerequisite: SOLA 100 or instructor permission) (MNTC 8: Global Perspective)

SPAN105 Elementary Spanish I (4 Credits) - Students will be introduced to Spanish as a foreign language. The primary goal of the course is to acquire communicative competence in Spanish in regards to listening, speaking, reading, and writing. Language learning is a gradual process, in which one skill leads to the next, building the basis for more advanced skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 8: Global Perspective)

Goal Area 9 - Ethical and Civic Responsibility

Choose one course.

AIS120 Dakota Culture, History and Language (3 Credits) - This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

AIS130 Indigenous Cuisine and Culture (3 Credits) - In this course, students will explore the many facets of American indigenous cuisine. This will include historical concepts that impact indigenous food resources such as the forced removal of many tribes from their original landscapes, to government food rationing on reservations as well as within the boarding school system. The course will explore traditional and current indigenous practices of environmental sustainability. Lastly, students will gain an understanding of food sovereignty, both its meaning and its ties to a political/cultural movement. Students will also have the opportunity to prepare and partake in some indigenous cuisine. (MnTC Goal Areas: Goal Area 7 - Human Diversity and Goal Area 9 - Ethical and Civic Responsibility)

COMM110 Public Speaking (3 Credits) - Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM150 Introduction to Mass Communication (4 Credits) - Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

ECON110 Principles of Macroeconomics (3 Credits) - Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ENGL115 Global Peace and Social Justice (4 Credits) - Using works of literature such as War is a Force that Gives us Meaning and The Things They Carried, this course provides an introduction to the nature, scope, and methodology of peace studies with a view toward the future. It explores the concept of peace, non-violent movements, and the resolution of conflict between individuals, groups, societies, and nations. It considers the relationships between social justice and economics, human psychology, governmental power, and religion as forces for war as well as forces for peace. (MNTC 9: ETHICAL AND CIVIC RESPONSIBILITY) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

ETHN101 American Racial Minorities (3 Credits) - This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 The Immigrant Experience (3 Credits) - This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration. Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PHIL100 Ethics in Society (3 Credits) - This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PHIL150 Medical Ethics (3 Credits) - This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PHIL220 Cyber Ethics (4 Credits) - This course introduces students to basic ethical theories and concepts and applies them to emerging issues in technology. It includes consideration of the ethical obligations of workers in technology industries along with controversies regarding social media, privacy, censorship, automation, and online discrimination. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC Goal Areas: 2 and 9).

POL110 American Government (3 Credits) - American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

PSYC140 Psychology of Positive Adjustment (4 Credits) - The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

SOC205 Special Topics in Sociology: (3 Credits) - Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 Drugs and Society (3 Credits) - This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs;

perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

Goal Area 10 - People and the Environment

Choose one course.

AIS112 Native American Perspectives (4 Credits) - Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

BIOL101 Introduction to Ecology (4 Credits) - Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

BIOL215 General Ecology (4 Credits) - This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

GEOG101 Introduction to Physical Geography (3 Credits) - This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG104 Introduction to Weather and Climate (3 Credits) - This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

HHP101 Health and the Environment (3 Credits) - This course will examine the impact of complex environmental challenges on human health. This course focuses on the ecological model of health and wellness, a framework that addresses the interrelationships between individuals and their environment, and how these relationships influence the choices that affect health. The course will address the impact of the environment on human risk for common health concerns, to include cancer, heart disease, mental health, infectious disease, and nutrition/fitness. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 10: People and the Environment)

PHIL210 Environmental Ethics (3 Credits) - This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

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ABCT - Auto Body Collision Technology

ABCT1801 - Auto Body Lab I (4 Credits) This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1802 - Auto Body Lab II (4 Credits) This course will allow the students to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT1805 - Auto Body Collision Technology Fundamentals (2 Credits) This course introduces students to the auto body industry, its careers and work standards. Basic shop procedures are covered in the course and students gain insight to the equipment, personal health, safety, and special tools used in auto body repair. (Prerequisites: None)

ABCT1810 - Sheet Metal I (3 Credits) Students learn the characteristics of sheet metal repair processes in minor damage. Students practice sheet metal repair on panels or damage on vehicles. Students learn material product safety and safe use of body fillers.

ABCT1820 - Priming and Refinish System Preparation (3 Credits) This course teaches students refinishing safety, tools, equipment, surface preparation, and material application procedures.

ABCT1840 - Auto Collision Mechanical I (3 Credits) This course covers the principles of removing and replacing mechanical components in front and rear wheel drive vehicles as related to the auto body industry. The course includes environmental issues. (Prerequisites: None)

ABCT1850 - Trim, Hardware and Glass (3 Credits) Students learn safe procedures for removal and replacement of stationery and movable glass. Also covered are various methods of trim and hardware attachments.

ABCT1860 - Auto Body Welding (3 Credits) This course covers safety procedures, setup and operation of MIG and oxyacetylene welding equipment. Flat, vertical, horizontal and overhead positions on automotive sheet metal will be practiced. Oxyacetylene and plasma arc cutting processes are included.

ABCT1870 - Refinishing (3 Credits) This course teaches panel, blending, and overall refinish procedures using single and multi-stage refinish products.

ABCT1880 - Sheet Metal II (3 Credits) This course teaches advanced sheet metal repairs, replacement and sectioning on exterior cosmetic panels, panel adjustments, and fitting procedures.

ABCT2800 - Damage Appraisal and Shop Management (3 Credits) This course includes identification and calculation of vehicle damage using manuals and computer assisted procedures. Shop management procedures will include inventory management, parts and repair ordering, customer relations, and communication skills.

ABCT2803 - Auto Body Lab III (4 Credits) This course will allow the students to develop and practice skills needed in the auto body industry through hands-on experience.

ABCT2804 - Auto Body Lab IV (4 Credits) This course will allow the student to develop and to practice skills needed in the auto body industry through hands-on experience.

ABCT2805 - Auto Body and Collision Air Conditioning (2 Credits) This course covers the principles of air conditioning. Various system types, collision damage analysis, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, system evacuation, charging, and performance testing will be included. (Prerequisites: None)

ABCT2810 - Appearance Matching (3 Credits) This course teaches students identification and correction of color match and appearance problems. The techniques of tinting, color correction, paint, and vehicle detailing will be covered.

ABCT2820 - Composites (2 Credits) This course teaches students identification and safe repair of interior and exterior automotive plastics including sheet molded compound and fiberglass.

ABCT2830 - Measuring and Pulling Systems (3 Credits) Students will use mechanical and computer assisted measuring systems to analyze and develop repair procedures on frame and unibody vehicles. Frame racks, bench, and floor pulling systems will be utilized to repair direct and indirect damage on open and closed panels.

ABCT2850 - Structural Repair (3 Credits) This course covers replacement, sectioning procedures and corrosion protection of the frame, unibody, and structural members and components. Wheel alignment as it applies during structural repair will be covered.

ABCT2870 - Auto Collision Mechanical II (3 Credits) This course teaches collision service techniques for chassis, electronic components, steering and suspension systems, antilock brake systems, air bags, and related vehicle safety systems.

ABCT2900 - Auto Body Lab (1 - 4 Credits) This course will allow the students to develop and practice skills needed in the auto body industry through hands-on experience. This is a variable credit offering.

ABCT2910 - Occupational Internship (1 - 9 Credits) Students will work in a sponsoring auto body facility. A training plan will be developed and utilized. (Prerequisite: Instructor Approval)

ABCT2920 - Special Problems (1 - 6 Credits) This course will be of individual design to allow students hands-on or classroom as needed to practice skills required in the auto body industry.

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Course Descriptions

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ABE - Adult Basic Education

ABE0030 - EAP Bridge (0 Credits) This Bridge course is designed for English Language Learners who need to improve their reading, writing, listening and speaking skills in order to enter the English for Academic Purposes (EAP) courses next semester. The course is TUITION FREE. (Prerequisites: Score of 59 or below on ESL Reading Accuplacer or score of 64 or below on ESL Language Accuplacer or as decided by self-guided placement tools, or SCC Advisors, or EAP faculty.)

ABE0065 - College Prep Math (0 Credits) This College-Prep Math course is designed for students who need to improve their numeracy skills (number sense, fractions, decimal, operations with real numbers, algebraic thinking, etc.) in order to enter MATH 0075/MATH 0085, MATH 0085 or MATH 0095 courses. This course is TUITION FREE. (Prerequisites: None Placement will be determined, based on score earned on SCC's Self Guided Math Placement Test).

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Course Descriptions

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ACCT - Accounting

ACCT1700 - Personal Financial Management (3 Credits) The purpose of this course is to provide insight into personal financial decision making. This includes budgeting, banking, use of credit and credit cards, renting vs. owning a home, retirement investing, investment opportunities, insurance, income taxes, wills, and effects of financial distress on one's life. In addition, we will compare income levels for various occupations. Students will examine real life situations. There will be some professional guest speakers who will share their expertise with the students. (Prerequisites: None)

ACCT1800 - Business Law (3 Credits) This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include ethics, the court system, the legal system, contracts, negotiable instruments, agency and employment, bailments, business organizations, sales and insurance. (Prerequisites: None)

ACCT1810 - Financial Accounting (4 Credits) This course covers the fundamental accounting concepts and principles which are used in a business environment. Topics include an introduction to accounting and business, completing the accounting cycle, inventories, internal controls, receivables, cash flow statements and financial analysis. (Prerequisites: None)

ACCT1811 - Managerial Accounting (4 Credits) This course focuses on current and long-term liabilities, partnerships, corporations, long-term investments, managerial accounting concepts, job costing, process costing, cost-volume-profit analysis, and capital budgeting. (Prerequisite: ACCT1810 with a grade of C or higher)

ACCT1814 - Payroll Accounting (3 Credits) This course covers various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. In addition, we will explore setting up and maintaining a payroll system using Quickbooks. (Prerequisite: None)

ACCT1834 - Computerized Accounting I (3 Credits) This course is an introduction to the use of computers and related software used in the accounting function of the business environment. Topics include, but are not limited to, general ledger accounting, payroll procedures, accounts receivable, and accounts payable. The student will also be introduced to spreadsheet software and its interrelationship with a fully integrated accounting software program. Software for this course includes a general ledger accounting program and a spreadsheet software program. (Prerequisite: Completion of ACCT 1810 or simultaneous enrollment in ACCT 1810 and ACCT 1834 or permission from the instructor.)

ACCT1835 - Computerized Accounting II (3 Credits) This is the second of the two computerized accounting application series. Topics include, but are not limited to, general ledger accounting, accounts receivable, accounts payable, payroll accounting, cash receipts and cash payments, adjusting journal entries and financial reporting. Students will continue to learn intermediate and advanced functions of spreadsheet software. The student is also introduced to business analytics - the scientific process of transforming data into insight for making better business decisions. Software for this program includes spreadsheet software and general ledger software. (Prerequisite: ACCT 1834)

ACCT1870 - Professional Accounting Careers (1 Credit) This course covers specific topics relating to applying for accounting positions. Topics covered in this course are your appearance, networking tips, exploring different accounting careers, meeting your job's expectations, preparing resumes, and interviewing techniques. Each student is required to have one employment interview as part of this course. (Prerequisites: None)

ACCT2821 - Intermediate Accounting I (3 Credits) This is the first of the two course intermediate accounting series. The content of this course covers an overview of the accounting process, the balance sheet, the income statement and statement of cash flows, the time value of money and other various components of the balance sheet. (Prerequisite: ACCT 1810)

ACCT2822 - Intermediate Accounting II (3 Credits) This is the second of the two course intermediate accounting series. The content of the course covers operational assets, investments, current liabilities and contingencies, long-term debt, leases, accounting for income taxes, accounting changes and error corrections and other advanced accounting topics. (Prerequisites: ACCT 2821 or equivalent)

ACCT2827 - Principles of Finance (3 Credits) This course introduces the student to finance concepts for small to medium size businesses. Concepts covered in this course include financial markets, implication of interest rates to business, understanding of financial statements, risk versus return, use of debt financing, use of equity financing, capital budgeting concepts, cost of capital, determining the appropriate financing mix, forecasting techniques, working capital management, and liquid asset management. (Prerequisites: ACCT 1810)

ACCT2847 - Fraud, Auditing and Internal Controls (4 Credits) In this course students will learn about occupational fraud, basic auditing techniques and evaluation of internal controls. Covered topics include how and why fraud is committed, fraud detection, establishing and evaluating internal controls, and using internal auditing techniques to verify account balances. (Prerequisites: ACCT 1810)

ACCT2850 - Accounting Internship (1 - 8 Credits) This course provides students with actual experiences in accounting careers. A competency-based internship plan will be developed for each student. The student can receive internship credit for participating in the Volunteer Income Tax Assistance (VITA) program at SCC in conjunction with the Internal Revenue Service, Minnesota Department of Revenue, and Minnesota Valley Action Council. (Prerequisite: Instructor approval)

ACCT2861 - Cost Accounting I (4 Credits) This course covers managerial accounting cost concepts and behaviors. Examples of job order costing, process costing, and accounting for materials, direct labor, and factory overhead will be discussed. (Prerequisites: ACCT 1810, 1811 with a grade of C or higher)

ACCT2862 - Cost Accounting II (3 Credits) This course is an extension of ACCT 2861. This course covers budgeting, standard costing, direct costing, differential analysis, capital planning, transfer pricing, and decision making under uncertainty. (Prerequisites: ACCT 2861 or equivalent)

ACCT2863 - Fund/NonProfit Accounting (3 Credits) The purpose of this course is to assist students in gaining a knowledge of accounting and financial reporting currently recommended for state and local governmental entities, school

districts, and other not-for-profit organizations. The course will assist the student in developing a knowledge of the accounting differences between governmental and not-for-profit entities and business enterprises. (Prerequisites: ACCT 1810)

ACCT2864 - Income Tax I (4 Credits) The purpose of this course is to expose students to an explanation of Federal and Minnesota individual income tax as it relates to the preparation of the required tax returns. Tax research is also examined in this course. Students will have hands-on experience in preparing Federal and Minnesota income tax returns. (Prerequisites: None)

ACCT2865 - Income Tax II (3 Credits) This course provides an explanation and interpretation of the Internal Revenue Code as applied to sole proprietorships, partnerships, and corporations. Topics include business income, expenses, business tax credits, withholding and payment of established estate and trust tax issues, taxes, installment sales, and inventories. (Prerequisites: ACCT 2864)

ACCT2900 - Accounting Review (3 Credits) This course reviews financial accounting, ethics and professional conduct, business law, taxation and managerial accounting concepts. This course will prepare the student for the ACAT Comprehensive Examination for Accreditations in Accountancy. (Prerequisites: ACCT 1800, 2821, 2861, 2864)

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Course Descriptions

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ADS - Civil Litigation and Criminal Law (Ridgewater College)

ADS1201 - Civil Litigation and Criminal Law (Ridgewater College) (3 Credits) This course covers the legal terminology, procedures, and documents used in the practice of civil litigation and criminal law. Topics include document drafting, legal research and analysis, ethical considerations, and trial preparation.

ADS1202 - Real Estate and Corporate Law (Ridgewater College) (3 Credits) This course covers the legal procedures, documents, and terminology relating to real estate and corporate law. Real estate law includes ownership methods, legal descriptions, transfer and financing documents. Corporate law includes major business ownership structures and the documents and formalities followed in each.

ADS1203 - Family Law and Estate Planning/Probate (Ridgewater College) (3 Credits) This course covers the legal terminology, procedures, and documents used in the practice of family law and estate planning and probate administration. Topics include property and deed drafting and formation of business structures.

ADS1204 - Legal Documentation (Spring odd years only - Ridgewater College) (3 Credits) This course covers the drafting and editing of mailable legal documents and transcription of dictated material using word processing software. Emphasis will be on utilizing legal forms and materials, legal terminology, building accuracy in document keying, editing, and proofreading.

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Course Descriptions

Academic Catalog and Handbook 2024-2025

AFEE - Introduction to Agricultural Education and Extension

AFEE1001 - Introduction to Agricultural Education and Extension (University of Minnesota, Twin Cities) (1 credit Credits) Historical development of the discipline of agricultural education; orientation to career opportunities; areas and expectations of specialization; issues in the field. This course must be completed through the University of Minnesota Twin Cities.

AFEE1002 - Principles of Career Planning for Ag Professionals (University of Minnesota, Twin Cities) (1 credit Credits) Self-assessment and analysis of interests, skills, and abilities. Analyses of occupations, employment potential,

employee expectations for work. Use informational interviews to examine career options and employment portfolio for career planning. This course must be completed through the University of Minnesota Twin Cities.

AFEE2096 - Professional Practicum in Ag Education: Early Experience (University of Minnesota, Twin Cities) (1 credit Credits) Observe schools, extension offices, and agricultural oriented businesses to learn about the work and workplaces in agricultural education. This course must be completed through the University of Minnesota Twin Cities.

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Course Descriptions

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AGBS - Agri-Business

AGBS1100 - Agricultural Selling Skills (3 Credits) This course covers the basic and advanced principles and techniques used in selling agricultural merchandise and services. Agricultural Sales has taken on increased importance in recent years. The introduction of new products and services has magnified the need for technically competent knowledgeable sales personnel. Role-playing and advanced, in-depth sales presentations will be done in class. Students will also be required to make an industry visit and write appropriate letters. (Prerequisites: None)

AGBS2015 - Commercial Driver's License (1 Credit) Students prepare for the Commercial Motor Vehicles General Knowledge (written) Test, related required Endorsements (written) Test(s), related optional Endorsements (written) Test(s), and the Pre-Trip Inspection (skills) Examination. The goal in this course is to obtain a MN Class A CDL permit. (Prerequisites: 18 years of age and a valid MN Class D driver's license).

AGBS2020 - Commercial Driver's License II (1 Credit) This course meets the Federal Entry-Level Driver Training (ELDT) regulations for mandated theory curricula before a CDL permit holder will be allowed to take the pre-trip and behind the wheel driving skills/road tests. Students must earn a minimum overall score of 80 percent on the theory assessment(s) to meet the federal regulation. (Prerequisites: MN Class A CDL permit).

AGBS2150 - Agribusiness Financial Management (4 Credits) This course covers major aspects of agribusiness from financial management through financial problem solving, analysis, and planning. Students will apply economic and financial concepts by creating balance sheets, income statements, cash flows, inventory controls, and budgets. Students will have the opportunity to apply what they have learned in a computerized farm supply business simulation. Students will also develop management skills needed to be an effective agribusiness manager. (Prerequisites: AGEC 1100)

AGBS2990 - International Field Study (3 Credits) This international field study seminar introduces students to agricultural, food, and natural resource systems of other countries of the world. The course consists of two major components: a series of pre- and/or post-departure workshops and an in-depth short-term structured international experience within a host country or countries. Students gain global perspective through exposure to international history, cultures, and socio-economic situations of the country or countries visited. Students explore, compare, and contrast food, fiber, and fuel systems of the country or countries visited. (Prerequisites: None)

AGBS2995 - Individualized Study/Special Problems (1 - 6 Credits) This course allows the student to pursue special projects or areas of interest. The number of credits must be agreed upon by advisor/advisee prior to registration. (Prerequisites: Successful completion of two semesters of training or by special arrangement)

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Course Descriptions

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AGCH - Ag Chemical Applicator Technician

AGCH1100 - Fertilizer Industry Equipment (2 Credits) This course covers all fertilizer application methods. Equipment focus will include airflow, spinner, soilection, liquid application, and injection application systems. Knowledge of equipment, associated systems operation, and maintenance will be learned. Safe operation of this equipment will be emphasized. (Prerequisites: None)

AGCH1200 - Herbicide Industry Equipment (2 Credits) This course covers all herbicide application methods. Equipment will include terragator, rogator, operation and maintenance along with the associated systems. Safe operation of this equipment will be emphasized. Monitors, marking systems, controllers and hydraulic systems will be reviewed. Customer relations between the operator and farmer will be covered. Calculation of product applied and application record keeping is a part of the class. (Prerequisites: Instructor and Agribusiness operator prior approval and a signed agreement)

AGCH1300 - Work Experience - Equipment Operation I (1 - 4 Credits) This course is a cooperative work-study program between SCC and local fertilizer and chemical businesses to allow the students to have on the job experience in the Ag Chemical field. (Prerequisites: Instructor and Agribusiness operator prior approval and a signed agreement.)

AGCH1305 - Work Experience-Equipment Operation II (1 - 4 Credits) This course features a cooperative on the job education program in an agribusiness field. Application of competencies gained from previous course work will be emphasized. Specific tasks to be completed by the student will be identified in an individualized training plan. (Prerequisites: Instructor and Agribusiness operator prior approval and a signed agreement)

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AGEC - Agri-Business

AGEC1100 - Introduction to Agricultural Economics (3 Credits) This course is an introduction to agricultural economics. Economic concepts of the food, fiber, and fuel industry will be explored through problem solving exercises and graphical analysis. Consumer and business behavior will be analyzed under various market and regulatory conditions, with major focus spent on determining changes to equilibrium of aggregate supply and demand curves. Both microeconomic and macroeconomic factors will be defined and discussed in relation to global and local agribusiness value chains, including many factors affecting farmers in the American Midwest. (Prerequisite: None)

AGEC1200 - Principles of Farm Records (3 Credits) This course covers types of records, setup and use of accounts through computerization of farm information. Discussion of the types of record keeping systems will be covered, a review of various record keeping systems and tools used to input, analyze and utilize the information from the farm business activity. Selection and implementation of a record keeping program will be required. Students will initiate records on a current farming operation. (Prerequisite: None)

AGEC2250 - Farm Business Planning & Analysis (4 Credits) This course covers closeout and analysis of a farm accounting problem or the student's own farm business. Also covered will be various analysis techniques, a comparative analysis of all farm production, efficiency and financial factors and a review of current tax management factors. The course will review enterprise, whole farm business and personal expenses in South Central Minnesota region. The course will also cover cash flows, business plans and enterprise budgeting. This course will focus on financial management records and the analysis of each production component of the business. Students will use FinPack software to complete their analysis and to develop business plans for their future business goals. (Prerequisites: AGECE 1200)

AGEC2400 - Commodity Marketing Principles (3 Credits) This course covers the principles of agricultural commodity marketing, including cash, forward, futures, and options contracts. Economic impacts on supply, demand, and equilibrium pricing for commodities will be explored. Students will participate in simulated marketing transactions and track local and terminal market pricing. (Prerequisite: AGECE 1100)

AGEC2450 - Commodity Marketing Strategies (2 Credits) This course covers strategies of commodity marketing of agricultural products. Students will apply marketing principles in various market situations. Students will work with forward contracts, basis contracts, futures contracts, and option strategies in agriculture commodities. Students will develop market plans for agribusiness marketing and input needs. (Prerequisites: AGECE 1100, AGECE 2400)

AGEC2550 - Agribusiness Transfer & Law (3 Credits) This course covers farm estate planning and law topics with direct application to production agriculture. Topics include federal and state estate tax laws and their impact on the transfer of agriculture property. Estate planning options such as wills, life insurance and trusts will be explored. Other topics include farm partnerships and corporations, agricultural legal case studies, basic contracts, legal land descriptions, fence regulations, animal legalities, water rights, bankruptcy, gifting, and liability issues. (Prerequisite: None)

AGEC2650 - Alternative Agriculture and Direct Marketing (3 Credits) One of the changes taking place in agriculture is an increasing interest in the production of alternative crop and animal enterprises. This class will examine and evaluate those enterprises. A look at the profitability, marketing and risks of producing a alternative product as well as the resources and information available to assist in developing a plan to produce an alternative product. The opportunities to produce a

value-added product will be studied. A close look will be taken of producers currently raising and marketing alternative agriculture products. We will also examine the current factors driving the movement towards local foods and alternative enterprises. (Prerequisites: None)

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AGME - Ag Business Mechanics

AGME1801 - Outdoor Power Equipment (3 Credits) This course covers operational theory and service competencies necessary to service small four-stroke cycle engines, two-stroke cycle engines, lawn/garden equipment, and chain saws. Fuel systems, electrical systems, tune-up, drive train adjustment, and attachments are emphasized. (Prerequisites: None)

AGME1812 - Equipment Assembly, Operation, Adjustment and Reconditioning I (2 Credits) This course covers basic tillage and planting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1813 - Equipment Assembly, Operation, Adjustment and Reconditioning II (2 Credits) This course covers basic harvesting equipment. The student will learn all component parts and proper adjustment of units. Machine adjustment may be accomplished on demonstration units, operator manual examples, and actual equipment, or on field trips. In the machinery set-up and reconditioning portion the student identifies set-up and reconditioning procedures, follows the set-up and operator's manual, uses a checksheet, uses a torque chart, learns the procedure for threading and taping, installs heli-coils and keenserts, sharpens drill bits, installs the hydraulic system, follows the hydraulic diagram, assembles machinery, touches up paint, and adjusts the equipment for field use. (Prerequisites: None)

AGME1821 - Precision Measuring Tools (1 Credit) This course covers using precision tools. The student will learn to use micrometers and vernier calipers (English and metric); torque wrenches; small hole and telescoping gauges; dial bore gauges; steel, iron, and wire gauges; feeler gauges; thread pitch gauges and plastigauges. Students will also learn compression testing (gas and diesel), cylinder leakage testing, and radiator cap, thermostat, and antifreeze testing. (Prerequisites: None)

AGME1822 - Gas/Diesel Engine Repair I (3 Credits) This course covers overhauling an engine. Students will rebuild gas and diesel heads. Steps covered include grinding valves, seats, and rocker arms; replacing worn seats and guides; testing springs; and reassembling heads. In addition, students will perform tasks such as engine removal/replacement and disassembly/reassembly; sleeve removal/replacement; and crankshaft, camshaft, sleeve, piston, bearing, and rod measuring. The reassembled engine will be timed, adjusted, and tested on the dynamometer. (Prerequisites: AGME 1821)

AGME1823 - Engine Support Systems and Lab (3 Credits) This course covers cooling, lubrication, and intake/exhaust systems. The student will identify, troubleshoot, and repair each of the systems. The student will also become familiar with special tools necessary to service these systems. The laboratory portion of the class involves overhauling an engine and should be taken in conjunction with AGME1822. Students will increase their understanding and knowledge by applying the materials and procedures learned in Gas/Diesel Engine Repair I. (Prerequisite: AGME 1821)

AGME1831 - Tractor Power Trains (3 Credits) This course includes lecture instruction and laboratory experience in dry clutches, wet clutches, mechanical transmissions, power take-off units, final drives, differentials, brakes, and steering. (Prerequisites: None)

AGME1861 - Tractor Electrical Systems (3 Credits) This course covers the fundamentals of electricity and its application to farm equipment electrical systems. The content includes wiring diagrams, batteries, test equipment, charging systems, cranking systems, ignition systems, and diagnostic service procedures. (Prerequisites: None)

AGME1881 - Parts Department Operation (1 Credit) This course covers the basics in the operation of an agricultural equipment dealership. The major emphasis is the parts department area. A total review of this department will be covered in class. (Prerequisite: None)

AGME1891 - Hydraulic Theory (1 Credit) This course covers basic hydraulic systems used with modern agricultural equipment. This course will focus on the basic principles and the study of hydraulic components that make up the modern hydraulic systems. Students must read and sign the safety eyeglass form required by the state. (Prerequisite: None)

AGME1923 - Gas/Diesel Engine Repair II (4 Credits) This course is designed to assist the students in building their understanding and application of materials and procedures learned in Gas/Diesel Engine Repair I, Power Trains, Electrical Systems, and other mechanical courses. The students will repair customer units. The primary repair work will involve engine overhaul (gas and diesel), clutch, brake, and electrical repairs. Customer units must be completed by the end of the course. (Prerequisites: AGME1821. Students must be enrolled in the Agribusiness Service Technician program)

AGME1930 - Ag Welding (2 Credits) This is an introduction to both electric arc and gas welding. Also included is a short section on the wire welding system. (Prerequisites: None)

AGME2832 - Hydraulic Assist/Hydrostatic Transmissions (2 Credits) This course covers speed change, powershaft, and hydrostatic transmissions. The student identifies transmission operation, traces powerflow, and diagnoses problems. The student performs disassembly, repairing, reassembly, testing, and adjusting of various transmissions. The transmissions covered in the course include John Deere 8 and 16 speed, International Harvester TA, White 3 speed, Case RPS-34, Case-IH Magnum, and Sunstrand/Eaton hydrostatic. (Prerequisites: AGME 1821, AGME 1831)

AGME2841 - Air Conditioning (1 Credit) This course covers the air conditioning system. The student will reclaim, evacuate, charge, test, and diagnose the air conditioning system. Refrigerant identification equipment will be utilized. Compressor seal and head gasket replacement is included. (Prerequisites: None)

AGME2852 - Introduction to Diesel (1 Credit) This course covers an introduction to the diesel system, components, operation, and servicing nozzles. The student will study construction and operation of nozzles, as well as test, clean, repair, adjust, and diagnose multi-orifice and pintle nozzles. (Prerequisites: None)

AGME2853 - Diesel Injection (Pumps) (3 Credits) This course covers the operation, disassembly, repair, and adjustment of injection pumps. Rotary injection pumps covered are the Roosa Master DB, DC, DM2, DM4, and DB2 diesel pumps, the CAV DPA diesel pump, the Robert Bosch VE diesel pump, and the United Technologies Model 100 diesel pump. The Robert Bosch PES inline injection pump with the RSV governor will be included. Students will identify pump operation and component parts; disassemble, repair, and adjust internal parts; reassemble the pump; and perform pump adjustments on the test bench. (Prerequisite: None)

AGME2863 - Advanced Agricultural Electrical/Electronics (2 Credits) This course covers review, troubleshooting, and diagnosis of charging and starting systems. Reading of schematics for all electrical areas are also included. Other areas covered are theory and operation of lighting, warning, accessory, cooling, steering, shifting, and hitch control circuits. Monitoring and control circuits found on planters and combines are included. G.P.S. systems will be touched on with equipment availability. (Prerequisites: AGME 1861)

AGME2882 - Ag Tech Seminar (1 Credit) This course is designed to cover career opportunities, prospective placement, and current technical problems in the Agricultural Mechanics field. Time spent with topic areas may vary. (Prerequisites: None)

AGME2892 - Hydraulic Theory and Diagnosis (4 Credits) This course covers the hydraulic systems found on most agricultural and industrial equipment. The hydraulic diagrams, pumps, open/closed/pfc systems, valve types, electric over hydraulics, and JIC diagrams are presented. The students will identify, test, diagnose, and repair hydraulic systems and components such as control valves, power steering, brakes, pumps, rockshafts, and motors. This course includes use of the flow rator, flow meter, and pressure gauges. (Prerequisites: AGME 1891)

AGME2940 - Agribusiness Service Technician Internship (1 - 9 Credits) This course is a cooperative work-study program between the South Central College Agribusiness Department Service Technicians program and area dealership or industry, which allows the student an employment-like work experience. Application of competencies gained from previous coursework will be emphasized. Specific tasks to be accomplished by the student will be identified in an individualized student training plan. Variable credits 1-9 (Prerequisite: Enrolled in Agribusiness Service Technician Program)

AGME2945 - Tractor/Equipment Repair I (3 Credits) This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisites: AGME 1822, 1823, 1831, 1891, 1923)

AGME2946 - Tractor/Equipment Repair II (4 Credits) This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students perform repair services on customer tractors and school units. (Prerequisite: AGME 2945)

AGME2947 - Tractor/Equipment Diagnosis and Repair (4 Credits) This course provides the student with tractor service shop experience in hydraulics, diesel fuel systems, electrical systems, power trains, air conditioning, and engines. Students will perform repair services on customer tractors and school units and will compare their component repair time with flat rate. If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. (Prerequisites: AGME 2945. Student must be enrolled in the Agribusiness Service Technician program)



AGRI - Agri-Business

AGRI1810 - Intro to Sustainable Microfarming (1 Credit) This class is designed for individuals to enter agribusiness careers related to the growing demand by customers to purchase food produced locally. These operations tend to produce, manage, and market agricultural commodities differently than traditional agriculture models but have a tremendous potential in the new consumer marketplace. Students will be involved in all aspects of operation for a small farm to fork business model. Using a high tunnel as the form of production, this course will follow the growth process of vegetables on a local scale. Students will look at the ability to farm on a small scale, focusing on locally grown crops. They will evaluate the market for and ability to maintain production practices within a microfarming practice. (Prerequisite: None)

AGRI1850 - Employer/Employee Relations (3 Credits) This course covers the principles of supervision and the factors of supervision as they relate to the goals of the business. Supervision problems with practical solutions will be emphasized. Personnel management techniques including determine personnel needs, finding and recruiting people, performance appraisals, training, promotions, legal issues, stress control and terminations will be included. Students will develop an employment portfolio. (Prerequisites: None)

AGRI2700 - Agricultural Technology Seminar (2 Credits) This seminar will provide students the opportunity to self-direct studies in agricultural technology in their areas of interest. Technologies to be considered could include but, are not limited to, plant protection, precision farming, application industries, livestock equipment, bio-technologies, financial resource management, sustainable agriculture, environmental impacts of agriculture, agricultural workforce, and agricultural production. Some organized events will be part of this course. The major emphasis will be self-directed learning. (AGEC 2400 or Instructor Permission)

AGRI2780 - Agribusiness Internship (1 - 9 Credits) This course is a cooperative educational program between the student, faculty and the internship site/business. Students will apply competencies gained from previous coursework into an agribusiness industry workplace. Specific tasks to be completed by the student and will be identified in an individual training plan developed by the student, faculty and internship supervisor. Each training plan is specific to the individual student and business enterprise where the student is employed. (Prerequisite: Instructor Permission)



AIS - American Indian Studies

AIS112 - Native American Perspectives (4 Credits) Native American Perspectives introduces students to writings about Native American life. Students will become acquainted with some myths and legends as well as contemporary literature. Students will also explore Native American culture, with a special emphasis on the environmental impacts of colonization. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5 - Hist/Soc/Behav Sci, MNTC 10 - People/Environment)

AIS120 - Dakota Culture, History and Language (3 Credits) This course is an introduction to the language, history and culture of the Dakota nation. Students will gain cultural, historical, and sociological knowledge and understanding of the Dakota nation through readings, lectures, guest speakers, and media. Students will learn some basic Dakota language skills. Students will be encouraged to engage critically on historical and contemporary issues and be inspired towards activism as they participate in service learning opportunities within the Native population. Various outside resources will be brought in to explore the Dakota language. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ

0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7: Human Diversity and 9: Ethical and Civic Responsibility)

AIS130 - Indigenous Cuisine and Culture (3 Credits) In this course, students will explore the many facets of American indigenous cuisine. This will include historical concepts that impact indigenous food resources such as the forced removal of many tribes from their original landscapes, to government food rationing on reservations as well as within the boarding school system. The course will explore traditional and current indigenous practices of environmental sustainability. Lastly, students will gain an understanding of food sovereignty, both its meaning and its ties to a political/cultural movement. Students will also have the opportunity to prepare and partake in some indigenous cuisine. (MnTC Goal Areas: Goal Area 7 - Human Diversity and Goal Area 9 - Ethical and Civic Responsibility)

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ANSC - Agri-Business

ANSC1100 - Livestock Production Principles (3 Credits) This course covers animal production history and economic impact, breed development, animal anatomy and physiology, animal product features, gland and hormone functions, growth and lactation physiology, environmental animal production factors, and animal research. Course will focus on disease prevention and the means required to promote productive livestock production. Some time will be spent on analyzing specific diseases, describing symptoms, and treatment. (Prerequisites: None)

ANSC1105 - Beef Production Management (3 Credits) This course covers topics current to the beef industry as a productive enterprise, including beef and dairy-beef feedlot and cow-calf operations. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers and beef industry publications. (Prerequisites: None)

ANSC1200 - Livestock Lab (2 Credits) This course is designed to teach the fundamental principles of livestock genetics in a practical manner. The course deals with the physiology of reproduction and application of genetics for improvement of the livestock herd. Livestock selection materials and methods of live animal and carcass evaluation will be conducted. Subjective and objective evaluation methods and measurements will be included. (Prerequisites: None)

ANSC1205 - Ruminant Animal Production (3 Credits) Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)

ANSC1305 - Cattle Artificial Insemination (1 Credit) This course covers a study of the techniques and equipment necessary for the artificial insemination in cattle. Principles involved in heat selection, bull selection, semen collection and storage, semen evaluation, insemination, record keeping, mating appraisal, and cleanup procedures will all be addressed in this course. (Prerequisites: None)

ANSC2100 - Principles of Animal Nutrition (3 Credits) This course provides basic information about the fundamentals of nutrition and the essential nutritional requirements of livestock. Units of instruction will include: nutrients and digestion, evaluating feedstuffs, characteristics of feedstuffs, processing techniques of various feeds, feed formulations, commercial feeds and feed additives. This course includes the discussion of the feeding practices of swine, cattle, poultry, and equine. (Prerequisites: None)

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ARCH - Architectural Drafting

ARCH1100 - Introduction to Architectural Drafting and Design (1 Credit) An overview of academic preparation and career opportunities in the fields of Architecture, Engineering and Construction as they pertain to the role of technical drafting, construction document production, architectural marketing and building product manufacturing.

ARCH1101 - Studio 1 (4 Credits) An introductory studio course developing a set of working drawings for a residential construction project. Course topics include the history of drafting, drafting views, basic drafting techniques, measuring, residential terminology, basic document production and best practices. Emphasis on document production for wood-frame construction and the application of Computer Aided Drafting (CAD) software into the design process. This course advances to explore multi-family construction concepts, design considerations and code implications. An examination of the coordination and drafting of civil engineering information for residential design is included. (Prerequisites: None)

ARCH1102 - AutoCAD Architecture (2 Credits) This introductory Computer Aided Drafting (CAD) course explores AutoCAD Architecture beginning with basic AutoCAD tools and advancing to AutoCAD Architecture tools. CAD management concepts and exploring AutoCAD Architecture 3D are included. (Prerequisites: None)

ARCH1103 - Materials & Methods 1 (2 Credits) An exploration of building materials used in commercial and residential construction. Common building materials such as wood, masonry, concrete, and metals will be examined. Basic building methods such as foundation systems, framing systems, and windows-door systems are analyzed. Introduction to architectural detail drafting and software detail component libraries are included. (Prerequisites: None)

ARCH1104 - Construction Documents (2 Credits) This course provides an overview of the documents used in Architecture, Engineering, and Construction. Discussion topics include the design process, phases of design, contract terminology and CSI (Construction Specifications Institute) Divisions. Emphasis on examining the industry standards used in all aspects of document production. An exploration of estimating for budget using principles of quantity takeoffs and computation of materials is included.

ARCH1201 - Studio 2 (4 Credits) An introductory studio course developing a set of working drawings for a light commercial construction project. Course topics include commercial construction principles, commercial terminology, document management, advanced document production and best practices. Emphasis on document production for steel-frame construction and the application of Computer Aided Drafting (CAD) and Building Information Modeling (BIM) software into the design process. An introduction to the incorporation of state and local building code as they pertain to architectural design is included. (Prerequisite: ARCH 1101) (Co-Requisites: ARCH 1202 and ARCH 1203)

ARCH1202 - Revit 1 Fundamentals (2 Credits) Introductory Building Information Modeling (BIM) course that explores Revit for Architecture. An in-depth practice of basic Revit tools as they pertain to modeling basics, drafting views, detail creation, construction documentation, and renderings. A strong emphasis on industry standards and best practice for BIM. (Prerequisites: ARCH 1101) (Co-requisite: ARCH 1201)

ARCH1203 - Materials & Methods 2 (2 Credits) A continued exploration of building assemblies used in construction. Common building methods such as concrete, structural steel, light-gauge steel framing, and membrane roofing are examined. Commercial applications of fabricated stair/railings and elevator systems are analyzed. A strong emphasis on architectural detail drafting and full utilization of software detail component libraries. Coordination and drafting of civil engineering information for commercial architecture is also included. (Prerequisite: ARCH 1103) (Co-Requisite: ARCH 1201)

ARCH1204 - Building Codes (2 Credits) An exploration of state and local building codes as they relate to the residential and commercial building sector. Students will develop an understanding of the current Minnesota Building Code (IBC), Minnesota Residential Code (IRC), Minnesota Accessibility Code (ADA), and Minnesota Energy Code. Emphasis on the process of analyzing and applying the building code for architectural design and document production. (Prerequisites: None)

ARCH1301 - Studio 3 (4 Credits) An advanced studio course developing a coordinated set of working drawings for a heavy commercial construction project. This course will advance students' knowledge of commercial construction principles, the applications of architectural and engineering systems, and the scheduling/management of construction document preparation. The research/incorporation of applicable codes shall be major factors in developing this set of construction documents. A progression to advanced Building Information Modeling (BIM) strategies will be incorporated. Emphasis on critical thinking, problem solving, and software application. (Prerequisite: ARCH 1201)

ARCH1302 - Revit 2 BIM Management (2 Credits) Intermediate building information modeling (BIM) course that expands on Revit for Architecture. Focus on establishing company standards and an in-depth practice of template creation. Deep exploration of Revit families, custom family creation, and the practice of creating parametric entities. Discussion of online Revit content resources is also included. (Prerequisite: ARCH 1202)

ARCH1303 - MEP Integration (2 Credits) This course reviews the examination of mechanical, plumbing and electrical systems in both residential and commercial buildings. Content includes analysis of plumbing and heating, ventilation and air conditioning (HVAC) systems, and power and lighting systems. The interrelationship of architecture and the engineering functions is explored.

ARCH1304 - Construction Administration (2 Credits) This course provides an overview of the processes of managing, updating, and altering construction documents used during the construction phase of a project. Topics include documenting as-built construction, processing redlines, request for information, addendums, and change orders. Also covered is an introduction to shop drawings and drafting for the manufacturer of architectural building products.

ARCH1401 - Studio 4 (4 Credits) This advanced studio course guides students in the development of a set of working drawings for a commercial construction project while challenging students to manage a project workload from concept to completion. This course will advance students' knowledge of construction materials and methods and the preparation of construction details through analytical exercises of architectural detail vignettes. A progression to resourceful problem-solving of the Building Information Modeling (BIM) software will be incorporated. Emphasis on independent work, time management strategies, and the completion of deadline-driven tasks. An exploration of current events and the Architecture and Engineering Industry is also included.

ARCH1402 - Architectural Visualization (Elective Option 1) (3 Credits) Introduce advanced BIM software applications as they pertain to 3D visualization. Explore alternate software for enhanced architectural rendering and imaging. An emphasis on modeling for conceptual design, architectural marketing, and 3D animations. An inquiry into emerging industry visualization technology is included.

ARCH1403 - Capstone Project (Elective Option 2) (3 Credits) Students will outline, design, and execute a project of their own choosing. Students are encouraged to pursue a project that will enhance a specialty of their particular interest. Developing a skill that will be marketable to future employers. Sample Projects include: explore a "new" software application, a real world residential, explore 3D printing for architecture, a real world conceptual design project, 3D scanning for BIM import, industry interview/video series, etc.

ARCH1404 - Statics and Strengths of Materials (3 Credits) This course covers an introduction to structural theory and calculation. It includes analysis of forces, vectors, calculations of forces, moments and internal stresses and strains in structural materials. It also includes tracing of load paths through the structure. (Prerequisites: MATH 125, ARCH 1301)

ARCH1500 - Construction Experience (1 Credit) Develop an understanding of the construction environment as it pertains to building assembly and the construction process. This course inspires students to explore opportunities within the diverse construction industry under the guidance and approval of the course instructor. (Prerequisite: None)

ARCH1501 - Internship (3 Credits) This course is applying acquired program knowledge in the workplace. Students are responsible for finding an appropriate program related job. (Prerequisites: ARCH 1101 and ARCH 1201)

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Course Descriptions

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ART - Art Studies

ART100 - Art Appreciation (3 Credits) Art Appreciation is the historical and topical study of art and its relationship to culture and society. This course incorporates the extensive use of visual materials to teach the essentials and aesthetics of art, civilization, and daily life. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ART105 - Art Foundations (3 Credits) Art Foundations is a course designed to introduce students to the materials, processes, and concepts of two-dimensional art-making. Through hands-on experience, students will learn to compose the elements of design (line, shape, texture, value, color, and space) according to the principles of organization (balance, emphasis, rhythm, scale and proportion, and unity). Creativity, experimentation, visual problem-solving, and the analysis of imagery are emphasized. (Prerequisites: None). (MNTC 6: Humanities and Fine Arts).

ART130 - Painting (3 Credits) Painting is an introductory studio course in the elements of traditional and contemporary oil painting. Students will explore and discuss the various techniques and methods basic to the creation of paintings. Students will participate in the discussions and critiques of traditional and contemporary paintings and explore the creative process via the medium of oil paint. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART135 - Introduction to Watercolor (3 Credits) This course is an introduction to Watercolor and the various ways it can be used as a creative tool for aesthetic and conceptual understanding. Students will expand their skills in compositional design through the study and practice of the Elements of Art and the Principles of Organization: Line, Shape, Texture,

Value, Color, Space, Balance, Emphasis, Rhythm, Scale/Proportion and Unity. Also examined and practiced in class are the painting techniques of watercolor, including the preservation of whites, transparencies, bleeds, dropping color, wet on wet technique, drybrush and lifting. Through lectures and visual references, historical and contemporary examples of watercolor will be explored and analyzed to expand students understanding of fine art and their own work within this context. In addition, students will learn how to discuss, analyze and evaluate their own work as well as the work of their peers, through class discussions and critiques. Additional learner supplies will be required for this course. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART140 - Digital Photography (3 Credits) Introduction to the conceptual, technical and historical aspects of photography as a creative medium using digital technology within the fine arts context. Students study camera operation and techniques, composition and design, digital image capture, related software, and digital output. This class also utilizes the computer as a digital darkroom to enhance photographic images. Projects provide students with an understanding of how photographs function, not only technically, but also visually and conceptually. Students must have a digital camera; (variable F. Stop, and shutter recommended) Textbook and other supplies will also be required. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART145 - Mixed-Media (3 Credits) This course engages students in a three-dimensional art making experience that draws from a variety of studio practices. Students will participate in artistic endeavors involving traditional and non-traditional materials, techniques and concepts. Emphasis is placed upon the development of aesthetic, conceptual and technical skills to further personal artistic evolution. (Prerequisite: none.) (MNTC 6: The Humanities--The Arts, Literature and Philosophy)

ART150 - Drawing I (3 Credits) This drawing course will further the students' understanding of the core elements of drawing: line, composition, perspective, proportion, texture, value, and shading. These drawing elements will be taught through both traditional and modern methods. The course will also include several short lectures to give examples of the work, and to expand art appreciation. There will be a strong emphasis on the student's ability to critique their own work along with their peers. The dialogue within the classroom will help to expand the student's skills and process. (Prerequisites: None) (MNTC 6: Humanities and Fine Arts)

ART170 - Digital Video Production (3 Credits) This course introduces students to the fundamentals of digital video production. Students will learn how to produce digital video productions utilizing story-boarding, lighting and shooting techniques. Students will use video and audio editing software to import, assemble and edit clips, add transitions, create super-impositions and titles in finished video productions. In addition, they will learn hardware set-up, capturing techniques and video compression schemes as they output their work to various video formats. The course also examines the history and application of video in contemporary art, documentary, film and television production. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ART201 - Art History I (3 Credits) This course provides an overview of visual culture from prehistory through the Middle Ages, including art and architecture from both Western and non-Western cultures. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART202 - Art History II (3 Credits) This course provides an overview of visual culture, including art and architecture, from the Middle Ages to the present time. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ART240 - Digital Photography 2 (3 Credits) This course will introduce the student to both the practical and theoretical application of controlling the digital photographer's most important tool, light. The course will deal with, through the use of light modifying devices and software, how to control the direction, quantity, quality, ratio and color of light for both outdoor (natural) and indoor (existing) light. Students enrolled in this course will study advanced lighting techniques, contemporary practices and theories in digital photography. Students will work with intermediate and advanced digital imaging software. This course will emphasize the student's development of individual artistic voice applied in a portfolio of digital photographic images. Students enrolling in this course are required to supply their own digital camera, tripod, image editing software, and lighting equipment as specified in the course syllabus. Image editing software will also be available for use in the open computer lab at South Central College's North Mankato campus. (Prerequisite: ART 140 or instructor approval) (MNTC 6: Humanities and Fine Arts)

ART250 - Drawing II (3 Credits) This course builds upon the concepts of Drawing I (ART 150). Students will further their understanding of drawing issues by creating artwork that explores process, personal imagery, formal analysis, and conceptual goals. Historical and contemporary models will continue to be explored and discussed relative to the students' own artwork. (Prerequisite: ART 150) (MNTC 6: The Humanities--The Arts, Literature and Philosophy)

ART270 - Digital Video Production 2 (3 Credits) This course covers advanced digital video techniques including scripting, lighting, shooting, editing and the overall video/audio production sequence. Students will develop advanced skills for any profession that involves video production such as television, documentation, filmmaking, contemporary art, web design, multimedia communication, animation and computer gaming. Students will use advanced non-linear video and

audio editing software. Final project is a video series or single production of substantial length within the field of artistic, commercial and/or documentary video. Students will examine and utilize advanced application of cinematic philosophy, production techniques and technologies in the fields of film, videography, documentary production, and multimedia. This course also covers the current visual culture and how it applies to a digital cinematic/video production. Students will participate as a member of a production crew on college productions when available. (Prerequisite: a grade of C or higher in ART 170 or instructor permission) (MNTC 6: Humanities and Fine Arts)

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Course Descriptions

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ASL - American Sign Language

ASL101 - American Sign Language 1 (3 Credits) This course teaches the basics of American Sign Language. (Prerequisites: None) (MNTC 7: Human Diversity)

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Course Descriptions

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AST - Auto Service Technology

AST1112 - Introduction to Auto Service (2 Credits) This course is a requirement for the Automotive Service program. The course includes the following topics: shop safety, shop practices and procedures, vehicle identification, use of electronic service information, proper use of hand tools, power tools, hoists and other shop equipment, fasteners, tires, and fluids. (Prerequisite: Admission to the Automotive Service program)

AST1121 - Service Management (1 Credit) This course is designed for individuals who will be responsible for the operation of an automotive repair facility. It provides instruction in customer service, parts and service marketing, shop management, and business ethics in the automotive repair field. (Prerequisite: Admission into the Automotive Service program)

AST1130 - Introduction to Hybrid Electric Vehicles (1 Credit) The course introduces the fundamentals of hybrid electric vehicles. The course includes hybrid vehicle classifications, high voltage safety, vehicle systems, components, operation, and basic diagnosis. (Prerequisite: Admission to the Automotive Service Program).

AST1212 - Basic Electrical (2 Credits) This course covers the fundamentals of electricity. The battery, DC electrical circuits, circuit components, wiring diagrams, digital multimeter use, Ohm's law, Watt's law, and circuit testing will be presented in this course. (Prerequisite: Admission to the Automotive Service program)

AST1222 - Advanced Electrical/Electronics (2 Credits) This course covers the operation and diagnosis of relays, motors, lighting systems, gauges, windshield wiper systems, power windows, power locks, solid state electronic components, and other automotive electrical systems. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST1233 - Starting and Charging Systems (3 Credits) This course covers the operation and diagnosis of the starting and charging systems. Instruction in component identification and operation, circuit diagnosis, and component testing will be included. (Prerequisite: Admission to the Automotive Service Program)

AST1311 - Engine Diagnosis (1 Credit) This course covers engine diagnosis using various types of test equipment. This course focuses on developing the skills needed to diagnose and analyze basic engine problems. Prior knowledge gained by the successful completion of AST 1712 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1323 - Lower Engine Service (3 Credits) This course covers the theory of engine operation and construction, parts identification, measurements, and engine wear locations. Determining the service procedures an engine will require and the reconditioning of all lower engine components are included in this course. Prior knowledge gained by the successful

completion of AST 1311 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1332 - Upper Engine Service (2 Credits) This course covers testing and rebuilding the cylinder head. The student will analyze cylinder compression and leakage to determine if valve and valve seat service is necessary. Hands-on experience consists of valve refacing, valve guide service, valve seat reconditioning, valve spring testing, shim selection, and proper assembly and installation. Prior knowledge gained by the successful completion of AST 1311 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1341 - Engine Lab (1 Credit) This course is designed to allow students enrolled in the engine services sequence of courses, time to complete the assigned projects. Prior knowledge gained by the successful completion of AST 1323 and AST 1332 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1412 - Clutch & Drive Line (2 Credits) This course covers standard automotive and light truck clutches. Content includes design, adjustment, overhaul, diagnosis, and repair. Also included are mechanical and hydraulic systems. The drive line section includes phasing, alignment and balance. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1423 - Manual Transmission/Transaxle & 4X4 (3 Credits) This course covers the operation and the proper repair procedures for the types of manual transmissions/transaxles and transfer cases used in late model vehicles. Four wheel drive, locking hubs, axle disconnects, AWD, full-time, and part-time four-wheel drive systems will also be covered. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1513 - Suspension/Steering & Wheel Alignment (3 Credits) This course covers front and rear suspension systems, wheel balance, and steering systems and components. Students will be required to perform a front and rear wheel alignment. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1613 - Brakes (3 Credits) This course will cover the principles of friction and braking systems, disc and drum brakes, parking brakes, and power assist units. Emphasis will be placed on system operation, diagnosis, repair, and maintenance of various types of braking systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1622 - Advanced Brakes (2 Credits) This course will cover anti-lock brake systems. Emphasis will be placed on system operation and controls. Diagnosis, repair, and maintenance of the various types of systems will also be included. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST1712 - Basic Tune-up (Non-computer) (2 Credits) This course covers the theory and principles of operation of automotive gasoline engines, fuel systems, ignition systems, and emission systems. Prior knowledge gained by the successful completion of AST 1212 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST1714 - Introduction to Engine Operation (2 Credits) This course covers the theory of operation, basic diagnosis, and maintenance of the automotive gasoline engine, fuel system, ignition system, and emission system. Prior knowledge gained by the successful completion of AST1212 is recommended for student success in this course. (Prerequisite: Admission to the Automotive Service program)

AST2432 - Rear Axle/Differential (2 Credits) This course will cover the operation and proper repair procedures of current differentials used on late model vehicles. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2442 - Automatic Transmission I (2 Credits) This course covers how an automatic transmission works, the basic parts, functions, and power flow of the hydraulic circuits. This course also includes the basic theory of torque converters, planetary gears, clutches, bands, and hydraulic circuit operation. Prior knowledge gained by successful completion of AST 1112 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2452 - Automatic Transmission II (2 Credits) This course is a hands-on lab class in which various transmissions and transaxles are overhauled, adjusted, and bench tested. Basic overhaul techniques and special tool and gauge usage are included. Prior knowledge gained by successful completion of AST 1112 and AST 2442 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2462 - Automatic Transmission III (2 Credits) The student, after completing this course, will have a basic understanding of troubleshooting, repairs, and adjustments of conventional and electronic shift automatic transmissions. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2723 - Fuel Systems I (3 Credits) This course covers the principles of operation of the various types of automotive fuel systems. Fuel system component identification, operation, and testing is included in this course. Gasoline fuel system diagnosis and repair will be emphasized. (Prerequisite: Admission into the Automotive Service program)

AST2733 - Introduction to Automotive Computers (3 Credits) This course covers the operating principles and testing of automotive computers, sensors, and control devices. (Prerequisite: Admission to the Automotive Service program)

AST2743 - Fuel Systems II (3 Credits) This course covers fuel injection and emissions systems used with gasoline engines. This course focuses on the operation, diagnosis, and repair of automotive fuel injection and emissions systems. (Prerequisite: Admission to the Automotive Service program)

AST2752 - Engine Performance & Drivability (2 Credits) This course emphasizes the accurate and efficient diagnosis and repair of drivability and emission concerns associated with all aspects of engine operation. Particular attention will be placed on computerized engine management systems. (Prerequisite: Admission into the Automotive Service program)

AST2812 - Basic Air Conditioning (2 Credits) This course covers the principles of air conditioning. Various system types, malfunction diagnosis, testing, and repair are studied in the classroom. Practical work such as component replacement, charging, and performance testing will be on actual systems. (Prerequisite: Admission into the Automotive Service program and AST1112 or instructor approval)

AST2822 - Advanced Heating and Air Conditioning (2 Credits) This course covers automatic temperature control systems operation, testing and repairs of vacuum and electrical controls, air flow distribution, and heater system controls. (Prerequisites: Admission into the Automotive Service program and AST 2812 or instructor approval)

AST2911 - Auto Lab I (1 Credit) This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST2921 - Auto Lab II (1 Credit) This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. (Prerequisite: Admission to the Automotive Service Program)

AST2931 - Auto Lab III (1 Credit) This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by successful completion of AST 1112 is required for student success in this class. (Prerequisite: Admission into the Automotive Service program)

AST2941 - Auto Lab IV (1 Credit) This course is designed to provide students an opportunity to develop practical automotive repair skills. Auto Lab provides the student shop time to complete projects and lab assignments required in the Automotive Service program. This is a hands-on, performance based course where students work on diagnosing, maintaining and repairing vehicles. Prior knowledge gained by the successful completion of AST 1112 or concurrent enrollment in AST 1112 is required for student success in this course. (Prerequisite: Admission into the Automotive Service program)

AST2951 - Individualized Study (1 - 8 Credits) This course allows the student to design a program of study geared toward individual need and special interest. The student will specialize in developing skills and competencies in selected areas. (Prerequisites: Instructor approval)

AST2961 - Cooperative Occupational Experience (1 - 8 Credits) Students will work in a sponsoring automotive service facility. The tasks and activities must be consistent with prior course work. The work schedule will be determined on a case-by-case basis. (Prerequisites: The student must be in the second year of the program and instructor approval is required. Credits are variable up to a maximum of 8)

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BDET - Architectural Drafting & Design

BDET1100 - Introduction to Building Design and Energy Technology (1 Credit) Overview of academic preparation and career opportunities in the field of: Architectural, Mechanical-Electrical-Plumbing (MEP), structural, building design and energy technology. (Prerequisite: None)

BDET1110 - Studio I (4 Credits) This is an introductory studio course for students interested in Building Design and Energy Technology. Studio I includes a combination of sketching and electronic drawing software applications. This course will cover, sketching techniques, dimensions, notations, organization, and measuring. This class advances into drawing a commercial wood-frame construction project while incorporating electronic drawing software into the design process. (Prerequisite: None)

BDET1120 - Estimating Concepts (2 Credits) This course covers principles of quantity takeoffs, identification of symbols, and computation of materials from a set of commercial construction working drawings utilizing the CSI divisions. (Prerequisite: None)

BDET1130 - Materials and Methods (3 Credits) The basic construction methods and materials used in building technologies are examined. Common building materials such as wood, masonry, concrete, and metals will be analyzed as it relates to commercial applications. The classification of materials and project delivery systems; application of principles of building science to construction sites; relationship between technology and sustainability will be addressed. (Prerequisite: None)

BDET1150 - AutoCAD (2 Credits) This is an introductory 2D computer-aided drafting course that takes a practical hands-on approach to the use, operations, and methods of AutoCAD. It includes the following: drafting, line types, line widths, accuracy, and dimensioning, editing, drawing setup, scaling, and plotting. (Prerequisite: None)

BDET1210 - Studio II (4 Credits) This course covers the materials, methods, and construction principles of a commercial project. Electronic drawing software and hand drawing will be utilized. Independent work, critical thinking, problem solving, and application are emphasized. A set of working drawings will be drawn incorporating construction documents. (Prerequisites: BDET 1110, 1150)

BDET1220 - Building Analyst (3 Credits) This course will provide an understanding of technical standards for home performance and weatherization retrofit. The course will provide an introduction to building performance as it relates to the residential sector. The student will be introduced to the building shell components, combustion zone and blower door testing. In addition, the student will be aware of the auditing process and customer relations. This course will follow the Building Performance Institute (BPI) standards and content for building analyst and envelop professional. (Prerequisites: BDET 1110, 1130)

BDET1230 - Materials and Methods II (3 Credits) Construction methods and materials utilized in building technologies will be examined in detail. Building materials such as wood, masonry, concrete, and metals will be analyzed as it relates to commercial applications. This application will be by a single building material and/or as an assembly (e.g. wall section). The classification of materials and project delivery systems; application of principles of building science to construction sites; relationship between technology and sustainability will also be addressed. (Prerequisites: BDET 1130)

BDET1240 - Construction Documents (2 Credits) This course provides an overview of construction documents including working drawings, specifications, and other contract documents. Emphasis on the development of project manual, legal and ethical aspects, and divisions of work. (Prerequisites: BDET 1110)

BDET1250 - Revit (2 Credits) This is an introductory 3D computer-aided course that takes a practical hands-on approach to the use, operations, and methods of Revit. It includes the following: detailing and drafting views, construction documentation, and the basics of building modeling. (Prerequisites: BDET 1110, 1150)

BDET1260 - Special Topics in Environmental Design (1 Credit) This course will provide an understanding of addressing surrounding environmental parameters. These parameters may result when devising plans, programs, policies, buildings or products. The course will also provide an introduction to the human-designed environment. This introduction will relate to interdisciplinary areas such as architecture, urban planning, and product design and sustainability issues. (Prerequisite: BDET 1110)

BDET1320 - Internship (3 Credits) This course covers applying classroom knowledge to the workplace. Students are responsible for finding an appropriate program related job. Course requirements will be adapted to the type of work performed by the student. (Prerequisites: BDET 2210, Advisor approval)

BDET2110 - Studio III (4 Credits) Building Information Modeling (BIM) will be incorporated. Construction methods & materials, LEED principles, design process, preparation of details, research, and incorporation of applicable codes and ordinances shall be major factors in developing this coordinated set of working drawings. The International Building Code (IBC) and the American Disability Act (ADA) will be determining factors in this commercial project. This class will continue to further the students knowledge of construction, materials, and applications of various architectural and engineering design principles. (Prerequisites: BDET 1210)

BDET2120 - Statics and Strengths of Materials (3 Credits) This course covers an introduction to structural theory and calculation. It includes analysis of forces, vectors, calculations of forces, moments and internal stresses and strains in structural materials. It also includes tracing of load paths through the structure. (Prerequisites: MATH 125, BDET 1210)

BDET2130 - MEP Systems (Mechanical, Electrical and Plumbing) (3 Credits) This course provides students with a fundamental knowledge of Mechanical, Electrical, and Plumbing systems. HVAC, lighting, plumbing, and communication

systems will be analyzed in reference to their impact on commercial design, space planning, construction cost, and sustainable design. (Prerequisites BDET 1210)

BDET2140 - Building Codes (2 Credits) The course will involve the current International Building Code (IBC), Chapter 1341 Minnesota Accessibility Code, International Residential Code, and Minnesota Energy Code. This class will address the understanding of the building codes as they relate to the residential and commercial sector. (Prerequisite: BDET 1210)

BDET2150 - Revit II (3 Credits) This course enables students to expand their knowledge in setting up office standards with templates that include annotation styles, preset views, sheets and schedules as well as creating custom systems, in-place and component families. (Prerequisite: BDET 1250)

BDET2210 - Studio IV (6 Credits) This capstone course will advance the students knowledge of commercial building design. Building Information Modeling (BIM) will be incorporated. CAD skills, construction methods & materials, preparation of details, research, and incorporation of applicable codes and ordinances shall be major factors in developing this coordinated set of working drawings. The International Building Code (IBC) and the American Disability Act (ADA) will be determining factors in this commercial project. This class will continue to further the students knowledge of construction, materials, and applications of architectural and engineering disciplines as they pertain to the construction of a commercial project. (Prerequisites: BDET 2110)

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Course Descriptions

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BIOL - Biology

BIOL100 - Introduction to Biology (4 Credits) Introduction to Biology familiarizes students with fundamental biological principles and processes occurring within our natural world. This course engages students in the methodology and practice of scientific investigation, and emphasizes molecular and cellular processes, systems of the human body, and human impact on the environment. Discussions of organisms are framed by the sciences of ecology and evolution with a focus on the relationship between biological structure and function. Lecture and a 2 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL101 - Introduction to Ecology (4 Credits) Introduction to Ecology introduces the student to fundamental principles of ecology while focusing on interactions occurring at all of its levels. Students will become familiar with interrelationships between biotic and abiotic components of the natural world, investigate population, community, and ecosystem structures and dynamics, and gain knowledge of human impact on the environment. Lecture and a 3 hour lab are included. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People and the Environment)

BIOL115 - General Biology I (4 Credits) This course covers biological processes at the cellular and molecular level. It serves as an introduction to macromolecules and metabolism, cell biology, Mendelian genetics, and gene expression. This course involves a weekly three hour lab. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC Area 3)

BIOL116 - General Biology II (4 Credits) This course covers biology at the organismal, population and system level. It will emphasize organismal diversity, population and community ecology and ecosystems. Students will gain an understanding of how evolutionary advances have occurred among populations due to natural selection. This course involves a weekly three hour lab. (Prerequisites: Next-Generation Accuplacer score of 250 or above, or Classic Accuplacer Reading score of 78 or higher, or either ENGL 0090 or EAP 0095 or READ 0095 with a C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher AND a Next-Generation Accuplacer QAS score of 237 or higher or Classic Accuplacer College Level Math score of 50 or higher, or either MATH 0085 or MATH 0095 with a C (2.0) or higher.) (MNTC area 3)

BIOL162 - Human Biology (4 Credits) This one-semester course is an introduction to the biology of the human body. Basic form and function of the body systems and their interactions will be emphasized. Other topics include: terminology, basic chemistry, cell biology genetics, molecular biology and nutrition as it relates to the human body. This course contains

a laboratory portion. (Minnesota Transfer Curriculum goal area 3) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3: Natural Sciences)

BIOL211 - Genetics (4 Credits) This is an introductory Genetics course which covers the study of biologically inherited traits. It will emphasize Mendelian genetics as well as molecular genetics. Students will explore classical, population, and molecular genetics. Students will learn genetics through lecture, solving genetics problems, and demonstrating concepts from lecture through laboratory experimentation. (Prerequisites: BIOL 115. BIOL 116 is strongly recommended) (MNTC Goal Area 3)

BIOL215 - General Ecology (4 Credits) This course examines interrelationships between organisms and their environment, with an emphasis on population, community and ecosystem dynamics. Ecological research methods are applied through hands-on activities in lab and in the field. While basic ecology is the focus, relationships between ecological research and current environmental issues will also be addressed. This course includes outdoor data collection and off-campus field trips. MNTC Goal Areas 3 and 10. (Prerequisites: BIOL 116)

BIOL220 - Human Anatomy (4 Credits) This course takes an in-depth look at the anatomy of the human body systems. The course emphasizes structure and anatomical function at the cellular, tissue, organ and systemic level. Dysfunctions are included but the body in homeostasis is emphasized. This course includes a weekly three hour lab. Some labs include dissection. (Prerequisite: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Area 3)

BIOL230 - Human Physiology (4 Credits) This course provides an in-depth study of the functioning of most body systems, including muscle, nervous, cardiovascular, respiratory, digestive, urinary, and endocrine systems at both the cellular and systemic level. An emphasis is placed on normal physiology, but dysfunction will also be discussed. This course contains a weekly 3 hour laboratory component. (Prerequisites: BIOL 220 with a grade of C or better and CHEM 108, CHEM 110 or CHEM 120 with a grade of C or better) (MNTC Goal Area 3)

BIOL240 - Pathophysiology (3 Credits) This course provides an in-depth study of the chemical, biological and psychological process involved with alterations of health, using systemic and non-systemic approaches. Through case studies, students will test theories taught in class by reading background information about patients, forming possible diagnosis, deciding what tests to run, analyzing data and forming conclusions about the patients conditions. They will then justify possible treatments. (Prerequisite: Completion of BIOL 230 with a grade of C or better.) (MNTC 3: Natural Sciences)

BIOL250 - Biology Capstone (2 Credits) Biology Capstone is a course that is required before completion of an AS degree in Biology. It is a project based course in which students will demonstrate a culmination of the skills developed while at South Central College. The student enrolled in this course will complete a scientific research project and present the findings by writing a research paper and giving a poster presentation. In addition, students may be required to participate in all assessment activities as directed by the instructor and the Biology program. This course should be taken during the last semester before completion of an A.S. degree in Biology. (Prerequisite: Instructor permission)

BIOL270 - Microbiology (4 Credits) This course is an introduction to the general principles and methods used in the study of microorganisms. It includes a survey of prokaryotic and eukaryotic microorganisms emphasizing bacteria and viruses. Topics include microbial cell structure and function, metabolism, microbial genetics, and the role of microorganisms in disease, immunity and other selected applied areas. Laboratory techniques include isolating, culturing and identifying microorganisms. This course contains a three hour per week laboratory component. (Prerequisites: A grade of C or higher in BIOL115 OR BIOL225 OR BIOL220 AND CHEM108 OR CHEM110 OR CHEM 120) (MNTC Goal Area 3)

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CAP - Capstone

CAP250 - Associate of Arts Capstone Class (1 Credit) This course should be taken by students seeking the Associates of Arts degree during their final semester at SCC. It assesses fulfillment of the program's Learning Outcomes (Communication, Critical Thinking, Research Proficiency, Global Perspective and Social Responsibility), and allows students to demonstrate their readiness to take junior-level classes at a four-year institution. (Prerequisite: Unless instructor grants special permission, students must be in their last semester of the Associate in Arts program at SCC) (MNTC 2: Critical Thinking)



CARP - Carpentry

CARP1111 - Carpentry Tools and Safety (3 Credits) The course covers the safe operations of carpentry tools in the construction industry. Hand tools and stationary power tools will be covered. Job site safety, scaffolding, and ladders will be covered in depth. (Prerequisite: Declare Carpentry as a major)

CARP1112 - Print Reading (3 Credits) This course will focus on Residential Print Reading and the importance of being able to read and interpret construction prints. Students will learn to read floor plans, elevations, plot plans, sections and details. Students will be expected to participate in class discussions and answer questions from the workbook and quizzes.

CARP1123 - Residential Principles I (5 Credits) This course will cover the initial framing of a residential building project. It may involve an addition or remodeling an existing residence. Students will construct basement bearing walls, knee walls, well openings, posts, and beams. Students will install the sill, sill seal, rim joists, floor framing, floor plywood, and wall construction. All types of floor systems and wall framing techniques will be covered and implemented where applicable. (Prerequisite: Declare Carpentry as a major)

CARP1130 - Residential Principles II (5 Credits) This course will continue the residential building project started in Residential Principles I. Students will do layout for roof trusses, ceiling joists, or rafters. The roof will be installed on the residential project to match the existing structure according to building points. All types of roof construction and roof framing will be analyzed, discussed, and implemented where applicable. Roof plywood, roof edge, ice and water guard, along with tar paper, will be installed. Students will shingle and flash the roof according to manufacturer's recommendations and local building codes. Window installation on the project will also be completed in the course. (Corequisite: CARP 1123)

CARP1210 - Introduction to Cabinetmaking (3 Credits) This course is designed to give students an understanding of kitchen design, cabinet sizes when purchasing factory cabinets and the importance of knowing appliance sizes. Students will read cabinet blueprints, build face frames and cabinet boxes. Students will use these new skills and build a base cabinet and upper cabinet. These skills could be incorporated into any number of larger cabinet projects. (Prerequisites: CARP 1110; CARP 1121; Carpentry as a major)

CARP1221 - Commercial Print Reading (2 Credits) Commercial Blueprint Reading will get students into reading basic commercial blueprints. Students will study commercial plans and working drawings. (Prerequisite CARP 1110; CARP 1121; CARP 1130; Carpentry as a major)

CARP1225 - Stairway Technology (3 Credits) This course covers all the aspects of stairway installation in residential construction. Students will learn the many code requirements involved with stairways. Students will layout, cut, and install a set of stairs. Stairs will also be constructed on the class residential building project. These stairways may be installed in the residence, off decks, or in the main entry. Skirt board, treads, risers, and handrails will be installed to finish a stairway to meet code requirements. (Prerequisites: CARP 1111; CARP 1112)

CARP1229 - Exterior Finish (4 Credits) This course covers the exterior finish of the student build residential project. This includes soffit and fascia, door and window trim, flashing, starter, corner boards, and siding. Many different types of siding will be discussed and studied from our text book and real world examples. Deck or patio construction would be completed at this time as well. (Prerequisites: CARP 1110 or CARP 1111)

CARP1232 - Carpentry Lab (2 Credits) Carpentry Lab will encompass a wide variety of projects in the shop. The students could be involved in the construction of a fish house, yard shed, play house, or other construction project deemed appropriate for the course by the instructor. This lab time may also be used for extra practice or refresher on new skills learned. This may involve wall framing, rafter layout, door hanging, and trim practice. If time allows, students may be introduced to cabinet construction. (Prerequisite: CARP 1110)

CARP1239 - Interior Finish (4 Credits) This course is the completion of the inside of the residential building project constructed in earlier classes. This course covers the installation of doors, casing, window trim, and base. Students will install cabinets, counter tops, and all the details to finish a kitchen. This may include crown mold, base shoe, toe kick, and flooring. Students will also be involved in the finishing of closets, shelving, door bumpers, and door knobs. (Prerequisite CARP 1110 OR CARP 1111 AND CARP 1130)

CARP2023 - Advanced Principles I (4 Credits) Students will be constructing a house from the ground up. Students will be staking out a residential building project and assisting the excavator. Students will build and pour footings and the foundation. Students will continue building basement walls, installing floor joists, erecting exterior and interior walls, and sheathing walls. (Prerequisites CARP 1110; CARP 1121; CARP 1130)

CARP2030 - Advanced Principles II (5 Credits) Advanced Principles II is the continuation of the house project. Trusses will be set, the roof sheathed and shingled. Windows and doors will be installed along with house wrap. Students will be insulating the house and installing drywall. This is a big part of the program and all students will be expected to work as a team. (Prerequisites: CARP 1110; CARP 1121)

CARP2032 - OSHA 30 For Construction (2 Credits) Students will be required to take our OSHA 30 class. Upon completion of the course this will give students their OSHA 30 card for construction. Many employers require employees to have this card to work on particular jobs.

CARP2100 - Foundations and Footings (3 Credits) This course covers site preparation for a residence which involves property lines, setbacks, and compliance with local city or county ordinances. Students will stake out a house and assist in excavation while the hole for the house is dug. Many types and designs of foundations and footings will be discussed. Appropriate foundations and footings will then be formed and poured by the students. (Prerequisite: CARP 1130)

CARP2101 - Commercial Construction Concepts (2 Credits) This course will be an exploration for carpenters into commercial construction. Students will build steel studded walls, hang steel door frames, and study other forms of commercial construction. Tours will be set up for students to visit commercial job sites and have the opportunity to compare the different types of construction. (Prerequisite: CARP 1130; CARP 2023)

CARP2103 - Residential Roof Framing (2 Credits) This course covers the roof framing of the student-built home. Students will study many aspects of roof framing with varying techniques of residential construction. (Prerequisites: CARP 1110; CARP 1121; CARP 1130)

CARP2105 - Job Site Experience (4 Credits) This course is the culmination of the second year project. Students will do a number of things to complete the house including patios, decks, sidewalks, garage doors and some finished floor installation. Students will also facilitate the return of tools and equipment back to college and lumber yard. The yard will be readied with appropriate landscape and the house will need to pass a final inspection. (Prerequisites CARP 1110 OR CARP 1111 AND CARP 1123)

CARP2129 - Advanced Exterior Finish (3 Credits) Second year students will apply exterior trim and siding to the house project. (Prerequisites CARP 1110; CARP 2023)

CARP2139 - Advanced Interior Finish (4 Credits) Second year students will trim out the house project. Students will gain experience hanging doors, trimming windows, installing base and finishing the house. (Prerequisites CARP 1110; CARP 2030)

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CDEV - Child Development

CDEV1210 - Child Growth and Development (3 Credits) This course is the first in a series of courses that is required for a certificate, diploma, or degree in Child Development Careers. The course provides an overview of typical and atypical child development across cultures, from prenatal through school age. It includes physical, social, emotional, language, cognitive, aesthetic, and identity/individual development. This course integrates developmental theory with appropriate practices in a variety of early childhood care and educational settings. (Prerequisites: None)

CDEV1220 - Health, Safety & Nutrition (3 Credits) This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

CDEV1230 - Guiding Children's Behavior (3 Credits) This course examines positive child guidance techniques for individual and group situations. Emphasis on problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification. Examines ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisites: None)

CDEV1240 - Working with Diverse Families and Children (3 Credits) Examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

CDEV1260 - Observation and Assessment 1 (1 Credit) This course introduces students to the most common observation methods used in early childhood programs. It will explore the fundamentals of using observation and evaluation techniques. (Prerequisites: None)

CDEV1270 - Learning Environment & Curriculum (3 Credits) This course presents an overview of skills to provide appropriate learning environments for young children. It examines the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interests, and ways to implement the principles of developmentally appropriate practices. (Prerequisite: None)

CDEV1310 - Infant-Toddler Development and Learning Experiences (3 Credits) This course will examine infant and toddler development as it applies to early childhood educational settings. Students will integrate strategies that support diversity and anti-bias perspectives, analyze development, correlate prenatal conditions with development, summarize child development theories, analyze the role of heredity and the environment, examine research-based curriculum models, and examine culturally and developmentally appropriate environments for infants and toddlers. (Prerequisite: CDEV 1210)

CDEV1312 - Preschool Development and Learning Experiences (3 Credits) This course provides an overview of preschool theory and development in home or center-based settings. Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: CDEV 1210)

CDEV2210 - Observation and Assessment 2 (2 Credits) This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning to join with families and professionals in promoting children's success. Recording strategies, rating systems, multiple assessment tools and portfolios are explored. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing developmental characteristics and increasing the awareness of normal patterns of behavior. (Prerequisite: CDEV 1260)

CDEV2310 - Children with Differing Abilities (3 Credits) This course examines the development of children with differing abilities. Students will integrate strategies that support diversity and anti-bias perspectives, providing inclusive programs for children, apply legal and ethical requirements including ADA and IDEA (Individuals with Disabilities Education Act). Exploration of differing abilities of children with physical, cognitive, health/medical, communication, and/or emotional/behavioral disorders, adapt curriculum to meet the needs of children with developmental differences, and cultivate partnerships with families who have children with differing abilities. (Prerequisites: CDEV 1210)

CDEV2510 - Internship (3 Credits) This course is designed to provide the student with a purposeful occupational experience in the Child Development and Family Services field. Each internship is an individualized experience. Site selection is based on each student's area of interest in conjunction with the instructor's approval to provide experience related to the skills and knowledge acquired in the program. The focus of the Child Development program is to allow students to integrate and apply skills and knowledge gained in the actual work environment. (Prerequisite: Instructor approval must be granted)

CDEV2520 - Children with Challenging Behaviors (3 Credits) This course supports students' understanding of children's behavioral problems and identifies intervention strategies to prevent and resolve problem behaviors. Effective behavior modification techniques and designing behavior plans will be explored. (Prerequisite: CDEV 1230)

CDEV2530 - Curriculum Planning (3 Credits) This course provides an advanced level of curriculum planning. Emphasis is on organizing, implementing, and evaluating developmentally appropriate curricula. (Prerequisite: CDEV 1270)

CDEV2550 - Cognitive Development (3 Credits) This course provides an overview of cognitive and multimedia learning experiences in either home, school, or center-based settings. Students integrate knowledge of child development, learning environments, and teaching methods to promote curiosity, attention, perception, memory, problem solving, logical thinking, and media literacy. (Prerequisite: CDEV 1210)

CDEV2560 - Language and Literacy Development (3 Credits) This course provides an overview of language and literacy learning experiences in home, school, or center-based settings. Students integrate knowledge of child development, learning environments, and teaching methods to promote literacy, conversation, literature, literacy, and bilingualism. (Prerequisite: CDEV 1210)

CDEV2590 - Social-Emotional Development and Learning (3 Credits) This course provides an overview of social-emotional learning experiences. Students integrate knowledge of child development, learning environments, and teaching methods to promote emotional development, moral development, self concept, self esteem, social skills, diversity awareness, and social studies. (Prerequisite: CDEV 1210)

CDEV2940 - Managing Multiple Sites (1 Credit) This course will examine challenges unique to managing multiple sites. It provides practical information and tools to help managers close the communication gaps created by distance, and get peak performance from employees they don't see everyday. (Prerequisites: CDEV majors only)

CDEV2990 - Practicum Project (1 Credit) During this project you will gain a broad view of program quality in an early childhood setting from an organizational perspective, learn how to administer and score the Program Administration Scale, learn how to analyze the results of the PAS and structure program improvements based on these results. (Prerequisite: Instructor Approval)

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Course Descriptions

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CHEM - Chemistry

CHEM108 - Introduction to Chemistry (4 Credits) A one-semester introduction to the field of chemistry, this course is designed to allow the student to understand how chemistry relates to everyday life and to learn some of the language and concepts of chemistry related to applied health. This course uses a math-based approach. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 3: Natural Sciences)

CHEM110 - Chemistry for the Health Sciences (4 Credits) Key concepts of general, organic, and biological chemistry are introduced in an integrated approach with applications from the medical fields. The course is designed to prepare students for Anatomy, Physiology, and Microbiology or to be utilized as a general Liberal Arts and Sciences course. Limited mathematical approach; this course does not meet the requirements of a prerequisite for CHEM 120. Lecture and a 2-hour lab are included. (Prerequisite: [Must have a Next-Generation Accuplacer Reading score of 250 or higher or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or READ 0095 or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher] AND [ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher] AND [have a Next-Generation Accuplacer AAF score of 250 or higher or (Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 76 or higher) or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1158 or higher.] (MNTC 2, 3: Critical Thinking, Natural Sciences)

CHEM120 - Principles of Chemistry I (5 Credits) This course introduces the student to the basic principles of chemistry including atomic and molecular structure, bonding, chemical reactions, solution chemistry, stoichiometry, thermochemistry, periodicity, and states of matter. Laboratory reinforces lecture concepts. (Prerequisites: Accuplacer College Level Math score of 103 or ACT Math score of 22 or MATH 120 or currently taking MATH 120 is needed)

CHEM121 - Principles of Chemistry II (5 Credits) Principles of Chemistry II is the second in a series of Chemistry courses designed for students who plan to major in a scientific or health related field. Topics include kinetics, chemical equilibria, acids and bases, buffers, precipitation reactions, thermodynamics, and electrochemistry. Lab topics reinforce lecture concepts. (Prerequisite: CHEM 120) (MNTC 3: Natural Sciences)

CHEM220 - Organic Chemistry I (5 Credits) Organic Chemistry I is the first course in a two semester sequence which covers the structure, stereochemistry, physical properties, reactivity, reaction mechanisms and synthesis of carbon-containing compounds. Emphasis on alkanes, alkenes, alkynes, alcohols, alkyl halides, aldehydes, ketones, and carboxylic acids and their derivatives. Laboratory experiments will integrate green methods into common synthetic techniques and the preparation and reactions of functional groups. (Prerequisite: CHEM 121)

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CMAE - Advanced Manufacturing Core

CMAE1510 - Print Reading (2 Credits) This course will give students an understanding of basic mechanical drawing principles. Topics include the alphabet of lines, arrangement of views, orthographic projections, scaling, dimensioning, tolerancing, and symbols. Students will read and interpret mechanical drawings. (Prerequisites: None)

CMAE1512 - Introduction to Manufacturing (2 Credits) Explore the exciting world of Manufacturing and begin your training for a great career! This course provides an overview of different fields within Manufacturing and the opportunity for students to learn basic skills in a variety of high-demand fields, including Carpentry, Machining, Mechatronics, and Welding. In addition to the hands-on activities that will be completed throughout the course, students will also have the opportunity to earn a Precision Measuring credential.

CMAE1514 - Safety Awareness (2 Credits) This course is designed to align with the National Skill Standard assessment and certification system for Safety Awareness. The course curriculum is based on federally-endorsed national standards for production workers. This course will introduce OSHA standards relating to personal protective equipment, Hazard Communication, tool safety, confined spaces, electrical safety, emergency responses, lockout/tagout, and others. (Prerequisites: None)

CMAE1518 - Manufacturing Process and Production (2 Credits) This course is designed to align with the National Skill Standard assessment and certification system for Manufacturing Processes. The course curriculum is based on federally-endorsed national standards for production workers. The course emphasizes Just-In-Time manufacturing principles, basic supply chain management, communication skills, and customer service. (Prerequisites: None)

CMAE1522 - Quality Practices (2 Credits) This course is designed to align with the National Skills Standard assessment and certification system for Quality Practices. The course curriculum is based upon federally-endorsed national standards for production workers. Emphasis is placed on continuous improvement concepts and how they relate to a quality management system. Students will be introduced to a quality management system and its components. These include corrective actions, preventative actions, control of documents, control of quality records, internal auditing of processes, and control of non-conforming product. (Prerequisites: None)

CMAE1526 - Maintenance Awareness (2 Credits) This course is designed to align with the National Skills Standard assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers. The Maintenance Awareness course introduces the concepts of Total Productive Maintenance and preventative maintenance. Students will be introduced to lubrication, electricity, hydraulics, pneumatics, and power transmission systems. (Prerequisites: None)

CMAE1528 - Career Success Skills (1 Credit) This is an introductory career success skills course. The primary goal of this course is to help individuals acquire a solid foundation in the basic skills for a successful career. This course will identify the skills important to businesses and help the student assess his/her level of skill. The course will provide suggestions for how the student can improve his/her level of skill. (Prerequisites: None)

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COMM - Communication

COMM100 - Introduction to Human Communication (3 Credits) This course is an introductory survey course of the communication discipline. It provides a sample of topics from interpersonal communication, intercultural communication, public speaking, small group communication, media, organizational communication, and interviewing. This course will offer students knowledge about communication and offer the opportunity to improve their skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM110 - Public Speaking (3 Credits) Learners in this class develop (or improve) skills in creating, organizing, supporting, and delivering both informative and persuasive messages to peer audiences. Through this course, students will develop arguments and practice academic research skills in order to adequately support their messages and develop credibility and professionalism. Learners will practice critical thinking and listening skills, support fellow students while delivering impromptu and extemporaneous speeches, and provide peer feedback to ideas and speech development. This course stresses building confidence as public communicators so students may speak effectively at work, in their communities, and as citizens in a democracy. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 210 or higher, or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher) (MNTC: Goal areas 1 and 9).

COMM120 - Small Group Communication (3 Credits) This course helps students develop or improve their participation in small groups and teams using effective communication and critical thinking. Content of the course includes both knowledge and skills components. Students can develop an understanding of communication and group theory while applying their knowledge in small group discussions, cooperative projects, and other activities. The course curriculum emphasizes reflection and growth. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: Goals 1 and 2).

COMM130 - Intercultural Communication (3 Credits) The focus of intercultural communication is to develop and improve the knowledge needed to understand culture, communication, how culture influences communication, and the process of communication between people from different cultures or co-cultures. The course also focuses on practicing the skills needed for effective intercultural interactions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 8: Human Diversity, Global Perspectives)

COMM140 - Interpersonal Communication (3 Credits) In this class, participants will examine key components of interpersonal communication theory, identify the interpersonal communication skills necessary for healthy relationships, assess their own interpersonal communication effectiveness, and practice and hone interpersonal communication skills necessary for healthy home and work relationships. This course will also address relevant issues of social interaction, including how human diversity/culture (age, race, gender, etc.) affects our interpersonal communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 1: Communication)

COMM150 - Introduction to Mass Communication (4 Credits) Introduction to Mass Communication explores the structures, functions, responsibilities, and effects of the media in contemporary society. Students will gain an understanding of the social, economic, and intellectual forces that help shape the media. The course presents concise historical perspectives of each major type of mass media. However, the primary focus is on the issues surrounding contemporary mass media with a strong emphasis on media literacy and ethical responsibility. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 2, 9: Critical Thinking, Ethical and Civic Responsibility)

COMM160 - Practicum in Forensics Competition (2 Credits) Forensics is an activity where students will be able to learn more about the process of human communication through actively engaging and performing in public address, oral interpretation, limited preparation and debate competition with colleges and universities from across the nation. Each week students will participate in lessons, workshops and coaching sessions that will assist them in preparing for intercollegiate competition. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) Permission of instructor is REQUIRED.

COMM190 - Special Topics in Communication Studies (1 - 3 Credits) This special topics course provides students an opportunity to examine topics of interest in the field of communication studies. Topics in this course are specially designed by instructors at South Central College based on instructor interests, student interests, and/or the instructor's teaching expertise. Topics may or may not be equivalent to courses at other colleges and universities. Students may repeat the course under different topics. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) Meets MNTC goal 1).

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COMP1120 - Foundations of Computing (4 Credits) This course introduces the student to the world of information systems and technology. Students will explore the history of computing, career opportunities in information technology, computer concepts as they apply to a business environment, basic web page development, command-line interfaces, file management principles, computer numbering systems, and database principles. Students will also receive initial exposure to computer programming and algorithms through the use of problem analysis, pseudo-code and entry-level programming. (Prerequisites: None)

COMP1125 - Spreadsheet/Database Integration (4 Credits) The focus of this course will be on the core competencies of spreadsheet and database software as the tools for storing and manipulating data. Topics covered in the spreadsheet portion of the course include formatting, creating formulas and using functions, and creating charts and pivot tables to analyze and interpret the data. Topics covered in the database portion include understanding the concepts, design, and construction of a relational database. The student will learn how to design, implement, and maintain a database using entity-relationship models, normalization, and Structured Query Language (SQL). Basic Windows navigation skills will be beneficial. (Prerequisites: None)

COMP1130 - Programming Fundamentals (4 Credits) Programming Fundamentals teaches you how to design and develop small programs that solve different problems and implement ideas. In this class, you will discover how applications store and work with data, make decisions, and perform repetitive tasks. You will use and create functions, data structures, and objects, to represent the concepts from real life in your code. You will also use programming language libraries to develop efficient code that is easy to maintain. In the process of learning, we will emphasize testing, debugging, and scalability of your programs. (Prerequisites: COMP 1120 Foundations of Computing)

COMP1140 - Web for Business (3 Credits) This course approaches developing web pages from a business point of view. It covers HTML5 and CSS3 markup languages used to create web pages. The course is intended for people wanting to learn how to create and publish web pages. No previous experience with HTML or programming is required. (Prerequisites: None)

COMP1200 - PC Hardware and Software Essentials (4 Credits) PC Hardware and Software, presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for CompTIA's A+ certification. (Prerequisites: None)

COMP1360 - Introduction to Data Communications and Networking (4 Credits) This course serves as a general introduction for students seeking to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network. Network concepts such as the OSI model, topologies, and major protocols, as well as the basic functions of system administration and operation are also included. The course is operating system independent and provides an introduction to several popular network operating systems. (Prerequisite: COMP 1200 or instructor approval)

COMP2145 - Web Programming (4 Credits) This course teaches you one of the popular server-side programming languages so that you can design and build secure web applications. In this class, you will learn the principles of the client-server architecture and protocols that govern the network communication and data transfer. You will implement a web framework to create dynamic websites that use databases to store and process data. You will design and create user-facing web applications with security and user experience in mind. (Prerequisites: COMP 1130 with a C (2.0) or higher, and COMP 1140 with a C (2.0) or higher OR instructor permission.) It is strongly recommended that you have a minimum typing speed of at least 35 wpm as well as knowledge of database programming (COMP 1125).

COMP2150 - Web Services (4 Credits) This course focuses on web services technologies used in person-to-computer and computer-to-computer communications. Students will understand the Service Oriented Architecture (SOA) and web services concepts. The students will be able to explain and employ Representational state transfer (REST) or RESTful architecture, the Hypertext Transfer Protocol (HTTP), and data exchange formats, including eXtensible Markup Language (XML) and JavaScript Object Notation (JSON). Through this course, learners will understand, design and implement scalable and secure RESTful Web APIs (Application Programming Interfaces), utilizing chosen server-side scripting language. The class includes the exploration of the Internet of Things (IoT) concept and web services impact on the embedded systems. (Prerequisites: COMP 1130 and COMP 1140 with a C [2.0] or better)

COMP2300 - Java (4 Credits) This course covers OOP (Object Oriented Programming) using the Java language. Inheritance, polymorphism, abstract classes, and interfaces are covered. SWING, exceptions, data structures, and I/O streams will also be covered, demonstrating each of the OO concepts. Minimum typing speed of 35 wpm. You can test your typing speed at <http://typingtest.com>. (Prerequisites: Successful completion of COMP 1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.)

COMP2312 - Software Development (4 Credits) Software Development covers common programming techniques used in writing applications as well as demonstrating how to use the current leading Integrated Development Environment. Topics include object-oriented programming, control statements, database programming, and producing web-based applications. The capstone project for this course involves creating an application for a real-life business program.

(Prerequisite: Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or instructor permission if the student has a working knowledge of at least one programming language.)

COMP2452 - Information Storage and Management (4 Credits) This course is designed to provide the student with a strong understanding of underlying storage technologies. This course will cover the varied components of modern information storage infrastructure, including virtual environments. Students will learn about the architectures, features, and benefits of Intelligent Storage Systems; storage networking technologies such as FC-SAN, IP-SAN, NAS, Object-based and unified storage; business continuity solutions such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. It provides comprehensive learning of storage technology, allowing the student to make more informed decisions in an increasingly complex IT environment. (Prerequisite: COMP 1200)

COMP2453 - Virtualization Technologies (4 Credits) The Virtualization Technologies course is designed to get students up to speed on one of the most important aspects of today's IT environment. This course covers the fundamental concepts, components, infrastructure, as well as security and privacy considerations for virtualization systems. Through lectures, discussions, demonstrations, and labs, students learn the skills and knowledge necessary to install, configure and manage virtual environments. Students will learn how to effectively plan, implement and manage Cloud Computing in virtual data centers and complete introductory coursework in Virtualization software. Topics will include creating virtualized switches and storage, creating and managing virtual machines, establishing access controls, and performing resource monitoring. With additional effort, students can use this knowledge to pass the VCP Certification Exam. (Prerequisite: COMP 1200)

COMP2456 - Cloud Technologies and Services (4 Credits) The Cloud Technologies and Services (CTS) course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic (traditional), virtualized, and public / private cloud data center environments. These technologies include storage, networking, desktop and application virtualization. Fundamental models such as Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), Infrastructure-as-a-Service (IaaS) are explored. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Upon completing this course, students will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for an organization. (Prerequisite: COMP 1200)

COMP2460 - Linux Administration (4 Credits) The Linux operating system is extremely popular in the world of servers and the internet and is gaining ground on the desktop. This course takes a student through the Linux operating system from learning how to use the command line and text-based shells through the administration of network services. Major topics include file management, user management, shell scripting and popular programming languages, system administration including print services and telnet, SSH, FTP, HTTP, NFS, and Samba services. (Prerequisites: COMP 1200, 1360)

COMP2462 - Microsoft Administration (4 Credits) This course provides students with a comprehensive understanding of Microsoft Windows Server and prepares them to perform server administration. The class is based on the requirements of the Microsoft Certified Professional (MCP) credential and teaches the skills to successfully implement, manage, and troubleshoot Microsoft-Windows-based operating environments. Students apply their knowledge through hands-on projects and case study assignments, and learn how to install and administer Active Directory services and manage Active Directory objects. In addition, they learn how to implement and configure core services such as Networking, Storage, Active Directory Domain Services (ADDS), Group Policy, File and Print services, and Hyper-V. Finally, students learn how to install and administer network protocols and services such as virtual private networking, Routing and Remote Access Service, DHCP, and DNS. (Prerequisites: COMP 1360)

COMP2466 - Routing & Switching (4 Credits) This course addresses the integration of routing and switching technologies to create efficient enterprise networks. Students will learn to design, build, and configure a network. Students will configure routing protocols and perform LAN, WAN, and VLAN troubleshooting using a structured methodology based on the OSI model. Upon completing this course, the learner will be able to select and implement the appropriate Cisco IOS services required to build a scalable, efficient, and highly available network. This course helps students prepare for the CCNA (Cisco Certified Network Administrator) exam. (Prerequisite: COMP 1360)

COMP2475 - Security Basics (4 Credits) An introduction to the various technical and administrative aspects of Information Security (INFOSEC), this course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system with appropriate intrusion detection and reporting features. Students will be exposed to a wide spectrum of security activities, methods, methodologies, and procedures. The terminal objectives for this course as defined in NSTISSI Training Standards 4011 are: 1. Understand the threats to and vulnerabilities of information systems. 2. Recognize the need to protect data, information, and the means to process it. 3. Develop a working knowledge of INFOSEC principles and practices. 4. Design, execute, and evaluate INFOSEC security procedures and practices. (Prerequisites: COMP 1360)

COMP2496 - Capstone - Software Development (1 - 4 Credits) This course is used to assess and validate student learning and performance throughout the previous semester as well as to give students an opportunity to practice their

skills in a simulated business environment. It is also an opportunity for students to demonstrate that they have achieved the learning goals established by South Central College's Computer Careers Department. This course integrates learning from the courses in the major with the courses from the rest of the student's academic experience. Students will work in teams under the supervision of faculty members who will act as project managers. (Prerequisite: Instructor Approval)

COMP2498 - Capstone - Networking Services (1 - 4 Credits) This course is an opportunity for students to demonstrate that they have achieved the learning goals established by South Central College's Computer Careers Department. This course integrates learning from the courses in the major with the courses from the rest of the student's academic experience. It requires the application of that learning to a service learning project that meets the community need of providing technology assistance to lower income families. Students will gain real world experience using their troubleshooting skills to fix, upgrade and refurbish donated computers. These computers are then recycled back into the community to no-profit organizations and families in need. Students will have an opportunity for reflection through assignments that promote greater understanding of computer concepts and themselves. Students are strongly encouraged to "pass it on," by sharing their computer skills and knowledge through a mentoring process of community members and volunteers. This course will provide an environment, where students can develop a good balance between their technical and "soft" skills. It will include concepts such as team dynamics, conflict management, thinking "outside the box", working with diverse populations and developing professional attitudes and habits. (Prerequisite: Instructor Approval)

COMP2500 - Emerging Technologies (4 Credits) eCatalog Use Only

COMP2605 - Capstone Project/Internship (1 - 8 Credits) This course is used to assess and validate student learning and performance throughout the previous semesters as well as to give students an opportunity to practice their skills in a simulated business environment. Students will work in teams under the supervision of faculty members who will act as project managers. (Prerequisite: Instructor Approval)

COMP2610 - Special Issues: (1 - 3 Credits) This course allows students to pursue special interest areas and to gain exposure to emerging technologies in Information Systems and Networking. (Prerequisite: Instructor Approval)

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Course Descriptions

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CP - Community Paramedic

CP2500 - Roles Advocacy and Outreach (2 Credits) This is an introduction to the role and function of the Community Paramedic (CP). The student will learn about the Community Paramedic's specific role and function as a member of the health care team and part of the community. The student will identify the components of the role, define it, and explain the "scope of practice" for the position of CP. Additionally, the student will learn about the role of the CP as an advocate for clients in the community. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2505 - Community Assessment (2 Credits) This course is designed to introduce the role of the Community Paramedic (CP) as a member of the health care team in community assessment. The student will map the community health care services, describe the demographics of the community and assess their impact on the health of the clients. Additionally, the student will gain understanding of community health services in order to give advice on health care needs in the community. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2510 - Care and Prevention Development Strategies (3 Credits) This course will introduce the responsibilities of the Community Paramedic (CP) for gathering appropriate patient/client information and maintaining accurate records, including documentation of encounters between the CP and the patient/client. The student will also learn about the CP's role in assessing health care needs and appraising health care conditions. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

CP2520 - Community Paramedic Clinical (5 Credits) This course will provide the student with clinical training under the supervision of a medical director, physician, nurse practitioner, physician's assistant or public health provider. The student will recommend appropriate health and/or social care professionals for the patient, prioritize jobs, and provide both advice and care. The student's placement in the clinical is based on qualifications and past training and experience. (Prerequisite: Acceptance into the Community Paramedic Program. All CP courses must be taken concurrently)

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CRTK - Critical Thinking

CRTK100 - Critical Thinking (3 Credits) This course helps students acquire and develop critical thinking skills. Focused on the practical application of the principles of good reasoning, it encourages them to cultivate cognitive virtues such as consistency, self-awareness, open-mindedness, fairness, and intellectual humility. Students will be taught how to: recognize (and make) good arguments, identify (and avoid) logical fallacies and cognitive biases, articulate ideas in a clear and precise way, understand the significance and limits of the scientific method, and critically evaluate sources in the media. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: 2 Critical Thinking)

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CTLS - Civil Engineering Technology

CTLS1110 - Basic AutoCAD (3 Credits) This course covers the basic operations of AutoCAD. It includes drafting and editing, drawing setup, scaling and plotting. (Prerequisites: None)

CTLS1800 - Construction Contract Documents (3 Credits) This course covers the concepts relating to Civil Engineering drawings, construction specifications, and legal documents as associated with the industry. (Prerequisite: ENGL 100)

CTLS1805 - Civil Cad (3 Credits) This course covers the use of AutoDesk Civil 3D software in the design and drawing of Civil Engineering plans. (Prerequisite: CTLS 1110)

CTLS1810 - Introduction to Surveying (4 Credits) This course covers the principles of plane surveying involving methods of measuring horizontal and vertical distance, elevation and angles. Practice in the use of common measurement equipment, leveling instruments, compass, transit, theodolite and total station is stressed along with introduction to Global Positioning Systems and proper care and maintenance of all equipment. Recording of field information and correction of acquired data are an important part of this course. (Prerequisite: Successful completion of MATH 0075 with a grade of C (2.0) or higher, or Next Generation Accuplacer Arithmetic score of 250 or higher or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher.)

CTLS1815 - Surveying 2 (4 Credits) This course covers the practices and techniques required in topographic, route, control, and construction surveys. It will also stress highway curves, cross-sections, and layout. The course will focus on the use, care, and maintenance of TopCon total stations and Trimble GPS. (Prerequisites: CTLS 1810)

CTLS1820 - Materials Technology (4 Credits) This course covers the types of materials, construction methods, and quality control necessary in the construction of driven surfaces. The course examines basic geology with soil identification and classification for base construction, materials evaluation, testing methods for quality assurance in grading and base, bituminous surfacing, and concrete surfacing. This course is based on MnDOT certification requirements in the areas of Aggregate Production and Concrete Field 1. (Prerequisite: Must have a Next Generation Accuplacer Arithmetic score of 250 or higher; or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

CTLS2110 - Statics and Strengths of Materials (3 Credits) This course covers an introduction to structural theory and calculation. It includes analysis of forces, vectors, calculations of forces, moments and internal stresses and strains in structural materials. It also includes tracing of load paths through the structure. (Prerequisite: MATH 125)

CTLS2825 - Civil Design (4 Credits) This course covers the general techniques and procedures used in the design of necessary infrastructure associated with highway design. Bentley's Microstation software is utilized throughout the course. (Prerequisites: CTLS 1110, 1815)

CTLS2830 - Construction Estimating and Inspections (4 Credits) This course covers the study and performance of procedures necessary in estimating quantities and costs and construction inspection of heavy construction. Emphasis is placed on construction inspection through measurement of quantities, documentation, record keeping, and contract document interpretation. The equipment and materials utilized are also presented. (Prerequisite: CTLS 1110)

CTLS2835 - Introduction to Land Surveying (3 Credits) This course covers the history of land surveying from the beginning advancement of the United States to modern day standards. Students will learn technical elements of writing legal land descriptions, basic fundamentals of platting land, and methods of researching property and property corners. (Prerequisite: CTLS 1110, CTLS 1810)

CTLS2845 - Special Studies (1 - Credits) Students work independently or in groups on special problems or subjects relating to the industry. (Prerequisites: Instructor approval)

CTLS2846 - Hydrology and Hydraulics (3 Credits) This course introduces the basic design of water treatment and distribution systems, wastewater treatment and collection systems, stormwater flow systems, stormwater detention facilities, erosion control, and stormwater pollution prevention plans. (Prerequisites: CTLS 1110, MATH 120)

CTLS2851 - Internship (3 Credits) The internship/practicum requires a minimum of 144 hours of hands-on experience performing civil engineering technology duties, such as construction Inspection, surveys, roadway design, GIS, materials testing, and or other duties as requested. This course is designed to provide the student with a field experience to observe how procedures and/or policies are implemented and completed in civil engineering environments. (Prerequisites: None)

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CULN - Culinary Arts

CULN1100 - Introduction to Foodservice (2 Credits) This course includes an introduction to the food service industry, culinary terms, use of weights and measures, and kitchen safety. The course also covers equipment and knife identification and use. (Prerequisites: None)

CULN1101 - Sanitation & Food Safety (2 Credits) This course develops an understanding of the basic principles of sanitation and safety in order to maintain a safe and healthy environment in the food service industry for the consumer. Also covered is an understanding of the laws and regulations related to sanitation in food service operations. (Prerequisites: None)

CULN1102 - Culinary Math (1 Credit) Students will learn standard units of measurements and unit conversions, recipe scaling, percentages, rounding, and yield tests as they relate to the food service industry. (Prerequisite: Next Generation Accuplacer Arithmetic score of 250 or higher or Classic Accuplacer Arithmetic score of 56 or higher or MCA Math score of 1146 or higher or completion of MATH 0075 with a grade of C (2.0) or higher)

CULN1103 - Culinary Fundamentals 1 (4 Credits) Students will learn basic concepts and principles of cooking. Students will be introduced to mise en place. Students will identify herbs and spices and different cooking methods. They will demonstrate proper knife skills and basic vegetable cuts. Students will make basic stocks, mother sauces and soups. (Corequisites: CULN 1101 and CULN 1104)

CULN1104 - Culinary Fundamentals 2 (4 Credits) Students will be introduced to all conventional and non-conventional cooking methods. They will convey knowledge and perform proper cooking of meats, poultry, fish, starches, and vegetables. They will expand their knowledge and skills in creation of sauces, from mother sauces to small sauces. In addition, they will create relishes, flavored oils, salsas, compotes, coulis, and purees. (Corequisite: CULN 1103)

CULN1105 - Butchery (4 Credits) This course covers the identification and preparation techniques of various cuts and grades of meats, poultry, fish/shellfish, and game meats. This course will also teach the processing (butchering) and the storage of fresh meats and the operation and cleaning of meat processing equipment. (Corequisite: CULN 1101)

CULN1106 - World Cuisine & Cultures (2 Credits) This course is designed to introduce students to world cuisines and their cultures. Students will prepare food from Europe, the Middle East, Africa, Asia and cuisines of the Americas. (Corequisite: CULN 1101)

CULN1200 - Garde Manger 1 (3 Credits) Students will be introduced to Garde Manger: the art of cold foods. They will gain knowledge and demonstrate skills used for the creation of salads, dressings, and a variety of hot and cold sandwiches. (Prerequisite: CULN 1101) (Corequisite: CULN 1201)

CULN1201 - Garde Manger 2 (3 Credits) Students will be introduced to the fine art of fruit and vegetable carvings, buffet presentations, appetizers, and hors d' oeuvres along with the art of charcuterie. (Corequisite: CULN 1200)

CULN1202 - A la Carte Cooking & Production (4 Credits) Students will apply the foundation of cooking techniques and fundamentals in a la Carte and batch cooking. Students will work as a team as well as individually to demonstrate their skills. (Prerequisite: CULN 1104)

CULN1203 - Baking 1 (2 Credits) This course covers the preparation and makeup of a variety of yeast raised doughs. Students use a variety of commercial equipment to produce breads, Danish, croissants, rolls and yeast raised coffee cakes. Students will be introduced to baking equipment, recipe conversions, and sanitation processes in a bakery. (Prerequisite: CULN 1101) (Corequisite: CULN 1204)

CULN1204 - Baking 2 (4 Credits) This course covers baking terminology, function of ingredients and the preparation of finished products: quick breads, pies, cakes, cookies, dessert sauces, custards, puddings, classical desserts, and specialty cake decorating. (Corequisite: CULN 1203)

CULN1205 - Hospitality Nutrition (2 Credits) This course covers the basic information to understand food trends, digestion and utilization processes, menu development for normal and special diets, and the preparation of nutritionally balanced meals. (Prerequisite: CULN 1100)

CULN1300 - Culinary Management (4 Credits) Students will learn of various management topics including: leadership, training, motivation, delegation, hiring, problem solving, and conflict resolution. Students will learn information and skills necessary to analyze and improve profitability. Other topics covered are income statements, forecasting sales, labor and food costs. They will also learn about the cycle of food purchasing. (Prerequisite: CULN 1100)

CULN1301 - Advanced Culinary (4 Credits) This is the capstone culinary class where students demonstrate their advanced culinary abilities by creating a menu, developing a budget, planning and management of a team, menu preparation, and serving. (Prerequisites: CULN 1201, 1204)

CULN1302 - Sustainable Foods & Organic Cooking (1 Credit) Students will be introduced to sustainable farming and why it is important. They will also explore organic versus conventional farming and the nutritional differences. (Prerequisite: CULN 1100)

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DA - Dental Assisting

DA1813 - Preclinical Dental Assisting (2 Credits) Pre-Clinical Dental Assisting is designed to provide fundamental knowledge of microbiology and infection control measures. Emphasis will be placed on personal protection, risk management, sterilization, chemical disinfection, environment surface and equipment aseptic techniques. The student will develop the skills necessary to apply the techniques gained within the course to all clinical and laboratory courses. Standard precautions will be utilized throughout the entire curriculum, within all courses which apply. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; Co-requisite: DA 1814)

DA1814 - Chairside Dental Assisting I (4 Credits) Chairside Dental Assisting I provides laboratory and clinical knowledge and skills required for dental assisting clinical techniques and methods. Areas of emphasis are: clinical asepsis, safety, ergonomics, patient management and preparation, dental instruments and nomenclature, chairside assisting techniques, 4-6 handed dentistry, and treatment planning. (Prerequisites: COMM 140; PHIL 100 or PHIL 150; HLTH 1950; HLTH 1952; DA 1820; Co-requisite: DA 1813)

DA1815 - Dental Materials (3 Credits) This course is designed to give students fundamental knowledge in dental materials, their purpose, composition, manipulation, properties, purposes, and storage as utilized in the dental practice and laboratory setting. The course includes both didactic and laboratory instruction for various material types including gypsum, impression materials, waxes, cements, and restorative materials. Safety in handling materials will be emphasized in laboratory. (Prerequisite: DA 1820)

DA1816 - Radiology I (3 Credits) Radiology I is designed to provide knowledge and skills in radiation history, intra-oral and extra-oral radiographic techniques, image principles and techniques, radiographic equipment and image receptors, radiographic infection control, radiation exposure guidelines, patient and operator protection/safety, patient relations, education, and legal issues, anatomical landmarks and pathology, radiographic film mounting and viewing, radiographic interpretation, and record keeping. (Prerequisites: DA 1820 and DA 1850)

DA1820 - Dental Science I (3 Credits) Dental Science is designed to provide the student with the fundamental, anatomical, and physiological structures of the human body. All body systems will be covered including embryology and histology. The focus of the course is to help students with no prior preparation in science to have a fundamental understanding of the structure and function of the human body with emphasis on the head and neck. The student will develop the necessary background knowledge to be a successful chairside and clinical assistant. (Prerequisites: Admitted to Dental Assisting program; AND have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher, or completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher AND completion of either ENGL 0090 or EAP 0095 or ENGL 100 with a grade of C (2.0) or higher.)

DA1823 - Dental Science II (2 Credits) This course is designed to provide basic knowledge in oral pathology and pharmacology. Emphasis will be placed on methods of application, classifications and usage of knowledge in clinical settings. (Prerequisites: DA 1820)

DA1825 - Dental Assisting Expanded Functions (5 Credits) Dental Assisting Expanded Functions is designed to train chairside dental assistants in the Expanded Functions for an advanced level of skills and knowledge permitted to provide intra-oral patient care procedures beyond traditional dental assisting duties. Procedures emphasized will be those legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisites: DA 1814, 1815)

DA1826 - Radiology II (3 Credits) This course is a continuation of Radiology I. This in-depth course will cover the history of radiation, radiation physics, and differing radiation characteristics. The course will also include patient exposures, patient management and quality assurance. Students will also learn film techniques and processing. (Prerequisites: DA 1816)

DA1827 - Dental Nutrition (1 Credit) This course is designed to provide basic background knowledge in nutrition as it pertains to dental health and preventative dental philosophies. Emphasis will be placed on preventative dentistry and nutrition benefits of dental health. The focus of this course is to provide the student with the knowledge to define nutrition, describe key nutrients, use dietary guidelines, food labeling, food pyramids, define dental diets. Emphasis will be placed on dental health and nutritional guidelines. (Prerequisite: Admitted to Dental Assisting program)

DA1828 - Nitrous Oxide Sedation (1 Credit) Nitrous Oxide Sedation is designed to provide fundamental knowledge, elements, purposes, and uses of Nitrous Oxide sedation for the Dental Hygienist and Dental Assistant. (Prerequisites: DA 1814, HLTH 1950, HLTH 1952, CPR must be valid throughout the course.)

DA1845 - Clinical Affiliations (8 Credits) This course is designed to give the dental assistant student practical experience in dental practices. The extra-mural experiences will be completed in local dental offices including specialty areas as available. Clinical duties and expanded functions covering all aspects of the dental practice will be utilized. (Prerequisites: Successful completion of all previous dental assisting courses. Valid Healthcare Provider CPR)

DA1850 - Dental Business Technologies (3 Credits) The course is designed to introduce students to dental software and implement software skills in clinical courses. This course will also expose students to business management aspects including administrative, financial and records management. Basic computers skills are needed for successful completion of course (Prerequisites: Admission to the Dental Assisting program)

DA1855 - Ethics and Jurisprudence (1 Credit) This course will focus on the rules and regulations found in the Minnesota Dental Practice Act. An understanding of ethical and legal implications for dental practitioners will prepare students to take the Minnesota Jurisprudence exam for dental practitioners. (Prerequisites: DA 1825 and DA 1860)

DA1860 - Expanded Functions II (4 Credits) Expanded Functions II is designed to provide knowledge of general and specialty dentistry with associated chairside dental assisting laboratory and clinical skills. Emphasis will be placed on general and specialty dental procedures, including expanded dental procedures legally allowed by the Minnesota Board of Dentistry for Licensed Dental Assistants. (Prerequisite: DA 1814, DA 1815).

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EAP - English for Academic Purposes

EAP0070 - English for Introductory Algebra (2 Credits) This course provides specialized language and cultural support for multilingual students concurrently enrolled in any section of MATH 0075. Students whose first language is not English are explicitly instructed in American English mathematical terms related to Introductory Algebra, including the cultural

context and language used in algebraic expressions, functions, polynomials, exponents, solving and graphing linear equalities and inequalities, interpreting data in graphical form, factoring polynomials, simplifying rational expressions, and solving and simplifying radical and rational equations. Students are encouraged to activate and build on previous learning by comparing the way they were taught math in their other languages with the way they are taught in the U.S. (Prerequisite: Classic Accuplacer ESL Reading Skills score of 0 -100) (Co-requisites: Concurrent enrollment in any section of MATH 0075)

EAP0075 - English for Intermediate Algebra (2 Credits) This course provides specialized language and cultural support for multilingual students concurrently enrolled in any section of MATH 0085. Students whose first language is not English are explicitly instructed in American English mathematical terms related to Intermediate Algebra, including the cultural context and language used in equations and inequalities, linear functions, polynomial and rational functions, quadratic functions, equations involving radicals, and absolute values. Students are encouraged to activate and build on previous learning by comparing the way they are taught math in their other languages with the way they are taught in the U.S. (Prerequisite: Classic Accuplacer ESL Reading Skills score of 0-100) (Co-requisites: Concurrent enrollment in MATH 0085)

EAP0080 - English for Academic Purposes: Reading and Oral Communication (4 Credits) EAP 0080 English for Academic Purposes: Reading and Oral Communication is equivalent to READ 0080 for multilingual students whose first language is not English. Special attention is given to skills and strategies for coping with college textbook reading assignments and lectures across the curriculum, by looking at course syllabi and excerpts of readings and lectures from major programs of high interest to the students, by listening to guest speakers, and by visiting and observing a variety of South Central College (SCC) courses. Students will also learn practical reading skills for navigating D2L as well as the SCC website, coping with online and digital readings and quizzes, accessing student support services, and attending SCC info sessions and events. Each student will develop a personalized approach to becoming an autonomous learner of academic vocabulary. The multicultural diversity in this course is a catalyst for thought and discussion, with readings and lectures by and about the students' heritage cultures. Together, the students will build an understanding of how SCC and the Minnesota State system compares to their previous sites of learning and/or systems of higher education in other countries. (Prerequisites: ESL Accuplacer Reading Skills score of 60 - 82)

EAP0085 - English for Academic Purposes: College Writing and Grammar (4 Credits) EAP 0085 English for Academic Purposes: College Writing and Grammar is equivalent to ENGL 0080 for multilingual students whose first language is not English. This course is an introduction to academic writing, grammar, and communication for students who need more instruction in and practice with English spelling, punctuation, pronunciation, simple and compound sentence structure, and paragraph structure. Special attention is given to English keyboarding skills and learning to navigate the D2L LMS, as well as the practical skills of using campus email and filling out forms and documents needed to maintain one's status as a student. Explicit instruction is also given in the academic expectations and speaking skills demanded in higher education in the U.S., such as communicating with instructors, peer and group discussions, seeking help from college staff, and giving short reports and presentations. A cross-cultural comparative approach is taken throughout this course, and students are encouraged actively and critically to think about, write about, and share their experiences and perspectives with the greater SCC community. (Prerequisites: Classic Accuplacer ESL Language Use score of 65-81).

EAP0090 - English for Academic Purposes: Advanced Reading and Oral Communication (4 Credits) This course is equivalent to READ 0090 for multilingual students whose first language is not English. It offers a step-by-step approach to building the academic reading, listening, and study skills needed to successfully comprehend college-level textbook readings and lectures, take notes, and prepare for tests. Students apply what they learn to excerpts of college-level textbook readings and excerpts of actual videotaped lectures from SCC courses. Students also work on vocabulary acquisition through the study of academic words typically found in college-level reading materials. Special attention is given to increasing reading speed, navigating online learning management systems, and accessing student and academic support services. (Prerequisites: Classic Accuplacer ESL Reading Skills score of 83-100 or completion of EAP 0080 with a grade of C (2.0) or higher).

EAP0095 - English for Academic Purposes: Advanced College Writing and Grammar (4 Credits) EAP 0095 English for Academic Purposes: Advanced College Writing and Grammar is equivalent to ENGL 0090 for multilingual students who speak English as a second language. This course offers instruction in complex sentence structure and strategies for learning and using vocabulary from the Academic Word List, within the context of writing academic essays, participating in discussions, and giving academic presentations. Students will develop their narrative, expository, and argument writing skills using a writing process that includes pre-writing, drafting, revising, and editing final drafts for proper spelling, punctuation, and grammar. In addition, students will analyze and practice strategies for interacting effectively with their instructors and classmates in class and on campus. (Prerequisites: Classic Accuplacer ESL Language Use score of 82-100 or completion of EAP 0085 with a grade of C (2.0) or higher.)

EAP0099 - English as a Second Language (ESL) Support Lab (1 Credit) The first and second semesters of 100+ level courses are the most difficult, especially if English is not your native language. EAP 0099 is a special individualized class to help you with ENGL 100 and other MnTC introductory courses. You will receive expert guidance in reading textbooks, taking lecture notes, improving your writing, memorizing keywords, and preparing for and taking tests. Students registered for EAP 0099 Section 01 should ideally enroll concurrently in any section of ENGL 100. Students who register for EAP 0099 Section 02 can be enrolled in any 100+ level MnTC introductory course. Section 2 starts four weeks after the start of

the semester and meets for three hours per week instead of two. Prerequisites: Accuplacer ESL Reading Score of 101-120, or grade of C or better in EAP 0090 or EAP 0095, or recommendation of the student's instructor or faculty advisor.

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Course Descriptions

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ECE - Early Childhood Ed.

ECE1205 - Introduction to Early Childhood Education (3 Credits) This course provides an overview of the early childhood field, including theories, philosophies, missions, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. (Prerequisite: None)

ECE1210 - Child Growth and Development (3 Credits) This course is the first in a series of courses that is required for a degree in Early Childhood Education and Family Services. This course encompasses multiple, interrelated areas of children's development - including both typical and atypical, for children from conception through age eight in the areas of physical, social, emotional, language, cognitive and aesthetic/creative development and is supported by coherent theoretical perspectives and by current research. The course emphasizes variations across cultures and interactions between maturational processes and environmental factors. (Prerequisite: None)

ECE1220 - Health, Wellness & Nutrition (3 Credits) This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include preventing illness and accidents, handling emergencies, providing health, safety, and nutrition educational experiences, meeting children's basic nutritional needs, child abuse and, current health-related issues. This course does NOT include CPR or first aid certification. (Prerequisites: None)

ECE1230 - Behavior Guidance (3 Credits) This course encompasses multiple, interrelated areas of positive child guidance techniques for individual and group situations - including problem prevention and positive guidance strategies, communication, setting limits, problem solving and behavior modification and is supported by coherent theoretical perspectives and by current research. This course emphasizes ways to establish supportive relationships with children and guide them in order to enhance learning, development, and well-being. (Prerequisite: None)

ECE1240 - Diverse Children and Family Relations (3 Credits) This course examines how to work with many types of families. Investigates the importance of the family/school partnership, study methods of effectively communicating with families, and identify community organizations and networks that support families. Various classroom strategies will be explored emphasizing culturally and linguistically appropriate anti-bias approaches supporting all children in becoming competent members of a diverse society. (Prerequisites: None)

ECE1270 - Creative Activities and Environments (3 Credits) The student will gain knowledge and skills related to providing age-appropriate learning experiences and learning environments for young children. The student will examine the role of the teacher in providing learning experiences to meet each child's needs, capabilities, and interest, and ways to implement the principles of developmentally appropriate practices. The student will practice language and literacy, social, emotional and sensory learning, art and creativity, and math and science learning experiences. (Prerequisite: None)

ECE1311 - Infant-Toddler Development and Mental Health (3 Credits) This course provides an overview of infant-toddler theory and development whether in home or center-based settings. Students will gain knowledge of developmental needs, developmentally appropriate environments, effective caregiving, teaching strategies, and observation methods. (Prerequisite: ECE 1210)

ECE2310 - Introduction to Special Education (3 Credits) This course examines the development of children with differing abilities. Students will integrate strategies that support inclusive programs for children, apply legal and ethical requirements including, but not limited to, American Disabilities Act and Individuals with Disabilities Education Act. Differentiate between typical and atypical development, analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders. Explore strategies to adapt curriculum to meet the needs of children with developmental differences and cultivate partnerships with families. (Prerequisite: ECE 1210)

ECE2510 - ECE Internship - Instructor Permission Required (3 Credits) This course provides students an opportunity to demonstrate the early-childhood-teaching competencies explored in other classes while guided by a teacher in a licensed early-childhood program. These competencies include: developing active and developmentally appropriate environments accessible to the multiple needs of learners, positive behavior guidance strategies, communication skills, and development of professional skills such as communication and respectful interactions with families, colleagues, and other potential partners in the care and education of young children in their care. (Prerequisite: Instructor approval)

ECE2520 - Children with Challenging Behaviors (3 Credits) This course supports students' understanding of children's behavioral problems and identifies intervention strategies to prevent and resolve problem behaviors. Effective behavior modification techniques and designing behavior plans will be explored. (Prerequisites: ECE 1210 & ECE 1230)

ECE2530 - Curriculum Planning (3 Credits) This course provides an advanced level of curriculum planning. Emphasis is on organizing, implementing, and evaluating developmentally appropriate curricula. (Prerequisite: ECE 1270)

ECE2550 - Cognitive Development (3 Credits) This course provides an overview of cognitive and executive functioning experiences in home, school, or center-based settings. Students integrate knowledge of child development, learning environments, and teaching methods to promote curiosity, attention, perception, memory, problem solving, logical thinking, and executive functioning. (Prerequisite: ECE 1210)

ECE2560 - Introduction to Language and Literacy (3 Credits) This course is an introduction to children's language and literacy development from birth to age eight. Students will obtain skills in creating developmentally appropriate learning experiences that support both oral language and emerging literacy skills among children at all developmental levels. Students will be exposed to a wide range of instructional practices, approaches, methods, and curriculum materials to support children's language and literacy development. (Prerequisite: ECE 1210)

ECE2570 - Capstone (1 - 3 Credits) The course is designed to allow students to explore a deeper understanding within their area of emphasis in Early Childhood (e.g. Nature Studies, Mental Health, Trauma-Informed Practices) through research, service-learning, portfolio development, and reflective practice. Students will explore and demonstrate the actual applicability of the area of emphasis to the field of early childhood. Offered for variable credit (1-3 credits). (Prerequisite: Instructor Permission).

ECE2580 - Observation and Assessment (3 Credits) This course focuses on the appropriate use of observation and assessment strategies to document children's development, growth, play and learning, and to join with families and professionals in promoting children's success. The students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. There will be a focus on increasing objectivity in observing and interpreting children's behavior, observing development characteristics, and increasing the awareness of normal patterns of behavior. (Prerequisites: ECE 1210 and ECE 1230.)

ECE2590 - Introduction to Children's Mental Health (3 Credits) This course provides a deeper look at social-emotional learning experiences and the long-term effects of positive experiences. Students integrate knowledge of healthy child development, developmentally appropriate learning environments and trauma-informed teaching methods to promote positive emotional development, social development, self-concept, self-esteem, social skills, diversity awareness, resiliency, and attachment. (Prerequisite: ECE 1210 and ECE 1230)

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ECON - Economics

ECON110 - Principles of Macroeconomics (3 Credits) Macroeconomics is the study of issues that affect whole economies including economic growth, employment levels, management of the money supply, international trade, and economic instability. The course will examine tools governments can use to stabilize and grow economies, as well as controversies surrounding their use. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This class satisfies MnTC Goal Area 5 (History and the Social and Behavioral Sciences) and MnTC Goal Area 9 (Ethical and Civic Responsibility).

ECON120 - Principles of Microeconomics (3 Credits) Microeconomics is the study of how people, businesses, governments, and other institutions make economic decisions. Topics include market price determination, income determination, resource allocation, and impacts of government policies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) This course satisfies MnTC Goal Area 5 (Hist/Soc/Behav Science) and Goal Area 2 (Critical Thinking).

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ELWT - Wind Energy Fundamentals (MN West)

ELWT1100 - Wind Energy Fundamentals (MN West) (3 Credits) This course is offered through Minnesota West Community and Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

ELWT1170 - OSHA Standards and Climbing Lab (MN West) (2 Credits) This course is offered through Minnesota West Community and Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

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ENGL - English

ENGL0080 - English and Writing I (4 Credits) This course offers a review in the use, basic study, and review of the Standard English language and an introduction to writing essays. The course emphasizes the development of narrative, expository, and argument writing skills using a writing process that includes pre-writing, drafting, revising, and editing final drafts for proper spelling, punctuation, and grammar. Minnesota K-12 Academic Standards in Writing and Language are indicated in parentheses after each competency on the Common Course Outline. (Prerequisites: Next-Generation Accuplacer Reading score of 224 to 236 or Classic Accuplacer Reading score of 36 to 55 or MCA Reading score of 1041 or below.)

ENGL0085 - Writing and English I and II Modular (6 Credits) In this beginning and intermediate combination writing course, students practice basic grammar and sentence writing skills for two hours per week using a computer-based writing program. Students practice only the writing skills in which they are deficient. Deficiencies are identified by a diagnostic sentence skills test taken at the beginning of the course. While practicing basic sentence writing skills in a computer-based writing program, students concurrently expand and apply these writing skills in the intermediate section, ENGL 0090, which meets an additional four hours per week. The ENGL 0090 section takes place in a traditional classroom and utilizes writing textbooks, teacher instruction, and implementation of the writing process to apply the writing skills and concepts learned. Students must score 50-62 on the Reading Comprehension portion of the Accuplacer Test in order to enroll in this course. This course does not fulfill General Education requirements. Successful completion of this course is equivalent to successful completion of ENGL 0090. (Prerequisite: Must have a score of 50-62 on the Reading portion of the Accuplacer Test)

ENGL0090 - Writing and English II (4 Credits) This course consists of a review of Standard English grammar, including English usage, sentence structure, punctuation, grammar, and spelling. Students will also study the writing process as it applies to writing both paragraphs and essays. The final project of this class will consist of developing, writing, and editing a persuasive essay. (Prerequisite: Next-Generation Accuplacer Reading score of 237 to 249 or Classic Accuplacer Reading score 56 to 77 or completion of ENGL 0080 with a grade of C (2.0) or higher).

ENGL100 - Composition (4 Credits) Composition is concerned with developing, through theory and practice, the ability to communicate in written form for personal and professional reasons. Students will develop writing skills, analytic skills, and critical thinking skills. Students will complete readings, papers, grammar exercises, and in-class activities. Students will complete research and write a research paper. Students will learn methods of writing informatively and persuasively. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095 with a grade of C (2.0) or higher) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC 1: Communication)

ENGL110 - Introduction to Literature (4 Credits) Introduction to Literature allows students to sample various literary forms (plays, prose, poetry, nonfiction) from various histories and cultures. The course is designed to develop critical thinking, reading and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and the Fine Arts)

ENGL111 - Introduction to Film (4 Credits) This course is designed to introduce and acclimate students to film as a significant artistic, rhetorical and cultural medium. Course content focuses on film as an element of popular culture, as well as film genres, cinematic techniques and cinematic conventions. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MnTC 6: Humanities and Fine Arts)

ENGL115 - Global Peace and Social Justice (4 Credits) Using works of literature such as *War is a Force that Gives us Meaning* and *The Things They Carried*, this course provides an introduction to the nature, scope, and methodology of peace studies with a view toward the future. It explores the concept of peace, non-violent movements, and the resolution of conflict between individuals, groups, societies, and nations. It considers the relationships between social justice and economics, human psychology, governmental power, and religion as forces for war as well as forces for peace. (MNTC 9: ETHICAL AND CIVIC RESPONSIBILITY) (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

ENGL120 - Human Diversity in Literature and Film (4 Credits) This course introduces students to works of literature and film with a focus on understanding the literary and cinematic contributions made by under-represented peoples. The course is designed to develop critical thinking, reading, and writing skills, and increase appreciation of the diversity of human experience. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 7: Humanities and Fine Arts, Human Diversity)

ENGL130 - World Literature and Film (4 Credits) This course introduces students to works of literature and film from a variety of world cultures. The course is designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation and in seeing, believing, and being. The course emphasizes critical thinking, reading, and writing. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher). (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

ENGL140 - British Literature (4 Credits) This is a one-semester course for students who are interested in the development of English thought and language from the days of the Anglo-Saxons to the present time. Students will examine the historical context of the literature as well as particular authors, ideas, and styles. Class time will be devoted to reading, discussing, and analyzing selected groups of writings representative of major historical periods in the development of British writing. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL150 - Introduction to Poetry (4 Credits) This course introduces students to various elements of the genre of poetry, including (but not limited to) word choice, images, figures of speech, symbols, sounds, patterns of rhythm, and poetic forms. Students will use literary criticism techniques as they study poets and poems from many times, places, and movements of literature. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL160 - Introduction to Short Story (4 Credits) This course introduces students to the genre of short story and literary analysis. Students will examine literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. They will also study the authors and the influence of history and place on the short story form. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities and Fine Arts)

ENGL180 - Workplace Communication Skills (4 Credits) This class prepares students in technical and career programs to communicate with and within their workplaces and organizations, as well as with the public, through both oral and written communication. The class includes fundamental human communication and critical thinking skills along with practice in both oral and written communication. (Prerequisites: None) (MNTC Goal Area 1)

ENGL199 - Independent Study: Research and Writing (2 Credits) This course is designed to offer the student an opportunity to do extensive research on a specific topic. Students will complete research, write an in-depth research paper and put together a research portfolio. (Prerequisite: Instructor Permission)

ENGL205 - Special Topics in Literature & Film: (4 Credits) This course helps students understand how literature and film tell stories and create versions of history. Students will explore literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. Students will also study the individual cultures that generate the narratives covered in the class. (Prerequisite: None) (MNTC 6: Humanities and Fine Arts)

ENGL206 - Children's Literature (4 Credits) Children's literature provides a survey of literature for children, including its history and its place in contemporary society. The course introduces students to literature for children from birth to age 21, pairing literature with cognitive, emotional, and social development. Students will explore children's literature as real literature, examining literary concepts such as time, setting, place, narrative, plot, characterization, and literary device. We will also study how cultures generate narratives, and how children's literature can create its own version of history while reflecting its culture(s). (MNTC Goal Area 6 Humanities and Fine Arts) (Prerequisites: ENGL 100 or instructor permission)

ENGL210 - Introduction to Creative Writing (4 Credits) This course introduces students to the study of creative writing. Course content focuses primarily on reading several genres of writing (e.g., short story, poetry, non-fiction, and play/screenplay) and then practicing those forms and completing constructive critique of students' practice. (Prerequisite: ENGL 100 or instructor permission) (MNTC 6: Humanities and Fine Arts)

ENGL240 - Technical Communication (4 Credits) This course will teach the essential skills of technical communication. It is an introduction to written communication, design production, and design evaluation of technical information. The class emphasizes adapting technical material targeted for specific audiences while using a procedural writing style. Students complete rhetorical and audience analyses, document creation, electronic writing, collaborative writing, and usability testing. (Prerequisite: ENGL 100 or instructor permission) MNTC Goal Area 1 - Communication)

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ETEC - Energy Technical Specialist

ETEC2546 - Power Plant Technology (St. Cloud TCC) (4 Credits) This course is offered through St. Cloud Technical & Community College. Please refer to the course description located at the SCTCC website: www.sctcc.edu

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ETHN - Ethnic Studies

ETHN101 - American Racial Minorities (3 Credits) This course will introduce students to the importance and the understanding of the nature of race relations in the United States of America. Students will use the various sociological perspectives as a lens to examine the social construction of race, ethnicity and the evolving nature of race and ethnic relations in the U.S. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

ETHN110 - The Immigrant Experience (3 Credits) This course is devoted to understanding controversial issues around immigration to the U.S. The United States is an immigrant country. No other land can challenge America's claim as the ultimate melting pot, although we can argue about whether or not we have really "melted together" to form a cohesive society. Immigrants play a significant role in enriching American culture and fueling economic growth. Yet at the same time, they are also regarded as an "unsettling force" and a burden on the taxpayers. As the numbers of legal as well as illegal, immigrants have climbed precipitously since the 1970s and 1980s, we have seen a backlash against immigration.

Immigrants have always been a part of the American scene, but in some periods, more people have come than in others. Currently, immigration is a hot topic as many immigrants are coming from countries such as Somalia, Laos and Mexico. This course will explore questions such as: What is an "American"?; Where do "Americans" come from?; What kinds of immigration issues will affect the future of the United States?; What relevance does immigration have to my life? (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

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FBMA - Farm Business Management

FBMA2200 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in reducing potential risk, performing strategic planning, and revising business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs and goals. (Prerequisite: None)

FBMA2201 - Directed Studies-Current Issues in Farm Business Management (1 - 5 Credits) This course assists students to further develop their skills in business management. It provides an opportunity for students to identify current issues, maintain the financial and enterprise database, and generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, farm business plan development. This data also provides the basis for commodity market planning, and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. (Prerequisite: None)

FBMA2210 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time.) Student and instructor will determine credit load and current issue topic based on student need. (Prerequisite: None)

FBMA2211 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time.) Student and instructor will determine credit load and current issue topic based on student need. (Prerequisite: None)

FBMA2212 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time.) Student and instructor will determine credit load and current issue topic based on student need. (Prerequisite: None)

FBMA2213 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop student skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. Student and instructor will determine the number of credits between one and five and determine current issue(s) topic based on student's need. (Prerequisite: None)

FBMA2214 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to further develop student skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs.

Student and instructor will determine the number of credits between one and five and determine current issue(s) topic based on student's need. (Prerequisite: None)

FBMA2220 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students to further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in reducing potential risk, performing strategic planning, and revising business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs and goals.

FBMA2221 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time.) Student and instructor will determine credit load and current issue topic based on student need. (Prerequisite: None)

FBMA2222 - Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to investigate and apply tools that may be effective in improving risk management plans, strategic plans, and business plans in their farm business operations. Emphasis is placed on the research of business management alternatives to meet their business and personal needs. (Students may enroll in a range of one to five credits during each enrollment, depending on their individual needs at the time.) Student and instructor will determine credit load and current issue topic based on student need. (Prerequisite: None)

FBMA2223 - Directed Studies: Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. Student and instructor will determine the number of credits between one and five and determine current issue(s) topic based on student's need. (Prerequisite: None)

FBMA2224 - Directed Studies: Current Issues in Farm Business Management (1 - 5 Credits) This course is designed to assist students further develop their skills in business management. It provides an opportunity for students to maintain the financial and enterprise data base, to generate financial statements, business analyses, and financial projections required for risk management planning, strategic management planning, and farm business plan development. This data also provides the basis for commodity market planning and tax management planning. Emphasis is placed on the development and maintenance of farm business data, reports, and plans. Student and instructor will determine the number of credits between one and five and determine current issue(s) topic based on student's need. (Prerequisite: None)

FBMA2930 - Fundamentals of Financial Management as it Relates to Risk Management (3 Credits) This course is intended to enhance students' decision-making skills relating to business risk management. Students will investigate tools available to their business that would be effective in reducing potential risk for their operation. Emphasis will be placed on having the student research risk management options that will meet their business, family, and personal needs. (Prerequisite: None)

FBMA2931 - Applied Financial Management as it Relates to Risk Management (3 Credits) This course guides students in the application of concepts in financial management that can be used in the development of a business risk management program. The student will implement risk management tools that will assist in meeting business, family, and personal needs. (Prerequisite: None)

FBMA2932 - Fundamentals of Financial Management/Strategic Planning Emphasis (3 Credits) This course will enable students to identify the elements necessary to evaluate and create a strategic plan for the business, determining uses for the plan today and tomorrow and developing a plan to locate those team members necessary for strategic plan creation. (Prerequisites: None)

FBMA2933 - Applied Financial Management/Strategic Planning Emphasis (3 Credits) This course will provide practical application of strategic planning skills. Application skills will be practiced upon and applied to the student's business and business plan. (Prerequisites: None)

FBMA2934 - Fundamentals of Financial Mgmt/Business Plan Emphasis (3 Credits) This course will provide practical application of the business plan. Application skills will be practiced and applied as the student's business plan is prepared and implemented. (Prerequisite: None)

FBMA2935 - Applications in Financial Management/Business Plans (3 Credits) This course will provide practical application of the business plan. Students will utilize financial information and records to apply the business plan. (Prerequisite: None)

FBMA2936 - Directed Study: Decision Making (2 Credits) This course will examine the individual, family, and farm business decision-making processes with emphasis on upgrading and improving decision-making resources, tools and skills. Particularly, this course will lead the student to critically analyze information, applications, and implications of decision-making as it relates to their own situation. Students will evaluate their own decision-making process. (Prerequisites: None)

FBMA2937 - Directed Study: Communications (2 Credits) This course will assist the student in further acquiring and developing a higher level of communication skills. Students will review and evaluate various communication methods and techniques in dealing with and relating to individuals in both the public and private sector. Students will use this information in formulating an effective communication method and style. (Prerequisites: None)

FBMA2938 - Directed Studies: Modern Agricultural Tech (2 Credits) This course will deal with evaluating modern agricultural technological changes and determining if they fit into an individual's farming operation. (Prerequisites: None)

FBMA2939 - Directed Study: Enterprise Alternatives (2 Credits) This course will assist those students wanting to make changes in their farm business through enterprise expansion, addition, enhancement or elimination. The course will develop a set of procedures for exploring and evaluating alternative choices. (Prerequisites: None)

FBMA2940 - Directed Studies: Farm Business Family Transition (2 Credits) Students will study the many aspects of farm business and/or family transition which occur in the typical farm business. Both estate planning and transition planning will be explored. (Prerequisites: None)

FBMA2941 - Directed Study: Personnel Management (2 Credits) Students will organize skills for effective management of farm employees and agribusiness personnel through development of handbooks, compensation/incentive packages, individual expectations/evaluations, and team meetings. (Prerequisites: None)

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FBMT - Farm Business Management

FBMT1112 - Foundations for Farm Business Management (4 Credits) This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course. (Prerequisites: None)

FBMT1121 - Preparation for Farm Business Analysis (4 Credits) This course will take the student through a step-by-step procedure to close out a complete year of farm business records. This course will emphasize tax planning, completing inputs to livestock and crop enterprises, and emphasizing cash and liabilities accuracy. A completed business and enterprise analysis will be the course focus. (Prerequisites: None)

FBMT1122 - Implementing the System Management Plan (4 Credits) This course continues to build on the foundation of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component. (Prerequisites: None)

FBMT1131 - Managing and Modifying Farm System Data (4 Credits) This course will help students refine their farm business data system and assist them in applying year-end procedures for farm business analysis. Students improve accuracy in the following areas: farm enterprise analysis, tax planning, data filing, and cash and liability checks. (Prerequisites: None)

FBMT1132 - Interpreting and Using Farm System Data (4 Credits) This course provides an opportunity for the student to view the farm business and its various components through the application of balance sheets, farm personal and managerial inventories, enterprise reports and historical data. (Prerequisite: None)

FBMT1170 - Intro to Farm Commodity Marketing (3 Credits) This course is designed to introduce the various methods and tools to market farm commodities. Students will study types of marketing contracts, cash markets, the role of brokers and market advisors, and the importance of insurance. (Prerequisites: None)

FBMT1173 - Directed Study-Intro to Farm Commodity Marketing (2 Credits) This course provides the student with the opportunity to use the various marketing methods and tools. The students will use various types of marketing contracts and cash markets as well as recognize the roles of brokers and market advisors. (Prerequisite: None)

FBMT1180 - Applying Commodity Marketing Fundamentals (3 Credits) This course is designed to teach students the various methods and tools to market farm commodities. Students will utilize various marketing tools to enhance their farm business operations. (Prerequisite: None)

FBMT1183 - Directed Study-Appling Commodity Marketing Fundamentals (2 Credits) This course is designed to teach students to apply the various methods and tools to market farm commodities. The students will develop various marketing tools to enhance their farm business operations. (Prerequisite: None)

FBMT1190 - Evaluating Farm Commodity Marketing Tools (3 Credits) This course is designed to justify current farm commodity marketing plans. Emphasis will be placed on current market conditions and pricing opportunities. The student will prioritize and evaluate marketing opportunities and risk. (Prerequisite: None)

FBMT1193 - Directed Study-Evaluating Farm Commodity Marketing Tools (2 Credits) This course is designed to teach students to implement the various farm marketing tools and to select the tool appropriate to the present marketing situation. The student will utilize marketing alternatives and apply to farm business marketing. (Prerequisite: None)

FBMT1211 - Intro to Farm Business Management (4 Credits) This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning. (Prerequisites: None)

FBMT1223 - Using System Analysis in Total Farm Planning (2 Credits) This course enables study of concepts related to farm business analysis, and exploration of possible implications and/or solutions to these concepts. A systematic method to assess farm business strengths and weaknesses based on the analysis will be used. (Prerequisites: None)

FBMT1233 - Application of Productive Enterprise Information (2 Credits) This course describes procedures for applying enterprise information provided by computerized analysis of farm business accounts. (Prerequisites: None)

FBMT2141 - Interpreting and Evaluation of Financial Data (4 Credits) This course continues to expand on preparation and evaluation of the farm business analysis, providing guidance towards mastery of business record close-out procedures, tax implications of management decisions, and the monitoring of farm business and family goals. (Prerequisites: None)

FBMT2142 - Interpreting Trends in Business Planning (4 Credits) This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data is compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure. (Prerequisites: None)

FBMT2151 - Strategies in Farm System Data Management (4 Credits) This course will help the student focus on long-term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by developing an accurate, usable business analysis. (Prerequisites: None)

FBMT2152 - Integrating System Information for Financial Planning (4 Credits) This course uses farm system information to develop a farm financial plan. Interpretation and analysis of the farm system data will enhance the reliability of the farm plan. The comprehensive farm plan will integrate historical trends, farm and personal goals, and financial and enterprise performance of the farm business. (Prerequisites: None)

FBMT2161 - Examination of the Context of Farm System Management (4 Credits) This course is designed to assist students in preparation of improved farm system management procedures. Students in the course will evaluate several years of an improved farm system analysis. (Prerequisites: None)

FBMT2162 - Refining Farm System Management (4 Credits) This course is the culmination of activities designed to enable the student to develop and implement a comprehensive farm business strategic plan. The student will use the components of the Farm Business Management Program to develop and support a farm business strategic plan. (Prerequisites: None)

FBMT2170 - Monitoring Farm Commodity Marketing Plans (3 Credits) This course is designed to help students revise current farm commodity plans. Emphasis will be placed on current market conditions and pricing opportunities. The student will prioritize and evaluate marketing opportunities and risk. (Prerequisite: None)

FBMT2173 - Directed Study-Monitoring Farm Commodity Marketing Plans (2 Credits) This course is designed to justify current farm commodity marketing plans. Emphasis will be placed on current conditions and pricing opportunities. The student will prioritize and evaluate marketing opportunities and risk. (Prerequisites: None)

FBMT2180 - Strategies in Farm Commodity Marketing (3 Credits) This course is designed to plan marketing strategies necessary to achieve farm business. The student will create a year-round marketing plan utilizing a variety of marketing strategies to maximize farm income return. (Prerequisites: None)

FBMT2183 - Directed Study-Strategies in Farm Commodity Marketing (2 Credits) This course is designed to plan marketing strategies necessary to achieve farm business. The student will implement a year-round marketing plan utilizing a variety of marketing strategies to maximize farm income return. (Prerequisite: None)

FBMT2200 - Special Topics in General Farm Management (1 Credit) Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2201 - Special Topics-General Farm Management (1 Credit) Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2202 - Special Topics-General Farm Management (1 Credit) Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2203 - Special Topics-General Farm Management (1 Credit) Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2204 - Special Topics-General Farm Management (1 Credit) Analysis of special topics in crop production for students actively engaged in the operation and management of a farm business. (Prerequisites: None)

FBMT2205 - Special Topics-General Farm Management (2 Credits) This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2206 - Special Topics-General Farm Management (2 Credits) This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2207 - Special Topics-General Farm Management (2 Credits) This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2208 - Special Topics-General Farm Management (2 Credits) This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2209 - Special Topics-General Farm Management (2 Credits) This course focuses on the analysis of special topics in general farm management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Tax planning, balance sheet development, cash flow planning, analysis-whole farm, enterprise analysis, record keeping, bench marking, production yields, ration interpretation and goal setting. (Prerequisites: None)

FBMT2210 - Special Topics-Marketing (1 Credit) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2211 - Special Topics-Marketing (1 Credit) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2212 - Special Topics-Marketing (1 Credit) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2213 - Special Topics-Marketing (1 Credit) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2215 - Special Topics-Marketing (2 Credits) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2217 - Special Topics-Marketing (2 Credits) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2218 - Special Topics-Marketing (2 Credits) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2219 - Special Topics-Marketing (2 Credits) This course focuses on the analysis of special topics in marketing management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best fit student needs: Small grains, corn, soybeans, pork, cattle, milk, canola, edible beans, vegetable crops, sugar beets, grass seed, forages, seed crops, wild rice, sunflowers, other commodities not listed and organic products. (Prerequisites: None)

FBMT2220 - Special Topics-Crops (1 Credit) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2221 - Special Topics-Crops (1 Credit) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2222 - Special Topics-Crops (1 Credit) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2223 - Special Topics-Crops (1 Credit) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2224 - Special Topics-Crops (1 Credit) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2225 - Special Topics-Crops (2 Credits) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose from said topics to best serve student needs: Corn, soybeans, alfalfa, mixed grass, small grains, specialty crops (sunflower, berries, seeds, trees, etc.), pasture, corn silage, cover crops and vegetable crops. (Prerequisites: None)

FBMT2226 - Special Topics-Crops (2 Credits) This course focuses on the analysis of special topics in crop management for students actively engaged in the operation and management of a farm business. Student and instructor will choose

FBMT2253 - System Plans and Projections (2 Credits) This course enables the combination of concepts for preparing farm system plans and projections, and the interaction of possible implications and/or solutions of these concepts. (Prerequisites: None)

FBMT2310 - Environmental Interactions in Agriculture (2 Credits) This course will examine a variety of environmental issues related to agriculture and suggested ways in which to address the issues. (Prerequisites: None)

FBMT2325 - Ethics in this Business of Agriculture (2 Credits) This course will explore various ways in which a farm business conducts business and address their proper conduct. (Prerequisite: None)

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FCS - Family & Consumer Science

FCS105 - Nutrition and Healthy Living (3 Credits) This course provides an overview of basic principles of nutrition. Topics include contemporary issues such as food labeling, dieting practices, eating disorders, fitness, malnutrition, and nutrition throughout the life cycle. This course also focuses on the knowledge and skills necessary for the development and enhancement of a healthy lifestyle throughout the life span. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

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Course Descriptions

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FYE - First Year Experience

FYE100 - First Year Experience (1 Credit) First Year Experience is a course created to support students making the transition to college, to empower students to take control of their educational lives, and to help students be successful. The course will promote the development of critical thinking skills and positive educational values. Students will enhance their understanding of communication and learning styles, and lifestyle risks; learn to identify and use appropriate resources both on campus and within the community; acquire skills needed to promote study, personal wellness, goal setting and achievement; develop strategies to manage money, time and stress wisely; and in general develop the necessary skills to be a successful college student. (Prerequisite: None)

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GCC - Graphic Communications

GCC1100 - Introduction to Graphic Communications (4 Credits) This is an exploratory course covering many aspects of Graphic Communications. Hands-on projects will acquaint the learner with the various processes that encompass what graphic communications means to the general population. History of graphic communications, industry jargon, industry tours and guest speakers are also part of this course. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading Score 36 or higher or MCA Reading score of 750 or higher)

GCC1120 - Graphic Software 1 (4 Credits) This course will be taught in a hands-on atmosphere, learning the basics of various software packages used within the industry. Students will work with the tools, menus and panels, and integrate the use of the software for print and non-print outputs. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA score of 750 or higher)

GCC1130 - Layout and Typography (3 Credits) Students will be introduced to the conceptual planning process used in layout and design. Students will understand that type as well as graphics are important design elements of a layout. It will be demonstrated how type interacts with graphics in a layout. Layout principles, color, proofing and preparing literature for output and printing will also be included in this course. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1141 - Digital Image Exploration (3 Credits) This course is designed to cover basic topics which include input/output hardware and the software involved; basic scanning of graphics and photographs; basic digital camera usage; and file formats, size and resolution comparisons. Additionally, students will cover the basics of color theory and color management with practical knowledge for print and web. This course is taught in a hands-on atmosphere with the emphasis on the different methods of output to various devices and their effect on the digitized image. (Prerequisites: Next Gen Accuplacer Reading score of 224 or higher, or Classic Accuplacer Reading score of 36 or higher or MCA Reading score of 750 or higher)

GCC1145 - Color Applications and Digital Tools (3 Credits) This course is designed to cover basic topics which include input/output hardware and the software involved: basic scanning of graphics and photographs; basic digital camera usage; and file formats, size and resolution comparisons. Additionally, students will cover the basics of color theory and color management with practical knowledge for print and web. The course is taught in a hands-on atmosphere with an emphasis on the different methods of output to various devices and their effect on the digitized image. (Prerequisites: Next Gen Accuplacer Reading score 224 or higher, or Classic Accuplacer Reading score 36 or higher or MCA Reading score of 750 or higher)

GCC1215 - Drawing Foundations for Graphic Communications (3 Credits) This course covers basic drawing fundamentals and the use of drawing as a planning tool. Basic drawing techniques will be used to create thumbnail sketches, comprehensives and digital illustrations. Students will utilize traditional and computer drawing tools. (Prerequisite: GCC 1120)

GCC1220 - Graphic Software 2 (4 Credits) Graphic Software 2 is a continuation of GCC 1120 Graphic Software 1. The course is taught in a hands-on atmosphere learning more advanced features of the page layout, vector and raster softwares. Students should already have the fundamentals of the tools, menus and panels within each of the software packages. More advanced topics, interactive features and animation software will be explored. (Prerequisite: GCC 1120 Graphic Software 1)

GCC1260 - Printing Processes (4 Credits) This course is designed to acquaint the learner with the fundamentals of printing ink on various substrates. Coursework includes terminology, equipment and safety. The principles of offset lithography, screen, laser and inkjet printing are stressed in a hands-on laboratory atmosphere. Basic prep and post-press processes are also stressed in this course. (Prerequisites: GCC 1120 Graphic Software 1, GCC 1130 Layout and Typography)

GCC2110 - Design and Illustration 1 (4 Credits) Students will learn planning procedures for advanced design, illustration and production principles on the board and in the use of various software. Projects may include brochure, package and logo design, variable data layouts, product photography planning, and preparing social media content. Color, preflight, output and live industry work will also be covered in this course. The advanced use of industry-used software will be essential in all assignments. (Prerequisites: GCC 1210 OR GCC 1215 AND GCC 1220)

GCC2120 - Portfolio 1 (3 Credits) Students will design personal business logos and stationery ensembles which will include stationery, cover letters and resumes. Traditional portfolio page layouts will be designed and revised throughout the semester. Student work will be prepared for display in their portfolios. (Prerequisite: GCC 1220 Graphic Software 2)

GCC2150 - Web/Interactive Media 2 (3 Credits) This course covers the basic preparation, planning and software used for multimedia and web presentation. Students will learn planning procedures for web and interactive media. These procedures will include planning flowcharts, wireframes and storyboards. Students will also learn file formatting and file preparation for web and interactive media. (Prerequisites: GCC 1220 and COMP 1140)

GCC2161 - Production Work Flow 1 (3 Credits) This course is designed to introduce the Graphic Communications student to the workplace through tours, live projects, and special topics. Students will perform production tasks of design work of the student and/or live work of a customer within the college or non-profit entities within the community. These hands-on projects will incorporate all phases of graphic communications from design to workflow to production and finishing. Emerging technology and topics will also be discussed and researched as part of this course. (Prerequisites: GCC 1220 and GCC 1260)

GCC2210 - Design and Illustration 2 (4 Credits) This course is a continuation of GCC 2110 Design and Illustration 1. Students will work in a hands-on atmosphere with higher-level projects such as packaging layouts, multi-page layouts and

large format printing. The advanced use of industry-used software will be essential in all assignments. (Prerequisite: GCC 2110)

GCC2220 - Portfolio 2 (3 Credits) Students will continue to research potential employment sites and prepare for the interviewing process in the graphic communications field. The students will continue to research, update and expand their portfolios with projects from other Graphic Communications courses as they prepare for graduation and entering the job market. (Prerequisite: GCC 2120 Portfolio 1)

GCC2250 - Web/Interactive Media 3 (3 Credits) This course builds on the course work covered in GCC 2150. The capabilities of different web and interactive applications will continue to be explored. Students will finalize their webfolios, and design other various promotional web and interactive projects. (Prerequisite GCC 2150 Web/Interactive Media 2)

GCC2261 - Production Work Flow 2 (3 Credits) This course is a continuation of GCC2161 - Production Work Flow 1. Students will work on production projects that will incorporate all phases of graphic communications from design to workflow to production to finishing. Fourth semester Graphic Communications students prepare materials to promote their annual spring display of work through various communication methods. Students continue to formulate their problem-solving, team-building and lifelong learning skills through this course. (Prerequisites: GCC 2161)

GCC2275 - Special Problems (1 - 4 Credits) The student will propose and produce a project in their area of interest. (Prerequisite: GCC 1220 Graphic Software 2 OR advisor approval)

GCC2290 - Graphic Communications Internship (1 - 3 Credits) This course is designed to provide the student with a purposeful occupational experience in the Graphic Communications field. Each internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. One credit of Internship is equal to 48 hours. (Prerequisites: GCC 1210 Drawing for Graphic Designers OR GCC 1215 Drawing Foundations for Graphic Communications; GCC 1220 Graphic Software 2; and GCC 1260 Printing Processes; OR advisor approval)

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GEOG - Geography

GEOG100 - Elements of Geography (3 Credits) The course will answer the question "What is Geography?" Therefore, this course provides students with an introduction to the basic themes of geography. The scope and nature of geographic inquiry is used to explore topics about the physical and human characteristics of the Earth's surface. Special emphasis is placed on the significance of humans, environment, and cultural processes in the organization of space on the earth's surface. Natural and cultural landscapes are very important components of this course and students will examine physiographic regions, climates, demography, and urban areas. Also, different environmental issues will be discussed. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History/Social & Behavioral Sciences, Global Perspective)

GEOG101 - Introduction to Physical Geography (3 Credits) This course is an introduction to physical geography that systematically examines the spatial patterns and interrelationships among physical elements at the earth's surface. Students will study the earth's physical environment, its systems, and the physical processes that drive them through study of weather, climate, natural vegetation, soil, and landforms. However, these topics are not just discussed independently since the course concentrates on understanding the integration of these areas of the natural world. Geography focuses on human activities, and so the course will highlight some of the basic interactions between human activity and the natural environment. Current issues will be discussed and a scientific foundation provided for understanding global warming and other critical environmental issues. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & the Environment)

GEOG103 - Introduction to Cultural Geography (3 Credits) This course is an introduction to cultural geography through the study of global patterns of many aspects of human culture, including population, migration, folk and popular culture, language, religion, ethnicity, political geography, development, agriculture, industry, services, urban patterns, and resource issues. Students will examine all of these and several other issues during the semester. Students will stress the variation

in the cultural landscape and critically analyze several current problems facing modern society, such as overpopulation and differences between societies. Cultural geography is focused on those things that are human-created. Therefore, the basic theme addressed throughout the course will be to discover where and why human activities are located where they are found. Students will participate in the discussions and will exchange ideas that will help them to better understand the diversity of the cultural landscape and the similarities and differences between different social groups. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

GEOG104 - Introduction to Weather and Climate (3 Credits) This course will serve as an introduction to the basic atmospheric processes described as weather. Topics including atmospheric pressure, winds, temperature patterns, humidity and precipitation, and severe weather phenomena will be examined. The spatial distribution of global climates and climate change will also be explored. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 3, 10: Natural Sciences, People & The Environment)

GEOG200 - Special Topics in Geography: (3 Credits) Students will explore a region to learn its unique characteristics and how its physical geography and human geography are closely linked within that region. The focus will be on real-world and hands-on activities that will use an inquiry-driven approach to learning. When applicable, geographic tools, such as GIS (Geographic Information Systems), remote sensing, and map skills, will be presented. The course will have a research component. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History & Social & Behavioral Sciences)

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Course Descriptions

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GIS - Geographic Information Systems

GIS2840 - Introduction to Geographic Information Systems (4 Credits) This course covers the theory and use of computer software for the collection, analysis, and communication of geographic information. This course will use ArcGIS software, which was developed by Environmental Systems Research Institute, Inc. (ESRI) as a tool to create, manage and manipulate spatial data within a GIS. (Prerequisite: None)

GIS2841 - Intermediate GIS (4 Credits) This course is a continuation of CTLS 2840 Introduction to Geographic Information systems, with emphasis placed on continued learning of the manipulation, and management of spatial data, and understanding of relationships between features and database attributes. In addition, this course will cover the development of web mapping components that can be used to communicate information to those who need access to spatial data via the internet. The primary software used in this course will be (Environmental Systems Research Institute, Inc.) ESRI ArcGIS Software and extensions. (Prerequisite: GIS 2840)

GIS2842 - Field Mapping with GPS (4 Credits) This course covers the strategies of using mapping grade and survey grade GPS equipment and software to electronically collect spatial features for use in the development of GIS and CAD projects. (Prerequisite: GIS 2840 or consent of the Instructor)

GIS2843 - GIS Practicum (1 - 4 Credits) This variable credit course expands upon the knowledge students gained in previous geospatial technology courses and serves to hone their GIS skills. Students will have the opportunity to design, develop, and implement a GIS-based solution in response to a defined problem and present their results. (Prerequisite: GIS 2841 or instructor consent)

GIS2844 - GIS Internship (1 - 4 Credits) This variable credit course is one of the capstones of the GIS certificate program, where upon the students are provided a real world working atmosphere with area partners, such as state, county, and local governments, and consulting agencies. Students in this course work on assignments as requested by the governing agency and will be directed by the course instructor. (Prerequisite: GIS 2841 or consent of the Instructor)

GIS2845 - Introduction to Remote Sensing (4 Credits) This course will introduce students to the basic concepts and fundamentals of remote sensing. Digital image processing techniques and aerial photo interpretation will be reviewed and applied to practical problems through the use of various lab activities. (Prerequisite: None)



GST - Global Studies

GST100 - Introduction to Global Studies (3 Credits) This interdisciplinary course develops a basic understanding of the history of globalization, its most pressing current issues, and its advantages and disadvantages. Students will examine the growing interdependence of nations and the migration of peoples and the key issues of power and inequality that affect these relationships. Students will develop cross-cultural understanding and global and regional perspectives through interactive talks and activities involving a variety of topics related to the tension between global homogenization and hegemony vs. global diversity and equality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090, READ 0095 or EAP 0090 with a grade of C (2.0) or higher or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas: 5 and 8).

GST250 - Global Studies Practicum (1 Credit) The purpose of the Global Studies Practicum is to provide students earning a Global Studies Certificate an opportunity to synthesize, integrate, and apply competencies from their coursework to a meaningful experience. The course consists of 12 hours or more of hands-on, experiential learning and 4 hours or more of consultation and supervision from an SCC instructor. The Global Studies Practicum is required in order to receive the Global Studies Certificate and it is recommended you take this course in your final semesters at SCC. As part of the practicum, students will engage in experiential activities, will keep a written record of or otherwise document their experience, and will complete a project that demonstrates their understanding of global issues and their role as global citizens. The details of the project are to be decided between the student and the instructor. Experiences for which a student has or will already receive academic credit cannot be counted. Examples of appropriate projects include, but are not limited to: 1. Engaging in approved overseas educational travel or international volunteering or internship; 2. Hosting international visitors; 3. Participating in and helping to organize and carry out multicultural or international student activities, including student clubs and/or the Global Connections Conference; 4. Volunteering in local immigrant and refugee community organizations and support organizations; 5. Volunteering as a tutor in the EAP program or local ABE/ESL programs, or volunteering as a tutor in Spanish, ASL, or Somali courses at SCC. An additional site supervisor may be required. Each student must find an instructor who agrees to work with them to design their practicum and oversee their practicum on an independent study basis. The final project will be shared with the Global Education Committee. (Prerequisites: Completion of GST 100 with a grade of C (2.0) or above, or permission of instructor.) (MNTC Goals 8 & 9).



HC - Health Core

HC1000 - Medical Terminology (3 Credits) This course is an introduction to the language of medicine that is used in the health care profession. The student will learn to spell, pronounce, define, and interpret medical terminology related to body structure, disease, diagnosis, and treatment. (Prerequisites: None)

HC1001 - Advanced Medical Terminology (3 Credits) This course is the continuation of HC 1000. Review of medical terminology as it pertains to the body systems that were covered previously with emphasis on developing an understanding of the pathological terminology used in the language of medicine. Specialty areas within the allied health professional fields of respiratory therapy, physical therapy, pathology, radiology, anesthesia, pharmacology, and others will be introduced. (Prerequisite: HC 1000)

HC1500 - Healthcare Foundation: Introduction to Health Careers (1 - 3 Credits) This course will focus on the requirements needed by healthcare workers to effectively work in a variety of healthcare settings with a diverse population of clients. Students will explore workplace skills such as accountability and responsibility, standard of dress, workplace behavior, approaches to assist clients, and expectations of teams and team members. Also included is discussion about

how healthcare workers can impact the quality of health care and balance their work and personal life to maintain personal wellness. In addition, students will examine the emotional, spiritual, and social needs of clients as well as the type of care needed by different populations. The course also provides a framework for healthcare workers to interact with diverse clients and staff. Included are belief systems, cultural practices, and respect and sensitivity to cultural, gender, and age issues. (Prerequisite: None)

HC1510 - Special Topics in Healthcare (1 - 3 Credits) Special Topics in Healthcare will help students understand how various healthcare trends, policies, and procedures impact providers, healthcare professionals, and patients. Students will explore a broad range of healthcare concepts through specific topics of relevance. The instructor has chosen subject matter that relates to today's healthcare trends in areas such as technology, government and institutional policies, education, and treatment practices. This course is a variable credit course to accommodate the credit needs of the student in various healthcare programs. (Prerequisite: None)

HC1515 - Special Topics in Healthcare II (1 - 3 Credits) This course is a continuation of HC 1510 - Special Topics in Healthcare. Students will continue to explore how various healthcare trends, policies, and procedures impact providers, healthcare professionals, and patients. Students will explore a broad range of healthcare concepts through specific topics of relevance. The instructor has chosen subject matter that relates to today's healthcare trends in areas such as technology, government, and institutional policies, education, and treatment practices. This course is a variable credit course to accommodate the credit needs of the student in various healthcare programs. (Prerequisites: HC 1510)

HC1525 - Health Care Core Foundations (1 - 4 Credits) This variable credit course will focus on the requirements needed by healthcare professionals to effectively work in a variety of healthcare settings and explore workplace skills such as accountability and responsibility, workplace behavior, approaches to assist clients, and expectations of teams and team members. This course provides a framework for healthcare workers to interact with diverse clients and staff, including belief systems, cultural practices, and respect and sensitivity to cultural, gender, and age issues. Identifying elements of communication and how those elements can develop into effective communication within the healthcare setting is a key focus, as well as learning when and how to utilize those skills in challenging situations. Health care ethics will be addressed and target ethical decision-making and personal and professional values. Legal issues in healthcare will round out the course, concentrating on healthcare laws and social media in healthcare. Healthcare safety and standards precautions will be incorporated, as well as personal wellness for the healthcare professional. This variable credit course was designed as a part of the Minnesota Health Care Core Curriculum. (Prerequisites: None)

HC1550 - Electronic Health Records (2 Credits) With the implementation of the electronic health record in today's healthcare environment, it's essential for students entering the healthcare field to understand this technology and how it relates to work in the industry. This course is designed as an introduction to the history of Electronic Health Records (EHRs) and concepts behind the structure of electronic medical recording systems. Additionally, it will provide students the opportunity to use multiple functions of an educational electronic health record. (Prerequisites: None)

HC1914 - Anatomy & Physiology/Disease Conditions I (4 Credits) This course is designed to provide two approaches to assist the student in learning about the human body. The first is in developing a basic understanding of the normal structure and function of the human body and secondly to discuss disease processes that affect each body system. (Prerequisite: HC 1000)

HC1920 - ICD-9-CM Coding I (3 Credits) This course is the first in the introduction of the coding rules and conventions for coding diseases and procedures and in-depth study of ICD-9-CM. This system is used in all health care facilities for diagnosis and in hospitals for coding of procedures. (Prerequisite: None)

HC1924 - Anatomy & Physiology Disease Conditions II (4 Credits) This course is a continuation of HC 1914 Anatomy/Physiology/Disease Conditions I with emphasis on the pathophysiology of the human body. The student will apply previous knowledge in medical terminology and structure and function of the human body. This course prepares the student in understanding the abnormalities and diseases that affect the organs and organ systems. (Prerequisites: HC 1914, 1000)

HC1925 - ICD-9-CM Coding II (3 Credits) This course is a continuation of HC 1920. The course covers the ICD-9-CM diagnostic and procedural coding in depth for both inpatient and outpatient facilities. It compares the reimbursement systems and for both facilities and introduces the compliance plans for both facilities and is a continuation of the coding conventions for inpatient and outpatient settings. (Prerequisites: HC 1000, 1920)

HC1928 - CPT Coding I (3 Credits) This course is the introduction of CPT coding and provides an in-depth review of the coding and reimbursement system used in outpatient facilities and physician billing. The course reviews all CPT sections and sub-sections. The student will learn the importance of physician documentation and impact of CPT coding on reimbursement and for both the medical facility and the physician. The student will gain knowledge of medical procedures and services and the importance of understanding medical terminology. (Prerequisite: HC 1000)

HC1930 - ICD-9-CM Coding III - CPT Coding II (4 Credits) This course is a continuation of HC 1920, 1925, 1928 with an emphasis on coding ICD-9-CM and CPT for physician billing/outpatient facilities and in-patient discharges. It combines all previous coding experiences with regard to reimbursement and compliance for Diagnosis Related Groups (DRG's) and the Relative Based Resource Value Scale (RBRVS). The course provides for coding experience in mental health facilities

(cross-walk with DSM-IV), long-term facilities, and Ambulatory Surgery Centers (ASC's). (Prerequisites: HC 1000, 1001, 1914, 1920, 1925, 1928, 2930)

HC1934 - Trained Medication Aide (2 Credits) This course includes the study of legal requirements concerning drugs in the medication administration process of the Trained Medication Aide (TMA). Information for oral and topical medications are studied. The medication administration process is applied to know drug action, usual doses, undesired effects, and special considerations for a variety of drugs associated with body systems. Terminology related to medication administration and reference sources (drug books) are used. Students will not administer medications to real clients but will learn basic guidelines for medication administration and practice using manikins. This course will include online content and laboratory practice to promote safe medication administration. (Prerequisite: Current in the Minnesota Department of Health Nursing Assistant Registry and must be 18 years old)

HC2025 - Culturally Competent Care (3 Credits) Intended for students pursuing healthcare careers, this course explores the cross-cultural interactions of healthcare professionals and patients of various cultural, racial, ethnic, socioeconomic, and otherwise diverse populations, helping students to understand the importance of the cultural dimensions of the communities in which they live and work. This course prepares students to apply cultural competency to their practice in healthcare professions.

HC2930 - Introduction to Health Care/Health Information (4 Credits) This course reviews the evolution of health care and the health insurance industry. The course will introduce the types of healthcare facilities and discusses concepts of healthcare finance. The student will gain knowledge of the major types of healthcare insurance, medical record systems, confidentiality, and the legal aspects of medical records and health care. The course reviews medical documentation and the standardization of forms used in the health record and will review both manual and electronic medical records (EMR) and how each provides the documentation of care provided to patients. (Prerequisites: None)

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HCTC - Nursing-Nursing Assistant

HCTC1886 - Nursing Assistant (4 Credits) This 4 credit course meets federal and state criteria for eligibility to take the state test to become a NA, R/HHA. It introduces concepts of basic human needs, the health/illness continuum and focuses on preparing the student to safely perform basic nursing skills needed to function as a Nursing Assistant or Home Health Aide. (Prerequisites: None)

HCTC1889 - Nursing Assistant Theory (3 Credits) This course meets federal and state criteria for eligibility to take the state test to become an NAR (Nursing Assistant, Registered). Additionally, the course meets the requirements for Basic Nursing 101, a prerequisite for the Practical Nursing Program. It introduces the concepts of basic human needs, the health/illness continuum and focuses on preparing the student to demonstrate basic nursing skills needed to function as a Nursing Assistant. After completion of HCTC 1889, the student is eligible to take the CNA (Certified Nursing Assistant) test to gain certification. Upon successful completion of the test, the student will be placed on the Minnesota Nursing Assistant Registry. The student in this course is NOT eligible to take the test for HHA (Home Health Aid), since it is not part of instruction in this course.

HCTC1890 - Home Health Aid/Homemaker (1 Credit) This course prepares students to be eligible for employment at a home health agency, public health or assisted living facility. Successful completion prepares the student to practice at the Home Health Aide/Homemaker (HHA) level. Completion of the Minnesota Department of Health Nursing Assistant course is required before enrollment into the HHA course because this course builds upon knowledge gained from the Nursing Assistant course. The student will demonstrate a basic understanding of infection control; basic human needs; communication; personal cares; legal issues and care across the lifespan as it pertains to the home health setting. Upon satisfactory completion of the Home Health Aide course, the student is eligible to take the federal Home Health Aide Exam. (Prerequisites: Satisfactory completion of the Minnesota Department of Health Nursing Assistant course. 18 years of age or older)

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HEMS - Emergency Medical Services

HEMS1200 - Emergency Medical Technician Initial (160 Hours) (7 Credits) This course will provide the participant the necessary didactic and cognitive skills to enter the Basic Life Support Ambulance occupation arena as an EMT. Upon successful completion of this course the participant will be able to take the National registry of Emergency Medical Technician written and practical examination, administered by the Minnesota EMS Regulatory Board. The course follows the guidelines established by the United States Department of Transportation and meets the requirements set forth by the Minnesota EMS Regulatory Board. This course is a requirement to progress into the Intensive Care Paramedic Program of study. (Prerequisite: Student must be 18 years of age by the start of the course.)

HEMS1202 - EMT Practical Skills Review & Exam (1 - Credits) This course is designed for second year paramedic students who are using the 48 hour EMSRB continuing education option for recertification. This course will review the basic skills for the EMT practical exam and also test those skills.

HEMS1220 - Emergency Medical Technician Refresher (24 Hours) (2 Credits) This course will provide the participant the necessary didactic and cognitive skills to continue in the Basic Life Support Ambulance occupation arena as an EMT. Upon successful completion of this course, the participant will be able to take the practical examination administered by the Minnesota EMS Regulatory Board. The course follows the guidelines established by the guidelines established by the United States Department of Transportation and meets the requirements set forth by the Minnesota EMS Regulatory Board.

HEMS1300 - First Responder Initial (48 Hours) (2 Credits) This 48-hour course provides emergency care training to fire/rescue personnel, law enforcement officers, industrial safety personnel, especially when they are the first on the scene of injuries and medical problems. The course is approved by the Minnesota EMS Regulatory Board and Post-Board approved. As a result of 1999 Minnesota Legislation, prospective First Responder students who have committed misdemeanors, gross misdemeanors or felonies may not qualify to be certified as First Responders. (Prerequisite: None)

HEMS1320 - First Responder Refresher (16 Hours) (1 Credit) This course is designed to provide the First Responder at the scene of a medical emergency the necessary knowledge and skills to manage patient care until the arrival of ambulance personnel. This course is for individuals who are currently First Responders needing to refresh to maintain certification. This course meets or exceeds the guidelines set forth by the United States Department of Transportation and the Minnesota EMS Regulatory Board.

HEMS1321 - First Responder Refresher (16 Hours) (1 - Credits) This 16-hour course provides refresher training for state certified First Responders who need to refresh every two years. It is intended as an update on revised emergency care skills and techniques for recertification. The course is approved by the Minnesota EMS Regulatory Board and Post-Board approved. Certification is recognized for a two-year period. As a result of 1999 Minnesota Legislation, prospective First Responder students who have committed misdemeanors, gross misdemeanors or felonies may not qualify to be certified as First Responders. (Prerequisite: State Certified First Responder).

HEMS2825 - 3 Hr. Athletic Injuries (1 - Credits) This course will teach the learning more information about athletic injuries and how to treat them.

HEMS2830 - 8-Hour OSHA Emergency Care/First Aid (1 - Credits) This training course in emergency care includes topics for initial treatment of injuries and medical emergencies which may occur in the workplace. This course meets OSHA and MSHA standards and certification is issued for a two-year period. This course does not include any CPR training.

HEMS2831 - 3-Hour OSHA Emergency Care/First Aid (1 - Credits) Learn the proper immediate first steps of treating workplace injuries and medical emergencies. Covering those first-action topics; this course satisfies OSHA and MSHA standards with certification issued for a two-year period. The course does not include CPR training.

HEMS2838 - 8-Hour AHA CPR Instructor Initial (1 - Credits) This is the course you need to become an AHA instructor for CPR, AED and First Aid. This training expands your teaching methodologies, provides you with the background and in-depth understanding of the material you'll be teaching and sharpens your skills as an instructor for all of the AHA's Basic Life Support CPR courses. Prerequisites: 1) Must have a current AHA Healthcare Provider CPR card; 2) Must align with an AHA Training Center, purchase a BLS Instructor Manual, read the BLS Instructor Student Workbook; order and complete the online BLS Instructor Course Essentials, print the certificate of completion to provide a copy to the College to take the classroom portion of the class; 3) Must attend an in-person class with our AHA Training Center Faculty. Once you have completed this class, you will be monitored by Training Center Faculty as you teach your first course. Please note: The BLS Instructor Card is issued by the Training Center you are aligned with, and only after all steps and corresponding paperwork are completed.

HEMS2840 - 8-Hour AHA CPR Instructor Recertification (1 - Credits) This class provides a skills refresher for participants with a current Basic Life Support (BLS) CPR Instructor Certification. This class will enable you to renew your certification with the American Heart Association and your Training Center. You must have also taught four (4) classes in the previous recertification period and be in good standing with the AHA Minnesota Affiliate.

HEMS2841 - 6-Hour Healthcare Provider CPR Recertification (1 - Credits) Still CPR-certified but want a refresher? This course is for those certified during the previous two years and covers the current National CPR guidelines for adult, child and infant CPR, obstructed airway techniques and automatic defibrillation procedures. A new 2-year American Heart Association card will be issued.

HEMS2843 - 5-Hour Healthcare Provider CPR Recertification (1 - Credits) This course is designed as a refresher training for persons certified during the previous two years. Content includes current National CPR guidelines for Adult, Child and Infant CPR and obstructed airway techniques as well as automatic defibrillation procedures. A 2 year American Heart Association card will be issued upon course completion.

HEMS2845 - 3-Hour AdultSaver CPR (1 - Credits) This course will show you not only how to administer CPR, but to recognize the signs and symptoms of heart attack and stroke. You'll learn how to perform CPR, clear airway obstructions and use the automatic defibrillator. The course will also cover risk factors for heart disease and stroke. A 2-year American Heart Association card will be issued.

HEMS2855 - 8-Hour Healthcare Provider CPR - Initial (1 - Credits) Designed for emergency care/health care providers, this course covers the current national CPR guidelines for adult, child and infant CPR, obstructed airway techniques and automatic defibrillation procedures. A 2-year American Heart Association card will be issued.

HEMS2870 - 4-Hour Pediatric CPR (1 - Credits) This course includes skills for CPR and relief of obstructed airways for infants 0-1 year old and children 1-8 years old. This course certification meets requirements for licensed daycare providers and also valuable for parents and others in charge of care for children. Participants receive a 2-year certification card upon successful completion.

HEMS2872 - Pediatric CPR & 1st Aid (1 - Credits) This course will combine both CPR and first aid skills. The CPR portion includes skills for CPR and relief of obstructed airways for infants 0-1 year old and children 1-8 years old. This course certification meets requirements for licensed daycare providers and also valuable for parents and others in charge of care for children. For the first aid portion, the course will also cover some basic first aid skills which would be needed for day care providers. Skills to include bleeding, shock, falls, seizures, heat & cold emergencies, and poisonings. Participants receive a 2-year certification card upon successful completion.

HEMS2873 - Pediatric CPR & 1st Aid (1 - Credits) This course will combine both CPR and first aid skills. The CPR portion includes skills for CPR and relief of obstructed airways for infants 0-1 year old and children 1-8 years old. This course certification meets requirements for licensed daycare providers and also valuable for parents and others in charge of care for children. For the first aid portion, the course will also cover some basic first aid skills which would be needed for day care providers. Skills to include bleeding, shock, falls, seizures, heat & cold emergencies, and poisonings. Participants receive a 2-year certification card upon successful completion.

HEMS2874 - Tot Saver CPR & 1st Aid (1 - Credits) This course includes skills for CPR and relief of obstructed airways for infants 0-1 year old and children 1-8 years old. This course certification meets requirements for licensed daycare providers and also valuable for parents and others in charge of care for children. Participants receive a 2-year certification card upon successful completion.

HEMS2880 - OSHA Emergency Care & First Aid w/ AdultSaver CPR (1 - Credits) This training course in emergency care includes topics for initial treatment of injuries and medical emergencies which may occur in the workplace. This course does not include any CPR training.

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HHC - Health Courses (Hour Based)

HHC2000 - Trained Medication Aide Training (1 - Credits) This program, formerly medication administration for unlicensed personnel, is for training unlicensed persons to administer medications under the supervision of a licensed professional nurse. Meets MN Board of Nursing standards for TMA Program. Prerequisites for a TMA: - Must be a

Registered Nursing Assistant - Must be 18 years of age when registering for certification - Must pass criminal background study

HHC3100 - Mental Health Basics for Front Line Workers (1 - Credits) What Participants will Gain Skills for safely working with people with mental health issues as a front line worker. A greater understanding of mental health issues, types and treatments. Learn the basics of community based care and resources for mental illness. Gain information about cultural aspects of mental health care. Learn about the role of prevention and early intervention. 4 Continuing Education Hours provided.

HHC3105 - Mental Health Basics for Front Line Workers (1 - Credits) What Participants will Gain Skills for safely working with people with mental health issues as a front line worker. A greater understanding of mental health issues, types and treatments. Learn the basics of community based care and resources for mental illness. Gain information about cultural aspects of mental health care. Learn about the role of prevention and early intervention. 8 Continuing Education Hours provided.

HHC5001 - ICD-10 for Existing Coding Professionals - CODESMART (1 - Credits) This dynamic online training program will teach current medical coding professionals to be proficient with using the new ICD-10-CM/PCS coding systems. With the successful completion of this program, the individual will gain new knowledge and enhance their skill sets.

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Course Descriptions

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HHP - Health & Human Performance

HHP100 - Introduction to Health (3 Credits) This course introduces students to basic health information and the essential concepts of health which are necessary to improve health literacy. Students will work to develop the essential skills needed to adopt, practice and maintain health enhancing behaviors. Topics may include general health topics such as: drug use and misuse, nutrition and fitness basics, disease prevention, stress management, reproductive and sexual health, complementary and alternative medicine, and consumerism. (Prerequisite: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0095 or (READ 0080 and READ 0090) with a grade of C or higher)

HHP101 - Health and the Environment (3 Credits) This course will examine the impact of complex environmental challenges on human health. This course focuses on the ecological model of health and wellness, a framework that addresses the interrelationships between individuals and their environment, and how these relationships influence the choices that affect health. The course will address the impact of the environment on human risk for common health concerns, to include cancer, heart disease, mental health, infectious disease, and nutrition/fitness. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 10: People and the Environment)

HHP102 - Introduction to Fitness and Wellness (3 Credits) This course will be an introduction to a path in fitness and wellness by exploring core concepts, real life student case studies, and action steps to help student develop a personal lifetime fitness and wellness program. The course concentrates on health-related physical fitness components with beneficial information about wellness. It also focuses on motivation and behavior modification with an emphasis on teaching individuals how to take control of their personal fitness, health, and lifestyle habits while exploring occupations in the fitness and wellness profession. (Prerequisite: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0095 or (READ 0080 and READ 0090) with a grade of C or higher)

HHP103 - Nutrition in Exercise and Performance (2 Credits) This course provides the latest sports nutrition information that can help athletes and fitness enthusiasts achieve their athletic goals. This course covers the basics of sports nutrition, energy metabolism, the main nutrients, nutritional ergogenic aids and dietary supplements, and weight management. It also focuses on applying those basics to endurance athletes, strength/power athletes, team sports, and special populations. (Prerequisite: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0095 or (READ 0080 and READ 0090) with a grade of C or higher)

HHP104 - Concepts of Fitness (2 Credits) This course will provide students with current information, tools, and guidelines to implement and adhere to a lifetime physical fitness and wellness program. The course will encourage students to take a critical look at their current behaviors in order to help them identify and abandon negative habits and adopt and maintain healthy behaviors. It also focuses on how to take control of personal lifestyles and make changes to

promote overall health and wellness. (Prerequisite: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0095 or (READ 0080 and READ 0090) with a grade of C or higher)

HHP121 - Topics in Aerobic Conditioning: (1 Credit) Students will participate in a variety of aerobic conditioning fitness activities that promote improved cardiovascular fitness. Topics may include but are not limited to: walking, running, kickboxing, step aerobics, dance-based aerobics and/or a combination of these activities. Students will learn the basic concepts related to fitness and health, and particularly those related to aerobic conditioning. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness and disability. Students will monitor and track their own cardiovascular fitness level. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing behaviors that promote a healthy lifestyle. This course may be repeated for credit. (Prerequisite: None)

HHP122 - Topics in Mind/Body Fitness: (1 Credit) Students will participate in mind body fitness activities that promote increased flexibility, core strength as well as mental focus and relaxation. Topics may include but are not limited to: different styles of yoga, Pilates, tai chi, dance-based activities and/or a combination of these activities. Students will study and understand basic health and fitness concepts as well as concepts related to mind body fitness. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness and disability. Students will monitor and track their own core strength and flexibility fitness levels. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing fitness activities that promote a healthy lifestyle. This class can be repeated for credit. (Prerequisite: None)

HHP123 - Topics in Strength Training: (1 Credit) Students will participate in a variety of strength training activities that promote improved muscular endurance and strength in major muscle groups. Topics may include but are not limited to: the use of resistance bands, free weights, weighted bars, body weight and/or a combination of these activities. Students will learn the basic concepts related to fitness and health, and particularly those related to safe and effective resistance training. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness and disability. Students will monitor and track their own muscular endurance and strength fitness level. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing behaviors that promote a healthy lifestyle. This course may be repeated for credit. (Prerequisite: None)

HHP124 - Topics in Lifetime Fitness Activities: (1 Credit) Students will participate in lifetime fitness activities to promote maintenance of an active lifestyle throughout the lifecycle. Topics may include but are not limited to: bowling, tennis, soccer, volleyball, golf, skiing, softball, basketball, martial arts, etc. Students will learn the basic concepts related to fitness and health, and particularly those related to lifetime activities. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life. This course may be repeated for credit. (Prerequisite: None)

HHP126 - Topics in Aerobic Conditioning - Cycling (1 Credit) Students will participate in cycling activities to promote improved cardiovascular fitness. Students will learn the basic concepts related to cycling, fitness, and health. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness and disability. Students will monitor and track their own cardiovascular fitness level. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing behaviors that promote a healthy lifestyle. There is no prerequisite for this course. This course may be repeated for credit. (Prerequisite: None)

HHP127 - Topics in Mind/Body Fitness Pilates (1 Credit) Students will participate in mind body fitness activities that promote self-awareness, flexibility, core and overall strength, mental focus, and relaxation. Topics may include but are not limited to: Pilates, core conditioning, functional training, yoga, and other fitness activities. Students will understand basic health and fitness concepts related to mind body fitness and core strength. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness, and disability. Students will monitor and track their own fitness and wellness levels. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing mind/body fitness activities that promote a healthy lifestyle. This class can be repeated for credit. Supplies needed for class include a Pilates mat. (Prerequisite: None)

HHP128 - Topics in Mind/Body Fitness Yoga (1 Credit) Students will participate in mind body fitness activities that promote self-awareness, flexibility, strength, mental focus, and relaxation. Topics may include but are not limited to: different styles of yoga, Pilates, tai chi, and other mind/body activities. Students will understand basic health and fitness concepts related to mind body fitness. Students will be able to recognize behaviors that lead to a healthy lifestyle and prevent disease, illness, and disability. Students will monitor and track their own fitness and wellness levels. Students will incorporate a sense of appreciation for and a commitment to fitness and wellness in everyday life and create a personalized plan of action for continuing mind/body fitness activities that promote a healthy lifestyle. This class can be repeated for credit. Supplies needed for class include a yoga mat. (Prerequisite: None)

HHP205 - Drug Education (3 Credits) This course provides an overview of drugs and drug use, as well as current issues and themes regarding both individual health and social function. Topics include drug use from a psychological, emotional, behavioral, pharmacological, legal, and medical perspective. This course also includes an analysis of the personal decisions regarding use/non-use of drugs to the topics of social norms, politics, economics, crime, prevention and treatment. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer

Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

HHP210 - Stress Management (3 Credits) This course exposes students to a holistic approach to stress management. Students will learn the basic principles, theories, coping skills and relaxation techniques to effectively manage personal stress. Topics include: the effects of the stress response, the relationship between stress and health/disease, the identification of personal stress levels, the application of coping skills and relaxation techniques, and the understanding of the importance of personal responsibility for health. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.)

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Course Descriptions

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HIST - History

HIST120 - U.S. History I (4 Credits) This course surveys the history of America from the contributions of the indigenous Indian people through the Colonial Era (17th and 18th centuries) to the American Revolution and Early Republic (18th and 19th centuries). It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History & Social & Behavioral Sciences, Human Diversity)

HIST121 - U. S. History II (4 Credits) This course surveys the history of America from the Civil War and Reconstruction, through the New South and the New West, Industrialization, Populism and Progressivism, World War I, the Great Depression and the New Deal, World War II, Cold War America, the 1960's, Vietnam and Beyond. It examines how historical American culture, institutions, and events influence the present United States in the latter part of the twentieth century. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

HIST160 - World History I (4 Credits) This course is a survey of world history examining ancient, classical, and medieval civilizations prior to the emergence of the West as a world power (c. 3500 BCE - 1450 CE). The course explores how environmental, economic, political, social, religious and other intellectual and cultural factors combined in different ways to influence the development of major world regions - Africa, EurAsia, and the Americas. The goal is for students to understand how fundamental institutions and cultural norms of different world regions developed out of their own internal environments as well as in response to developments and influences from other cultural systems and historical forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST161 - World History II: The Rise of the West (4 Credits) The history of world civilizations from 1500 C.E. through World War I, the rise of Europe, the age of revolutions, colonization and resistance to colonization, industrialization and its effects on people living in both imperialist and colonized societies and the connection between industrialization and imperialism as causes of World War I. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 8: History & Social & Behavioral Sciences, Global Perspective)

HIST205 - Special Topics in History: (1 - 4 Credits) Any HIST class has been specially designed by an SCC History instructor to appeal to SCC students. The instructor has chosen the subject material related to his/her interests, students' interests, or his/her teaching expertise. (Prerequisites: Any HIST course or instructor permission) (MNTC 5, 8: History & the Social & Behavioral Sciences, Global Perspective)

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HLTH - Health

HLTH1000 - Medical Terminology (1 Credit) This course teaches students to recognize and build medical terms after learning the meaning of word parts. The course is based on a systems approach. Students also learn how to interpret and use common medical abbreviations and symbols. With instructor approval, this course may be taken on independent study. (Prerequisite: None)

HLTH1950 - CPR (1 Credit) This course covers the skills of infant, child and adult single and two rescue CPR as well as relief of foreign body airway obstruction procedures for infant, child and adult. Automated external defibrillators, bag-valve-masks and pocket masks are also used. Signs and symptoms of vascular disease are discussed. This meets the current criteria of the American Heart Association guidelines. (Prerequisites: None)

HLTH1952 - First Aid (1 Credit) This course includes emergency care training for initial treatment of illness and injury. Patient assessment, bleeding control, shock management, soft tissue injury, orthopedic injury, diabetic problems, seizures, poisons, heat exposure and cold exposure are some of the topics covered in the course. This course is appropriate for anyone who may need to render immediate care. The topics covered do meet the course requirements for OSHA and MSHA first aid training.

HLTH1954 - Safety (1 Credit) This course includes basic OSHA safety standards. Hearing protection, eye protection, back injuries, lockout/tagout procedures, Hazard Communication Standard, bloodborne pathogens and substance use and abuse in the workplace are examples of topics covered in the course. The consequences of disregarding safety practices are explored. (Prerequisites: None)

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HSER - Human Services

HSER1000 - Introduction to Counseling (3 Credits) This course provides students with an introduction to the skills of counseling. Students will learn how to identify and explore feelings, set up a positive environment, learn effective helping skills, and explore treatment issues. Emphasis will be placed on understanding the principles of interviewing and on the demonstrated application of these skills by the student. Students examine how these skills affect relationship building and therapeutic interventions. Guided encounters, discussions, presentations, and assigned projects will be utilized. (Prerequisites: None)

HSER1010 - Disability and Person Centered Planning (4 Credits) This course gives an overview of how service providers work with one another in order to assure the delivery of optimal supports. It will introduce you to a variety of strategies and techniques used to facilitate person centered planning for individualized and real life goals. Topics covered in the course include: the use of support teams (effective team work, team dynamics, communication skills and problem solving skills); working with families; direct service provider roles and responsibilities; diversity, confidentiality, and advocacy issues; the civil and disability rights movement; interdisciplinary team planning processes; and use of the Planning Alternate Tomorrows with Hope (PATH) planning system to promote minimally invasive care and support strategies. (Prerequisites: None)

HSER1020 - Behavioral Interventions (3 Credits) This course provides an in-depth look at positive supports and interventions for those with challenging behaviors, and reviews human development, learning styles, and teaching techniques. Additionally, analysis of a wide variety of multiple positive behavior strategies will be conducted. This course reviews the philosophy of behavior modification and theory, incident and accident reports, and documentation requirements. Emphasis is placed on understanding and supporting an individual's learning barriers by using positive approaches, as well as understanding and responding to behaviors with positive supports. Students will explore how their individual values and personal experiences influence the ways in which they respond to and assess individual's abilities. Students will also acquire knowledge and skills relating to functional and specialized assessments, the importance of

using non-aversive interventions and the selection and use of appropriate non-aversive behavioral supports. Methods for designing, planning, developing, and implementing skill orientated support plans are taught in this course. (Prerequisites: None)

HSER1030 - Poverty (3 Credits) This course examines the causes and consequences of poverty. Students will learn the terminology and analyze the philosophical, conceptual, and theoretical frameworks utilized by diverse agents to understand and address poverty. Specific interventions are explored and analyzed. The goal of this course is to develop social work professionals who understand the problem of poverty from a variety of disciplines, understand key concepts, and will be prepared and willing to intervene regardless of area of practice. (Prerequisite: None)

HSER2000 - Field Experience (4 Credits) This course is designed to provide the student with a practical experience within the social services field. Each field experience is individualized and students will be placed within a social service agency by the instructor based on the student's interest, skill set, and agency availability. The focus of field experience is to give the students experience with a client population and practice modeling social work values and ethics. Students will complete field experience their last semester. (Prerequisites: Instructor approval required)

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HSS - Health Support Specialist

HSS1000 - Introduction to the Health Support Specialist (3 Credits) This course will provide students with an orientation to aging services role of the Health Support Specialist (HSS). The course will also focus on the history of aging services and the concept of Culture Change and Person Directed Living. Topics will include; implementing person directed living in the health care setting and participation in a mentorship and apprenticeship model of training. Effective communication skills needed to work with families, residents, and other healthcare workers will be explored. This course will provide an introduction to the computer skills used for the HSS curriculum. (Prerequisite: Acceptance into the program)

HSS1001 - Health Support Specialist in Meaningful Activities (1 Credit) This activity course will provide direct caregivers with the fundamental skills, knowledge, and resources for engaging residents in meaningful activity programs, groups, and one to one's during their daily care giving routines. In this course student will also be given the opportunities for residents to engage in activities that meet their needs and interests which will provide quality of life and meaningful living for those living in a healthcare setting. (Prerequisites: Acceptance into the program)

HSS1002 - Health Support Specialist in Memory Care (1 Credit) This course will explore the aging process as it relates to the resident who has memory loss and/or dementia related diagnosis. Topics will include; changes affecting communication skills and daily routines, recognizing common behaviors associated with memory loss, and implementing behavior interventions. The course will also introduce the student to methods for involving the family in decisions that provide purposeful living for the resident. (Prerequisites: Acceptance into the program)

HSS1003 - Health Support Specialist in Culinary Care (1 Credit) This course will provide the student with basic culinary information that will help them purchase, plan, prepare and deliver a nutritionally adequate diet for the resident. Principles of infection control and basic nutrition will also be covered. (Prerequisites: Acceptance into the program)

HSS1004 - Health Support Specialist in Physiological Care (1 Credit) This course introduces the student to the basic body structure and function during the aging process. Each body system is explored for the influences and implication of aging, common disorders, completion of body functions and common disease processes. (Prerequisites: Acceptance into the program)

HSS1005 - Health Support Specialist in Psychosocial Care (1 Credit) In this course student will develop greater awareness of the psychosocial and spiritual impact of aging and end-of-life care. Losses resulting from aging extend much deeper, are more challenging to measure and thus often go unnoticed or unattended. Students will examine the emotional, social and spiritual dimensions of holistic care as a HSS and how each can be influenced by transition and loss. Students will also explore ways to identify and support individual and family needs in each of these dimensions. (Prerequisites: Acceptance into the program)

HSS1006 - Health Support Specialist in Environmental Services (1 Credit) This course will cover the basics in providing a clean and safe environment. Topics include basic housekeeping practices, laundering procedures and simple maintenance tasks required within the guidelines of facility policies and procedures and comply with OSHA, state and federal regulations. (Prerequisites: Acceptance into the program)



HUCF - Health Unit Coordinator

HUCF1101 - Introduction to Health Unit Coordinating (1 Credit) This course includes the study of health care facility office and communication skills for nonclinical functions. Information about working with nursing and medical staff, other department staff, patients and visitors to contribute to the patients'/clients'/residents' care and well-being is explored. Telephone, written, electronic, and interpersonal communication is discussed, along with an emphasis in clerical support duties such as scheduling, faxing, and using various electronic devices. This course will help prepare students for the National Association of Health Unit Coordinators certification exam. (Prerequisites: None)

HUCF1200 - Health Unit Coordinator Fundamentals (2 Credits) This course includes the study of health care facility office and communication skills for nonclinical functions. Information about working with nursing and medical staff, other department staff, patients and visitors to contribute to the patients'/clients'/residents' care and well being is emphasized. Communication of many kinds, including telephone, written, electronic, and interpersonal is a focus of the course. Students will also learn about clerical support duties such as typing, scheduling, faxing, and using the computer. Chart creation and interaction are also explored, both in paper format and in the Electronic Health Record. (Prerequisite: None)

HUCF1201 - Health Unit Coordinator Procedures (3 Credits) This course expands on the role and job duties of the Health Unit Coordinator. Students will work with medical terminology and information necessary to comprehend and process a variety of orders within a health care setting. Examples of various kinds of orders are studied and many opportunities for practicing procedures is provided. Interaction with the patient chart and the Electronic Health Record continue to be explored, and multiple types of entries are practiced by students. Also, an overview of basic anatomy as well as disease and disorders will be covered to enhance understanding of orders and other elements of working in a health care setting. This course will focus on preparing students for certification through the National Association of Health Unit Coordinators. (Prerequisite: None)

HUCF1202 - Health Unit Coordinator Internship (3 Credits) This course is designed to provide the student with a purposeful occupational experience in the health unit coordinating field. Each internship is an individualized experience. A training plan is created for each student in conjunction with the training site to provide and experience related to the skills and knowledge acquired in the HUC training program. Students must have completed the Anatomy and Physiology Disease Conditions, Medical Terminology and Applied Medical Terminology courses and the HUCF Fundamentals course. (Prerequisites: HUCF 1200 or Instructor approval)



HUM - Humanities

HUM100 - Critical Thinking (3 Credits) This course introduces students to the importance of critical thinking in our culture today. Students will be provided with methods of critical thinking as well as relevant topics on which to practice their skills. (Prerequisites: Must have a score of 78 or higher on the Reading portion of the Accuplacer test or completion of READ 0080 and READ 0090 or READ 0095 with a grade of C or higher) (MNTC 2: Critical Thinking)

HUM115 - Global Connections Seminar (1 Credit) This seminar is designed to run concurrently with the 2010 Global Connections Conference at the North Mankato Campus of South Central College. Students will focus on preparing for the two-day conference in order to best utilize its learning opportunities. They will then attend and assist in the conference. Students will end the seminar by evaluating their learning experience. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 8: Global Perspective)

HUM121 - Introduction to the Humanities (4 Credits) This course is an overview of the principal trends in Western thought and artistic expression from ancient times to the contemporary. Its aim is to foster an appreciation of how diverse ideas and works of art have contributed to our understanding of the universal human experience. Classroom instruction will be supplemented by guided tours of museums/exhibitions, and attendance at live performances of works pertinent to the course. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6: Humanities & Fine Arts)

HUM130 - China: Cultural Tradition and Change (3 Credits) Students in this course study the expression of Chinese values through intellectual and artistic pursuits and their influence on humans throughout the world. By taking a panoramic view of Chinese culture and civilization, students develop an appreciation for the treasure of Chinese achievements and the wealth of Chinese contributions to humanity. This view will also provide a context for the study of specific topics such as artistic expression, language, key points in history, traditions, human rights and conditions, and philosophy of health. Beyond an appreciation for Chinese culture, this introductory course aims to increase our understanding of China's presence, which has risen to a dominant position in global economic and political affairs. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6 Humanities and Fine Arts and 8 Global Perspective)

HUM150 - Global Connections Travel Seminar (1 Credit) The Global Connections Seminar is a one-credit course which prepares students for traveling with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

HUM205 - Special Topics in the Humanities: (1 - 4 Credits) This course has been specially designed by an SCC Humanities instructor to appeal to SCC students. The instructor has chosen the subject material related to her or his interests, students' interest, or his or her teaching expertise. (MnTC 6: Humanities and Fine Arts) (Prerequisites: None)

HUM250 - Global Connections Travel Seminar II (1 - 3 Credits) The Global Connections Seminar is a three-credit course which travel with one or more instructors. Its specific content will be determined by the intended destination, and will include information on the history, geography, culture, art, and religion of that region. THE SEMINAR IS ONLY OPEN TO STUDENTS WHO HAVE SIGNED UP FOR THE TRIP. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities & Fine Arts, Global Perspective)

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HVAC - Heating/Air Conditioning

HVAC1000 - Alternative Refrigeration Systems Lab I (1 Credit) This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC1200 - Alternative Refrigeration Systems Lab II (2 Credits) This course covers all types of refrigeration systems, residential and commercial. The course is designed for the student who wants more hands-on training. The student will troubleshoot, repair, and replace refrigeration systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2000 - Electrical Circuits (2 Credits) This is an introductory course designed to help students understand the relationships of electricity. Electrical units, terms, formulas, and electrical schematics are covered. (Prerequisites: None)

HVAC2010 - IPH Motors and Auxiliary Controls (2 Credits) The course will introduce the student to the different types of single-phase and three phase AC motors used on HVAC/R equipment. Motor starting devices and motor protection devices for single-phase motors will also be covered in depth. From an electrical controls schematic the student will

connect and wire motors in start-stop circuits, reversing circuits and three phase circuits. The student will learn to electrically troubleshoot motors and motor control circuits utilizing motor wiring schematics. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2100 - Refrigeration Theory (2 Credits) This course introduces the students to the refrigeration system, how it works, and the relationship between pressure and temperatures. We will discuss the reasons for EPA testing, refrigeration terminology, troubleshooting, and the proper handling of refrigerants. (Prerequisites: None)

HVAC2110 - Refrigeration Controls (2 Credits) This course covers controls found in both household and commercial refrigeration systems. The functions and operation of these controls will be discussed along with proper troubleshooting procedures. This course will be offered concurrently with refrigeration theory and electrical circuits. (Prerequisites: None)

HVAC2120 - Testing Refrigeration Systems (2 Credits) This course will cover analyzing, troubleshooting and testing of both the electrical and refrigeration systems. Safety will be stressed throughout this course. This course will be offered concurrently with refrigeration controls. (Prerequisites: None)

HVAC2205 - Coolers/Freezers Electrical Systems & Components (3 Credits) This course will cover both commercial coolers and freezers. The electrical components that are used in commercial coolers and freezers will be studied, analyzed, operated, and tested. A large portion of the class will be designated to the drawing and understanding of wiring schematics for the purpose of troubleshooting electrical failures. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and refrigeration controls. (Prerequisite: HVAC 2120)

HVAC2215 - Coolers/Freezers Refrigeration Diagnostics & Operations (3 Credits) This course will cover both commercial coolers and freezers. We will discuss the operation of the refrigeration sealed system and analyze how to diagnose system failures and their causes. The student will learn the proper way to recover and charge a commercial refrigeration unit. The students will study and follow EPA regulations regarding the handling of refrigerants. Proper safety and troubleshooting techniques will be followed. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, and controls. (Prerequisite: HVAC 2120)

HVAC2220 - Commercial Ice Makers (3 Credits) This course covers commercial ice makers used in the industry today. The electrical, mechanical and water systems will be studied, analyzed, connected and operated. The students will study proper troubleshooting and safety procedures. The students will then apply this knowledge when testing the electrical, mechanical and water systems. To be successful in this course, you should have knowledge in electrical circuits, refrigeration theory, controls and refrigeration sealed systems. (Prerequisites: None)

HVAC2230 - Commercial Alternative Systems (1 Credit) This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have an understanding of the refrigeration sealed system components and how they work. (Prerequisites: None)

HVAC2240 - Central Air Conditioning (2 Credits) This course covers the different central air conditioning systems found in residential and light commercial applications today. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2251 - Brazing (2 Credits) This course covers brazing equipment and materials. Students will be introduced to the soldering and brazing process, terms, and personal safety. (Prerequisites: None)

HVAC2301 - Indoor Air Quality (1 Credit) This course covers equipment that deals with today's problem with indoor air quality. Students will study, analyze the causes of poor IAQ in homes and the work place. Each student will give an oral report on a topic picked by the instructor. (Prerequisites: None)

HVAC2310 - Hydronic Heat (2 Credits) This course covers systems that utilize fluid for the transfer of heat known as hydronic heating. The electrical and mechanical systems will be studied and analyzed along with troubleshooting system fluid problems, air infiltration and proper operating pressures. The students will identify fluid control components, and demonstrate knowledge of each component's purpose in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2320 - Gas Heat (3 Credits) This course covers the forced air gas heating systems found in residential and light commercial applications. The electrical and mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The students will then apply this knowledge by using proper troubleshooting techniques for testing electrical and mechanical operations in the lab. To be successful in this class the student should take HVAC 2000 and HVAC 2100 before or concurrent. (Prerequisite: None)

HVAC2325 - Commercial Package Heat/Cool Units (2 Credits) This course covers the different commercial packaged heating and cooling systems found in residential, commercial and industrial applications. The electrical, mechanical systems will be studied and analyzed along with troubleshooting and safety procedures. The principle and operation of

economizers and their controls will be discussed in class. The student will then take this knowledge and apply it in the lab. To be successful in this class the student will need to be enrolled in the HVAC program and be in their second or third semester. (Prerequisites: None)

HVAC2330 - Alternative Heating Systems (2 Credits) This course covers a variety of alternative heating systems, some of the systems included will be oil heating systems, a variety of electrical heating systems, heat pump systems and alternative fuel sources will be discussed. Electrical and mechanical systems will be explored along with safety, troubleshooting and equipment performance. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2240, and HVAC 2320 or concurrent. (Prerequisites: None)

HVAC2340 - Sheet Metal Ductwork Fabrication (3 Credits) The course will introduce the student to the layout and fabrication of sheet metal ductwork in both commercial and residential applications. The student will fabricate fittings including reducers, transitions, takeoffs, ogee offsets and radius elbows. Residential duct design and sizing methods will be discussed along with heat loss/heat gain calculations with related computer software applications. The student will be exposed to blue print reading and related specification books. (Prerequisites: None)

HVAC2400 - Advance Central A/C Lab 1 (1 Credit) This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None)

HVAC2410 - Advanced Central Air Conditioning Lab II (2 Credits) This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer installation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and take HVAC 2240 before or concurrent. (Prerequisites: None) ,

HVAC2420 - Air Conditioning Internship I (1 Credit) This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2430 - Air Conditioning Internship II (2 Credits) This course covers air conditioning work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. To be successful in this course, you must have knowledge in electrical circuits, refrigeration theory, controls, refrigeration sealed systems or concurrently taking HVAC 2240. (Prerequisites: None)

HVAC2440 - Advanced Refrigeration Lab I (1 Credit) This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2450 - Advanced Refrigeration Lab II (2 Credits) This course covers all aspects of today's refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas: electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2460 - Refrigeration Internship I (1 Credit) This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls, and sealed systems. (Prerequisites: None)

HVAC2470 - Refrigeration Internship II (2 Credits) This course covers household or commercial refrigeration work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in the areas of electrical circuits, refrigeration theory, controls and sealed systems. (Prerequisites: None)

HVAC2500 - Advance Heating Lab I (1 Credit) This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or

the student themselves. Manufacturer instillation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and taken HVAC 2320. (Prerequisites: None)

HVAC2510 - Advanced Heating Lab II (2 Credits) This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer instillation guides will be studied and a detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC 2320. (Prerequisites: None)

HVAC2520 - Heating Internship I (1 Credit) This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

HVAC2530 - Heating Internship II (2 Credits) This course covers heating work related experiences. Each student taking this course will be required to fill-out an internship experience worksheet. Students will be repairing equipment in the shop as well as in the customer's home. This is under the guidance of the employer. In order to be successful in this course, you must be knowledgeable in electrical circuits, controls or concurrently taking HVAC 2320. (Prerequisites: None)

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ICP - Intensive Care Paramedic

ICP1000 - Introduction to Paramedicine (3 Credits) The Paramedic has a variety of duties. This course demonstrates the difference between the various levels of the Emergency Medical Technician and the responsibilities that accompany each level of training. It also includes introductory topics that the individual must understand in order to function as a paramedic. Such topics include medical/legal issues, communications, stress, system structure, lifting mechanics, medical terminology, infection control, etc. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1005 - Applied Anatomy and Physiology for EMS (3 Credits) This course is designed as an introduction to body structure and function. An emphasis will be placed on body systems specifically related to paramedicine and how that knowledge can be applied to EMS care. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1010 - EMS Skills (5 Credits) EMS SKILLS focuses on the Basic Life Support skills that the EMT-P must master along with this introduction to advanced skills. These include: Patient assessment, airway control with adjuncts, IV therapy, suctioning, communication skills, AED's, intubation, medication administration, cardiac skills, and other invasive techniques. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1020 - Pharmacology for EMS (3 Credits) The intent of this course is to introduce the student to basic pharmacological concepts, principles of drug safety and basic drug categories. Legal aspects of drug administration, drug standards, and use of reference material will be included. Specialized medications utilized in ALS transports will also be discussed. This course will have a primary focus on specific drugs used by paramedics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1040 - Cardiac Care in EMS (4 Credits) The course will prepare the EMT-P to assess and manage those cardiac emergencies that result from coronary atherosclerosis, along with a number of conditions involving pathology of peripheral/central circulation. The interpretation of cardiac dysrhythmias receives much emphasis in this course. ACLS Provider certification may be included. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1050 - Trauma Care (3 Credits) This course deals with the many aspects of trauma, including kinematics, evaluation, management, packaging, and transport. Advanced ITLS certification may be obtained. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP1060 - Pathophysiology in EMS (5 Credits) This course discusses a variety of topics and medical conditions that occur in the various body systems. Emphasis is placed on field management of medical emergencies. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2010 - EMS Advanced Skills (5 Credits) This course is designed to orient the student to the rescue environment. Emphasis is placed on the role and responsibilities of the paramedic during a rescue response, including essential skills needed to keep the paramedic and the patient safe. Topics include Mass Casualty Incidents (includes ICS & START disaster response), hazardous materials, basic rescue, water and ice rescue awareness, high level-low angle rescue, emergency driving, special rescue situations and auto extrication for the paramedic. Also included is an introduction to advanced intensive care paramedic skills. Additional clinical rotations will also be completed. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2030 - Critical Care I (3 Credits) This course orients students to the emergency room, intensive care unit, cardiac intensive care, telemetry unit and critical care departments. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2040 - Critical Care II (3 Credits) Clinical areas may include: Psychiatric Unit, Obstetrics, Pediatrics and Geriatrics. (Prerequisite: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2050 - Field Internship I (3 Credits) This internship involves experiences with an advanced life support system provided by a fire service, municipal, hospital or other. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2060 - Field Internship II (3 Credits) This internship involves experiences with an advanced life support system provided by a private service. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2070 - Special Populations (5 Credits) This course covers medical considerations in areas such as geriatrics, obstetrics, gynecology, neonates, pediatrics, behavior disorders, and patients with special needs. PALS certification may be obtained. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2080 - Paramedic Refresher (3 Credits) This course is a comprehensive review of the technical courses and designed to prepare the candidate to challenge the National Registry Exam. It also meets the requirements for the 48-hour refresher. (Prerequisites: Admission into the Paramedic Program. All classes must be taken in sequence.)

ICP2090 - Hazardous Materials (1 Credit) This course is designed to meet the training standards designed in NFPA473 "Standards for Competencies of EMS Personnel Responding to Hazardous Materials Incidents". The class combines didactic training with audio-visual materials that will provide a review of pertinent "awareness" level information. To insure a safe EMS response to a hazardous materials situation at the Operations Level, additional information and practical laboratory time will be provided as necessary. (Prerequisite: Permission of the Instructor)

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MA - Medical Assistant

MA1020 - Medical Office Procedures (3 Credits) This course will review administrative duties that are performed by a medical assistant. Emphasis will be on clerical functions, bookkeeping procedures, insurance claims, professional communications, medical coding, legal concepts, medical office operational functions including written and electronic. (Prerequisite: Acceptance into one of the following programs: Medical Assisting, Health Unit Coordinator, or Administrative Office Specialist - Medical)

MA2000 - Pharmacology for Medical Assistants (3 Credits) In this course, students will learn topics essential for the Medical Assistant to thoroughly understand drug sources, herbs, and supplements, legislation relating to drugs, drug references, and drug classifications. Students will also gain knowledge in basic principles for administering different types of medications and the universal precautions and standards related to the role of a Medical Assistant. Prerequisites HC 1000 and HC 1914 and MA 2010.

MA2010 - Laboratory Skills for Medical Assistants (3 Credits) This course is designed to teach laboratory fundamentals of medical assisting in a clinical office setting. Students will learn aspects of standard precautions, laboratory safety, venipuncture, collection of patient specimens, perform CLIA waived laboratory testing along with identification of infectious agents. (Prerequisites: None)

MA2015 - Clinical Skills I (3 Credits) This course introduces skills utilized in a clinical setting for Medical Assistants. Using primary care as the framework students will apply their critical thinking skills and skills for assisting with health exams, obtaining vital signs, assisting with procedures and treatments within the ambulatory care setting. Infection control techniques will be studied and used in the clinical setting. The student will discuss the MA role in emergency preparedness and use first aid procedures. (Corequisites: MA 2010)

MA2020 - Clinical Skills II (3 Credits) This course builds on the skills obtained in Clinical Skills I for Medical Assistants. Using medical specialties as the framework students will utilize their critical thinking skills to learn specific health testing, procedures and treatments in medical specialty departments within the ambulatory care setting (Prerequisites: MA 2015)

MA2030 - Radiography Skills for Medical Assistants (3 Credits) This course is a comprehensive look at the skills and process needed to obtain a limited scope of practice certificate in radiography. Students will learn information regarding, radiation protection, image production and evaluation, equipment operation and quality control, patient care and education, as well as radiographic procedures for each anatomical region. (Prerequisites: HC 1000, 1914)

MA2040 - Medical Assistant Internship (5 Credits) Students will engage in a non paid medical assisting internship within an ambulatory health care setting. In actual work situations, students will perform administrative and clinical competencies. Administrative competencies may include and are not limited to, clerical functions, performing bookkeeping tasks and scheduling appointments. Clinical competencies may include and are not limited to, specimen collection, diagnostic testing and patient care. Students will participate in mandatory campus meetings where the student will learn job search and interview techniques along with participation in test preparation for their National Certification Exam. (Prerequisites: MA 2000, 2020)

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Course Descriptions

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MASS - Mass Communication

MASS100 - Introduction to Newspaper Writing (3 Credits) Introduction to Newspaper Writing focuses on the principles of gathering information and writing news and feature stories for the mass media, with an emphasis on newspaper writing. Students enrolled in this course will be staff members of SCC's student run college newspaper - The Spotlight. Students will attend lectures, participate in regular meetings of the newspaper staff, and meet deadlines for writing articles for the school newspaper. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC: None, will be used as an elective)

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Course Descriptions

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MATH - Math

MATH0075 - Introductory Algebra (4 Credits) This course is designed to provide students with a review of basic fundamentals of algebra and mathematics. Topics include: algebraic expressions, functions, polynomials, exponents, solving and graphing linear equalities and inequalities, interpreting data in graphical form, factoring polynomials, simplifying rational expressions, and solving and simplifying radical and rational equations. Students needing foundational level improvement are highly encouraged to gain this first and/or concurrently with this course. Minnesota K-12 Academic Standards in Mathematics indicated in parenthesis after each competency on the Common Course Outline. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 220 to 249 or Classic Accuplacer Arithmetic score of 30 to 55 or MCA Math score of 1145 or below.)

MATH0085 - Intermediate Algebra (4 Credits) This course is function - based. It starts with a general overview of equations and inequalities. It then proceeds to cover linear functions, polynomial and rational functions, quadratic functions, equations involving radicals, and absolute values. Minnesota K-12 Academic Standards in Mathematics are

indicated in parentheses after each competency on the Common Course Outline. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 and Next-Generation QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher and Classic Accuplacer Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher or MCA Math score of 1146 to 1149.)

MATH0095 - Elementary and Intermediate Algebra (6 Credits) This course is function - based. It starts with a brief overview of the number system and continues through equations and inequalities. It then proceeds to cover linear functions, polynomial and rational functions, quadratic functions, equations involving radicals, and absolute values. This course includes the latter part of Math 0075 and all of Math 0085. Minnesota K-12 Academic Standards in Mathematics are indicated in parentheses after each competency on the Common Course Outline. (Prerequisite: Next-Generation Accuplacer Arithmetic score of 235 or higher or Classic Accuplacer Arithmetic score of 36.)

MATH0097 - Quantitative Reasoning Corequisite (2 Credits) This course provides support for students taking MATH 110 and must be taken simultaneously with MATH 110 to further develop skills needed for successful completion of the college-level course. MATH 0097 consists of topics including real numbers, variable expressions, linear equations, graphing, analyzing data, problem solving, and study skills. (Corequisite: MATH 110) (Prerequisite: Classic Accuplacer score 30+ in Arithmetic OR Next Generation Accuplacer score 220+ Arithmetic OR ACT score 18 or below OR MCA score 750+).

MATH0098 - College Algebra-corequisite (2 Credits) This course provides support for students taking MATH 120 and must be taken simultaneously with MATH 120 to further develop skills needed for successful completion of the course. MATH 0098 consists of Intermediate Algebra topics such as properties of real numbers, polynomials, linear and quadratic equations, linear and quadratic functions, domain and range, and topics in logarithms and exponentials. Corequisite: MATH 120. (Prerequisites: Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 0-75 OR NextGen Accuplacer Arithmetic of 250 or higher AND NextGen Accuplacer QAS 200 or higher AND NextGen Accuplacer AAF 200 or higher OR MCA score of 1146 or higher OR completion of MATH 0075 OR MATH 0085 OR MATH 0095 with a C (2.0) or higher.)

MATH0099 - Elementary Statistic Corequisite (2 Credits) This course provides support for students taking MATH 154 and must be taken simultaneously with MATH 154 to further develop skills needed for successful completion of the course. MATH 0099 consists of topics including order of operations, exponent rules, polynomials, radical expressions, graphing, and the solution of equations and inequalities. Corequisite: MATH 154 (Prerequisites: Must have a Classic Accuplacer Arithmetic score of 30 or higher OR Next-Generation Accuplacer Arithmetic score of 220 or higher OR ACT score of 18 or below or MCA MATH score of 750 or higher OR MATH 0075 OR MATH 0085, OR MATH 0095 with a C (2.0) or higher.)

MATH110 - Quantitative Reasoning (4 Credits) Quantitative reasoning helps students develop problem-solving skills to think critically in our increasingly quantitative world. Topics in this course include problem-solving, numeracy, proportional reasoning, logic, mathematical modeling, finance, statistics, and probability. MATH 110 is a terminal course and does not serve as a prerequisite for any higher-level mathematics courses. MATH 110 satisfies the MNTC Category 4 - Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0097 OR, completion of MATH 0097 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR Classic Accuplacer score of 56 or higher in Arithmetic AND 76 or higher in Elementary Algebra, OR Next Generation Quantitative Accuplacer score (QAS) of 250-300, OR ACT Math score of 19-36, OR MCA score of 1148-1164.

MATH115 - Concepts in Math (4 Credits) Concepts in Mathematics is a general education survey course designed to spotlight the field as an important component of our cultural heritage. It introduces a broad range of topics from classical as well as modern mathematics. The emphasis is on problem solving and developing the logical skills to successfully defend solutions, while at the same time showing how mathematics is a creative human endeavor influencing how we perceive the world. Among the major topics considered are logic, set theory, axiomatic systems, number theory, number systems, analytic geometry, algebra, combinatorics, and elementary probability. (Prerequisites: Next-Generation Accuplacer QAS score of 237 to 300; or Classic Accuplacer Arithmetic score of 56 or higher AND Classic Accuplacer Elementary Algebra score of 76 or higher; or completion of either MATH 0085 or MATH 0095 with a grade of C (2.0) or higher or ACT Math score of 19 or higher or MCA Math score of 1148 or higher) (MNTC 4: Math/Logical Reasoning)

MATH120 - College Algebra (4 Credits) College algebra studies functions and their applications. This course focuses on linear functions, quadratic functions, polynomial and rational functions, exponential and logarithmic functions, and related equations, inequalities, and graphs. Additional topics include inverse functions, systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. MATH 120 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisites: Corequisite enrollment in MATH 0098 OR Completion of MATH 0098 OR MATH 0085 OR MATH 0095 with a grade of C or higher OR Accuplacer score of 56+ in Arithmetic and 76+ in Elementary Algebra and 50+ in College Math OR Next Gen Accuplacer score 250-300 AAF OR ACT Math score 22-36 OR MCA score 1158-1164)

MATH125 - Trigonometry (3 Credits) A study of the six trigonometric functions, their inverses and their applications forms the heart of this course. First, the two common methods of angle measure are derived along with the related notions of length of arc and area of a sector. Then the trigonometric functions are defined in terms of the unit circle and their properties such as domain, range, period and amplitude are explored, along with their associated graphs. This leads to a study of identities and conditional equations. Triangle trigonometry and real-world applications follow, with an investigation of associated themes such as vectors, exponential and logarithmic functions. (Prerequisites: Next-Generation Accuplacer

AAF score of 250 or higher or Classic Accuplacer College Math score of 63 or higher or Completion of MATH 120 with a grade of C (2.0) or higher or ACT Math score of 22 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH130 - Pre-Calculus (4 Credits) This is an accelerated course covering many topics from both College Algebra and Trigonometry. These include functions, graphs of functions, analytic geometry of the conic sections, systems of equations and inequalities, elementary matrix operations and determinants, properties and applications of exponential, logarithmic and trigonometric functions, complex numbers, vectors, polar coordinates and elementary combinatorics. Should not be taken for credit in addition to either MATH 120 or MATH 125. (Prerequisites: Next-Generation Accuplacer AAF score of 250 or higher or Classic Accuplacer College Math score of 86 or higher, or ACT Math score of 23 or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH131 - Calculus I (4 Credits) This course introduces the key concepts of the derivative and the integral. Beginning with the definition of limit, the notion of continuity is developed which is perhaps the most important thread running throughout the calculus. This leads naturally to the process of differentiation and then integration, concluding with the all important Fundamental Theorem of the Calculus. Along the way, applications to classical and modern science, economics, the social sciences and other fields are explored. (Prerequisites: Next-Generation Accuplacer AAF score of 276 or higher or Classic Accuplacer College Math score of 103 or higher or ACT Math score of 24 or higher or completion of either MATH 125 or MATH 130 with a grade of C (2.0) or higher.) (MNTC 4: Mathematical/Logical Reasoning)

MATH132 - Calculus II (4 Credits) In this continuation of Calculus I, you will begin by investigating more applications of the definite integral, along with useful techniques for evaluating them. This leads in a natural way to a brief introduction to differential equations, and the evaluation of improper integrals and indeterminate forms. Next, the calculus of the transcendental functions is explored in some detail. Then the study of sequences and series is taken up, including power series and Taylor series. Important geometrical concepts such as polar coordinates, parametric equations and vectors in the plane and in space are also covered. (Prerequisites: MATH 131, with a grade of C or better) (MNTC 4: Mathematical/Logical Reasoning)

MATH154 - Elementary Statistics (4 Credits) This course introduces the essential mathematical elements of statistics, applying them to a broad range of areas, including business, economics, and the physical, biological and social sciences. Topics include measures of central tendency and dispersion, variability, graphical displays, normal and t-distributions, hypothesis testing, confidence intervals, estimation, linear regression, correlation, and other selected statistical topics. Math 154 satisfies the MNTC Category 4 Mathematical/Logical Reasoning requirement. (Prerequisite: Corequisite enrollment in MATH 0099, OR Completion of MATH 0099 OR MATH 0085 OR MATH 0095 with a grade of C or higher, OR NextGen score of 250-300 QAS, OR ACT score of 19+, OR MCA score of 1148+, OR an Accuplacer test score of 56 or above in Arithmetic AND a score of 76 or above in Elementary Algebra)

MATH1050 - Mathematics for Technical Careers (3 Credits) Designed primarily for those entering the technical fields, this course develops a number of essential mathematical techniques in algebra, trigonometry and geometry. Among other things, the participant will learn how to simplify and factor algebraic expressions, solve linear and quadratic equations and systems of linear equations, evaluate and use the six trigonometric functions in computing triangle results, and apply geometric concepts to the measurement of both two- and three-dimensional objects. This course is not a prerequisite for college level math courses. (Prerequisite: Next-Generation Accuplacer Arithmetic score of 250 to 300 and a Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher or completion of MATH 0075 with a grade of C (2.0) or higher.)

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MDLT - Medical Laboratory Technician

MDLT1810 - Laboratory Techniques and Orientation (3 Credits) This course is an orientation course that familiarizes the student with a career in the medical laboratory field. It covers basic skills in clinical laboratory techniques and provides the student with practice. Topics include: MLT/Phlebotomy program policies; certification; working with various pieces of equipment; safety; infection control; quality control; specimen collection/handling/processing; good laboratory technique and maintaining efficiency and accuracy. The practice of phlebotomy is heavily emphasized in this course. Students will continue to enhance their phlebotomy skills in other technical courses, where blood samples are needed, and also during the clinical internship. (Prerequisites: None)

MDLT1815 - Hematology I (3 Credits) This course covers basic hematology procedures involving such tests as red cell counts, white cell counts, platelet counts, hemoglobin determination, hematocrits, sedimentation rates and reticulocyte

counts. Also covered are the abnormalities of these elements which cause diseases, and bone marrow procedures. (Prerequisite: MDLT 1810 may also be taken concurrently or with Program Director permission)

MDLT1820 - Coagulation (2 Credits) This course covers the basic principles of the hemostasis, the clotting system of the body. The course of study includes the coagulation factors and their cascade sequence, vascular and platelet components, fibrinolysis, thrombosis, anticoagulant therapy and quality control. Abnormalities of the coagulation system will also be covered. (Prerequisite: MDLT 1810, & MDLT 1815 with a grade of C or higher.)

MDLT1825 - Urinalysis/Body Fluids (3 Credits) The lecture component of this course will cover basic theory in urine formation, renal physiology, and metabolic disorders that produce abnormalities in the urine. Complete urinalysis examinations will be performed in the student laboratory. Basic analysis of other body fluids will be discussed with an emphasis on laboratory methods currently in use. (Prerequisite: MDLT 1810 & MDLT 2818 with a grade of C or higher.)

MDLT1830 - Hematology II (3 Credits) This course is a continuation of MDLT 1815 Hematology I. It includes the study of anemias and leukemias, and the correlation of these disease processes. Instruction includes lecture and laboratory case studies, and the use of automated hematology analyzers. (Prerequisite: MDLT 1810 & MDLT 1815 with a grade of C or higher.)

MDLT1835 - Immunology (2 Credits) This course is a basic overview of the immune system. Laboratory instruction is designed to instruct the students in basic immunology testing methods for the correlation of immunologic disorders. (Prerequisite: MDLT 1810 & MDLT 2818 with a grade of C or higher.)

MDLT2806 - Immunohematology I (2 Credits) This course covers the introduction to both the theory and practical aspects of Immunohematology. Areas of study include red blood cell antigens and antibodies, blood typing, antibody screening, antibody identification, compatibility testing, and quality control in the blood bank.. The course is designed to prepare the student for practical training in Immunohematology. (Prerequisite: MDLT 1810, & MDLT 1815 with a grade of C or higher.)

MDLT2807 - Immunohematology II (2 Credits) This course is a continuation of MDLT 2806 Immunohematology I. The student will receive further basic training and practical instruction on both the theory and practical aspects of immunohematology. Areas of study include pretransfusion testing, transfusion therapy, adverse transfusion reactions, hemolytic disease of the newborn, hemolytic anemias, human leukocyte antigens, donor selection, and component processing. The course is designed to prepare the student for practical training in immunohematology. (Prerequisite: MDLT 1810 and MDLT 2806 with a grade of C.)

MDLT2811 - Microbiology I (3 Credits) This course covers the isolation and identification of clinically significant microorganisms. Emphasis is placed on specimen sources, growth characteristics, techniques for identification, and quality control. (Prerequisite: MDLT 1810 may be taken concurrently or with Program Director permission)

MDLT2817 - Chemistry I (4 Credits) This course covers the analysis of chemical constituents of plasma, serum, urine and other body fluids. Emphasis is placed on physiology, methodology and clinical significance of carbohydrate metabolism, non-protein nitrogen, renal and liver function, tumor markers and porphyrins. Accuracy in performance, quality control and laboratory safety is stressed. (Prerequisites: MDLT 1810 may also be taken concurrently or with Program Director permission)

MDLT2818 - Chemistry II (3 Credits) This course is a continuation of MDLT 2817 Chemistry I and includes the theory and clinical correlations of acid/base balance, liver function, cardiac function, gastrointestinal function, pancreatic function, endocrinology, therapeutic drug monitoring, toxicology, tumor markers, nutritional assessment, biochemical assessment during pregnancy, and point-of-care testing. The MLT student learns the theory and technique of each procedure, quality control, and normal values of chemical constituents analyzed. Concepts that are basic to the operation of automated laboratory instruments will be discussed. (Prerequisites: MDLT 1810 & MDLT 2817 with a grade of C or higher.)

MDLT2821 - Microbiology II (3 Credits) This course is a continuation of Microbiology I. The students will receive further basic practical instruction in the isolation and identification of clinically significant microorganisms. A short introduction to parasitology/mycology/virology/Mycobacterium species will also be included. (Prerequisite: MDLT 1810 and MDLT 2811 with a grade of C or higher.)

MDLT2825 - Clinical Practice & Orientation (1 Credit) This course covers an explanation of the hospital and clinic structure and the student's role in the clinical practice setting. The student will learn the basic knowledge necessary for effective understanding of his/her expectations and evaluations as an MLT student in the clinical practice training and his/her role as an employee after graduation. (Prerequisites: MDLT 1825, MDLT 1835, and MDLT 2807)

MDLT2826 - Clinical: Hematology & Coagulation (2 Credits) During the clinical hematology and coagulation experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2827 - Clinical: Chemistry & Immunology (2 Credits) During the clinical chemistry and immunology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2828 - Clinical: Immunoematology (2 Credits) During the clinical immunoematology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2829 - Clinical: Microbiology (3 Credits) During the clinical microbiology experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807.)

MDLT2830 - Clinical: Urinalysis/Body Fluids (1 Credit) During the clinical urinalysis/body fluids experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2831 - Clinical: Phlebotomy (1 Credit) During the clinical phlebotomy experience, the student is assigned to an affiliated hospital/clinic laboratory for the purpose of acquiring practical experience in a laboratory setting while under direct supervision. The experience allows the student to apply knowledge learned in the didactic phase of their training with practical hands-on experience for preparation of employment in a clinical laboratory. Students practice basic laboratory procedures/techniques, and phlebotomy. (Prerequisites: MDLT 1825, 1835, 2807)

MDLT2900 - Clinical: Hematology (3 Credits) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunoematology, Immunology, Microbiology, and Coagulation.

MDLT2901 - Clinical: Chemistry (3 Credits) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunoematology, Immunology, Microbiology, and Coagulation.

MDLT2902 - Clinical: Urinalysis and Body Fluids (2 Credits) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunoematology, Immunology, Microbiology, and Coagulation.

MDLT2903 - Clinical: Immunoematology (4 Credits) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunoematology, Immunology, Microbiology, and Coagulation.

MDLT2904 - Clinical: Immunology (1 Credit) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunoematology, Immunology, Microbiology, and Coagulation.

MDLT2905 - Clinical: Microbiology (3 Credits) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunohematology, Immunology, Microbiology, and Coagulation.

MDLT2906 - Clinical: Coagulation (1 Credit) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunohematology, Immunology, Microbiology, and Coagulation.

MDLT2907 - Clinical: Urinalysis and Body Fluids (1 Credit) In the clinical laboratory sequence, the student continues their education in a hospital or clinic laboratory under the supervision of a certified Medical Technologist. The experience allows the student to apply knowledge learned in the didactic phase in an employment-like setting. Students rotate through all areas of the medical laboratory gaining experience and practice in basic medical laboratory techniques, procedures and phlebotomy. (Prerequisites: completion of all MDLT technical courses and general education courses OR Program Director permission) Clinical sequence courses consist of the following: Hematology, Chemistry, Urinalysis and Body Fluids, Immunohematology, Immunology, Microbiology, and Coagulation.

MDLT2990 - Special Topics (1 - 6 Credits) This course is designed for MLT/Phlebotomy students who after a lapse in their MLT/Phlebotomy training due to circumstances beyond their control, require a review in basic medical laboratory techniques, require phlebotomy technique re-training, need additional time to complete assigned projects for their program major, etc. Each student will be advised by the Program Director. Enrollment credits are variable and will be determined by individual student circumstances. (Prerequisite: Program Director permission)

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MEAG - Agri-Business

MEAG1001 - Mechatronics Applications in Agriculture (3 Credits) This class is designed to introduce students to agricultural practices that have used automation technology to reduce input costs, decrease manual labor, improve safety, and/or increase efficiency and accuracy. Students will get a historic perspective of technological advances in agriculture, a sense of the current reality of mechatronics use in agribusiness, and evaluate areas ripe for automation upgrades. (Prerequisite: None)

MEAG1206 - Precision Agriculture Equipment (3 Credits) This class is an introduction to many of the equipment systems involved in precision agriculture. The areas covered will include equipment used for steering and guidance, fertilizer and chemical application, and harvest data collection. Basic understanding of DC electrical systems and basic hydraulics will be reviewed along with computer skills needed for upgrading system components. Instruction will include offsite tours and demonstrations to assure current information is available. (Prerequisites: None)

MEAG1207 - Precision Agriculture Software (3 Credits) This course will provide hands-on training in Spatial Management System (SMS) precision agriculture software including yield monitoring, planting, spraying, and more. It will cover an introduction of basic SMS systems used in agriculture, software troubleshooting, data collection and analysis. Students will also be exposed to complex mapping systems including field bordering, zone mapping, and yield mapping. (Prerequisite: PLSC 1205)

MEAG1500 - Facility Maintenance (3 Credits) This course covers...farm and residential electrical wiring. Practical 120/240 volt circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels included. Students will be wiring circuits according to code. Plumbing processes of Polyvinyl Chloride (PVC) and copper will be included. Another component of this class includes; OxyAcetylene welding, gas torch and/or plasma cutting and several forms of Arc welding. Students will spend time in the welding lab completing the required welds. Electrical and welding safety will be stressed. (Prerequisites: None)

MEAG1510 - Facility Operations Maintenance (3 Credits) This course includes a detailed look at maintenance and servicing of production facilities: electrical, plumbing, and mechanical equipment. Trouble shooting of ventilation, plumbing, feed lines, curtain controls, and electric motors will be discussed. Included also in the course are practical 120/240 volt wiring, electrical safety, device selection, and installation methods that apply to workers in livestock and production facilities. This course will also cover maintenance of heaters, waste handling, and facility equipment used in livestock facilities. (Prerequisites: None)

MEAG1610 - Ag Equipment Maintenance (3 Credits) This course covers basic harvesting, tillage and planting equipment. The student will learn all component parts and proper adjustments of equipment. Machine adjustment may be accomplished on demonstration units, operator manual examples, actual equipment or field trips. In the machinery operation, set-up, and reconditioning portion, the student identifies preventative maintenance, set-up and reconditioning procedures, follows the set-up and operators manual, uses a check sheet and torque chart. (Prerequisites: None)

MEAG1700 - Agricultural Industry Machinery Maintenance (3 Credits) This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel-powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, and grain elevators. The course will also cover tillage, crop protection and planting equipment. Students will learn all component parts and proper adjustment of the particular units. Machine adjustment may be accomplished on demonstration units, operator manual examples or on actual industry equipment. The course will also cover chemical, fertilizer, pesticide handling considerations. (Prerequisites: None)

MEAG2200 - Planning Farmstead Environments (3 Credits) This course covers farm building materials and methods of construction. Farmstead planning concepts are examined and applied to the student's home farm situation. Design and drawing of various types of farm buildings are included. The storing, drying, processing and handling of grain and feed are included. Ventilation of livestock buildings and animal waste management is emphasized. Students will gain experience in sizing and selecting equipment for agricultural materials handling applications. (Prerequisite: None)

MEAG2300 - Ag Equipment Maintenance I (4 Credits) This course covers a theory and service competencies necessary to maintain small engine, gasoline and diesel powered vehicles on the farm. Students will gain an awareness of equipment maintenance programs. The electrical portion covers farm and residential electrical wiring. Practical 120/240 circuit wiring, electrical safety, device selection, installation methods, grounding, bonding and service entrance panels are included. The final component includes both electric arc, gas welding and a short section on the wire welding system. Students will spend time in the welding lab completing welds. NOTE: Students will merge with the MEAG 1500 Facility Maintenance plus combine at the end of the Agribusiness Spring semester schedule (mid-April) to enhance the ability to successfully teach the ag equipment specifics in an agricultural education program. (Prerequisite: None)

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MECA - Mechatronics

MECA1000 - Introduction to Mechatronics (3 Credits) Introduction to Engineering Design is a foundation course in the Mechatronics program. By exploring various technology systems and manufacturing processes, students will learn how technicians use technology in manufacturing and production settings. Theoretical and hands-on problem-solving activities are emphasized. This course will also engage the student to the proper and safe use of hand and shop tools. Hands-on labs and software are used as learning tools for students to design and produce projects related to industry. Students should take this as the first course in the sequence of Mechatronics courses. This course will also provide an overview of decision-making techniques and the application and benefits of decision-making using the Value Method process. (Prerequisites: None)

MECA1110 - Solidworks (2 Credits) This course is designed to teach the student the use of Solidworks mechanical design automation software. The student will make drawings of parts and assemblies related to the field of Mechatronics. (Prerequisites: None)

MECA1122 - Electricity - Devices and Circuits I (3 Credits) This course provides an exploration of the basics in electricity and electronics. Topics include an overview of direct current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1131 - Computer Applications (3 Credits) This course is designed to provide students programs enrolled in technical programs an understanding of how the computer can be used as a tool to address a variety of applications utilizing input and output sources common to industry. Activities will also include, but are not limited to browser usage, word processing, spreadsheets, graphing capabilities, engineering scheduling applications and modeling and simulation software. (Prerequisites: None)

MECA1140 - Introduction to Geometric Dimensioning & Tolerancing (1 Credit) Students receive step-by-step instruction in Geometric Dimensioning & Tolerancing (GD&T) fundamentals with detailed explanations of each topic, GD&T symbols and definitions. Practice exercises are used throughout the instruction to provide additional discussion and learning opportunities. Students also learn to apply GD&T to industry-standard drawings. (Prerequisite: None)

MECA1150 - Boiler Operation Principles (1 Credit) This course is designed for anyone who needs to understand fundamental boiler operation in order to improve efficiencies and safety at their industrial plants or large building facilities. This course can also help students prepare for Boiler Operating Licensing exams. Individuals involved with residential hot water systems will also find this course extremely valuable. (Prerequisite: None)

MECA1210 - Digital Electronics (3 Credits) This course explores the general fundamentals of digital electronic circuits. To learn the theory and operation of digital electronics, students will get hands-on experience with basic logic gates; sequential logic circuits, such as flip-flops, counters, and shift registers; and combinational logic circuits that include encoders, decoders, multiplexers, and arithmetic devices. A variety of measurement equipment will be used to test and troubleshoot solid state and digital circuits created on breadboards during lab sessions. Teamwork, critical thinking skills, and practical applications of circuits will be emphasized. (Prerequisite: None)

MECA1220 - Mechanical Systems (3 Credits) This course includes an introduction to mechanical drive systems, power transmission systems, chain drives, v-belt and, multiple shaft drives, linear motion assemblies, and auxiliary control functions. The student will study the application of spur, helical, bevel and worm gears as well as the use of keys, pins, and splines to attach gears to shafts. Machine elements such as; displacement, velocity, acceleration, springs, power screws, brakes and clutches will also be topics covered. Computer simulation and 3D software will be used throughout the course. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: PHYS 101 or comparable with approval of Instructor)

MECA1222 - Electricity - Devices and Circuits II (3 Credits) This course provides an exploration of the basics in electricity and electronics. Topics include an overview of alternating current, circuit laws, components, and use of test equipment. Students learn the basic technique of troubleshooting electric circuits, including measurement techniques, analysis of faults, and repair procedures. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: MECA 1122))

MECA1223 - Mechanical Systems 1 (3 Credits) This course includes an introduction to mechanical drawings, Geometric Dimensioning & Tolerancing and simple machines. The student will study the application and kinematic motion of simple machines elements. In addition, lab work will emphasize the safe use of hand tools, portable power tools and mechanical measuring tools and instruments. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA1230 - Automated Process Measurement (1 Credit) This course covers applications of virtual measurement tools for industrial applications. Topics include basic virtual tool programming concepts, experiment setup and result presentation. (Prerequisites: MECA 1130 or instructor permission required)

MECA1240 - Quality Concepts in Manufacturing (2 Credits) This is an introductory course to quality for students who are pursuing careers in technical fields. Topics include fundamentals of statistics, control chart variables and attributes, reliability and quality costs. This course also introduces the student to the requirements of ISO 9000, Lean concepts, Value Stream Mapping and 5S philosophies, principles and techniques of managing quality. (Prerequisites: Must have a score of 56 or higher on the Arithmetic portion of the Accuplacer test or Instructor approval)

MECA1250 - Mechatronics Systems Operations I (3 Credits) This course will provide the student with the principles of programmable logic controllers (PLC) hardware and fundamental sequence control systems. The student will gain essential knowledge necessary to create and edit basic PLC programs that will include timers, counters and special function blocks. As well as gaining an understanding of interfacing discrete input-output (I/O). The student will also perform fundamental PLC troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122)

MECA1260 - Microprocessor Systems (3 Credits) This course will provide students with the knowledge required to understand, program, and apply microcontrollers using 8 and 16 bit microcontrollers. The student will learn the basics of interfacing embedded system hardware and software by programming and interfacing simple peripheral circuitry using microprocessor development boards, programming environments, and peripheral application modules. Topics will include introduction to programming in assembler and C programming, applying C coding standards, controlling inputs and outputs, human interface devices such as displays and key pads, and motion control. Technical writing skills, embedded coding standards, and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1122, 1125, 1130)

MECA1270 - Modeling and Simulation (3 Credits) This course will provide students with the understanding of the interaction of the parts of a system, and of the system as a whole. A unified approach to modeling of dynamic systems using computer simulation and model validation is used. Emphasis will be on modeling and simulation of mechanical parts and assemblies, electronic circuits, fluid power systems and PLC controlled automation systems. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisites: MECA 1131)

MECA2110 - Sensors and Control (3 Credits) This course will provide students with the principles of measurement and control systems. The student will gain an understanding of different sensor technologies used to measure and detect physical properties used in a variety of electro mechanical, electro hydraulic and electro pneumatic systems. The student, through lab work, will also learn how to use and troubleshoot sensors used in open and closed loop control systems. Technical writing skills and safety procedures will be implemented throughout the course. This course assumes the student understands basic electrical, mechanical, and programming concepts. (Prerequisites: MECA 1122)

MECA2115 - SolidWorks II (3 Credits) Student will advance their SolidWorks skills beyond core concepts of parts, assemblies and drawings. Learning outcomes are designed to prepare students in the more advanced concepts evaluated in the Certified SolidWorks Associate Exam in areas such as: Advanced Parts, Advanced Assemblies, Advanced Surfacing, Sheet Metal, Routing and Simulation. (Prerequisite: None)

MECA2120 - Fluid Power 1 (3 Credits) This course provides the basics of fluid powered devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to apply basic laws of fluid mechanics to design and specify characteristics of a pneumatic system; select and size actuators and control valves, and match the pneumatic components with its American National Standards Institute (ANSI) symbol. Upon completion of this course, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of pneumatic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: None)

MECA2123 - Mechanical Systems 2 (3 Credits) This course includes an introduction to mechanical drives, bearing mechanisms, shaft alignment, shaft coupling, clutches and brakes. Also included is an introduction to industrial rigging using slings, hoists, cranes, scaffolds and ladders. Troubleshooting of mechanical systems will be emphasized. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1223 and PHYS 101 or equivalent)

MECA2130 - Fluid Power II (3 Credits) This course provides the basics of hydraulically operated devices and systems found in modern industrial machinery and automation. Topics include proper safety procedures, basic laws of fluid mechanics, standard symbols, pumps, control valves, control assemblies, actuators, maintenance procedures, and switching and control devices. At the completion of this course, the student will be able to design and specify characteristics of a hydraulic system, select and size actuators, and match the hydraulic component name with its American National Standards Institute (ANSI) symbol. Additionally, the student should be able to identify long-term symptoms associated with a lack of preventive maintenance of hydraulic components while demonstrating good safety practices including lock out procedures. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2120)

MECA2150 - Mechatronics Systems Operations II (3 Credits) This course will focus on advanced principles of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of analog inputs and outputs, internal registers and tables, comparison functions, computational functions, data move functions, subroutines, data manipulation and sequencing functions, high speed counting, analog functions, trigonometric and advanced math functions. Technical writing skills and safety procedures will be implemented throughout the course. (Prerequisite: MECA 1250)

MECA2220 - Micromechanical Measurement and Positioning (4 Credits) This course will provide students with the principles of measurement, control and monitoring systems. The student will gain an understanding of different measurement and tracking tools such as vision systems, RFID tags and sensor technologies used to measure, detect and track the physical properties used in a variety of mechanical and fluid power systems. The student, through lab work, will also learn how to implement this knowledge in control systems. Technical writing skills and safety procedures will be implemented throughout the course. This course assumes the student understands basic electrical, mechanical, and programming concepts. (Prerequisites: MECA 2120, and 2150, or Instructor approval)

MECA2230 - Robotics (4 Credits) This course will provide students with the principles of programming and control of automated systems and multi-axis robotic systems in an industrial environment. The student will gain the ability to simulate program, and implement various types of automated machine systems, integrate actuators and sensors commonly found in robotic systems, and setup an automated robotic work cell. The student will also perform fundamental automated system troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. This course builds on the student's understanding of basic electrical, mechanical, pneumatic, and programming concepts. (Prerequisite: MECA 2150)

MECA2235 - Robotics (3 Credits) This course will provide students with the principles of programming and control of multi-axis robotic systems used in an industrial environment. The student will gain the ability to program FANUC Robots

and setup an automated robotic work cell. The student will also perform fundamental automated system troubleshooting procedures. Technical writing skills and safety procedures will be implemented throughout the course. This course builds on the student's understanding of basic electrical, mechanical and programming concepts. (Prerequisites: MECA 2110 Sensors and Controls and MECA 2150 Mechatronics System Operation II)

MECA2240 - Senior Project (1 - 5 Credits) The Senior Project at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement. The project must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Project is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. This course may also include an internship and will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisite: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor)

MECA2241 - Senior Internship (1 - 5 Credits) The Senior Internship at South Central College (SCC) is an opportunity for students to demonstrate what they know and to showcase their achievement in an industry setting. The internship must be successfully completed as a component of the Mechatronics program, which is a required course for all graduating seniors. The Senior Internship is a fitting conclusion to a student's education because through this endeavor, one is able to demonstrate accumulated skills in reasoning, research, problem solving, human interaction, organization, and public speaking. The internship will follow the SCC internship guidelines. This course may also be taken in variable increments of 1 to 5 credits. (Prerequisites: MECA 2150 - Mechatronics Systems Operations I or consent of Instructor).

MECA2250 - Mechatronics Systems Operations III (3 Credits) This course will focus on advanced principals of Programmable Logic Controllers (PLC). The student will become familiar with interfacing input and output with automation motion control systems used in manufacturing. Introduction of PLC networking, Supervisory Control and Data Acquisition (SCADA), Proportional - Integral - Derivative (PID) Control and the use of Human Machine Interface (HMI) in a Control System. Troubleshooting exercises, technical writing assignments and safety procedures will be implemented throughout the course. (Prerequisite: MECA 2150)

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Course Descriptions

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MGT - Marketing

MGT2800 - Sales Management (3 Credits) This course is designed to provide the student with an opportunity to apply concepts and competencies gained from their academic studies. Training plans that are competency-based will be developed. (Prerequisites: MKT 1800)

MGT2810 - Retail Management (3 Credits) This course focuses on the changing demographics of retail marketing, the growth of new retail formats and the use of information technology to enable quick responses to market dynamics through customer service, vendor-retailer partnering and employee diversity. (Prerequisites: None)

MGT2820 - Introduction to Management Information Systems (3 Credits) This course is an introduction to management information systems (MIS) and involves the interactions between technology and business practices. The course involves the planning, organizing and controlling of information technologies related to organizational objectives. Specific attention will be given to database management with a focus on contact management. The course also involves the use of spreadsheet applications, collaborative tools, and other technologies utilized in the business environment. (Prerequisites: None)

MGT2830 - Retail Operations (3 Credits) This course focuses on the components of retail operations and design. Retail design includes the necessary use of display for the effective visual presentation of goods and services. Opportunities will be provided to utilize the principles and techniques that are common to display work in various types of businesses. Emphasis will be placed on design, color, tools, materials and installation of displays. Topics include: design principles, color principles, tools and materials of the trade, props and fixtures, lighting and signing, installation of displays, store planning and safety.

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MKT - Marketing

MKT1800 - Introduction to Sales (3 Credits) This course serves as a foundation for future sales courses. The instructional approach combines both traditional and innovative presentations of course content that is dependent upon student involvement. The content covers the role of sales, steps of the selling process, the importance of communication skills and a positive attitude. In addition, special attention is devoted throughout the course on how the salesperson is viewed as an ambassador for the company that they represent. (Prerequisite: None)

MKT1810 - Principles of Marketing (3 Credits) This course introduces the student to the dynamic field of marketing. The course will examine the different strategies and techniques used by business today to market their products and services to the consumer. The major emphasis will revolve around the four "P's" of marketing; product, price, place and promotion. (Prerequisite: None)

MKT1817 - Internship (3 Credits) This course allows the student to receive practical experience in his/her chosen career area. A training plan outlining what will be learned is jointly developed among the student, employer and college. (Prerequisites: None)

MKT1820 - Introduction to Business (3 Credits) This course covers the basic fundamentals of the world of business. Emphasis will be placed on the nature of business and the trends that will change the way business is conducted in the twenty-first century. The latest technology and business terms will provide an updated look at the business world.

MKT1830 - Customer Service (3 Credits) This course covers the importance of customer service and how the student can achieve quality customer service. Total Quality Management is an essential part of customer service and how quality service is relayed to the consumer. This course explains how to develop a service attitude, dealing with various types of customers, handling customer complaints, decision making and using the team concept.

MKT1840 - Principles of Advertising (3 Credits) This course provides a broad overview of the entire advertising and sales promotion industry. The focus will cover the entire spectrum of paid and non-paid activities designed to encourage the purchase and use of products, services and ideas. Discussion will include theory and practice about advertising media, public relations, packaging, special events, creation of ads and evaluation.

MKT1850 - Professional Development I (1 Credit) This course focuses on the importance of professionalism and leadership opportunities. Students will have the opportunity to improve their understanding, interpretation and participation in a variety of activities within the college and their community. Attendance in professional conferences, seminars and meetings will be required.

MKT1860 - Marketing and Business Management Practicum (2 Credits) This course is designed to assist Marketing and Business Management Students in learning more about actively giving back to the community through student learning projects and participating in internationally affiliated competitions through Collegiate DECA. Students will experience volunteer opportunities and professional growth opportunities through classroom projects and by attending professional development conferences in and outside of the state of Minnesota. Students will have the opportunity to meet and compete against similar two and four year institutions to improve personal and professional growth in the field of Marketing and Business Management. (Prerequisite: None)

MKT1875 - Internet Marketing (2 Credits) This course provides an overview of Internet marketing and electronic commerce marketing. Issues involved with Business to Consumer (B2C), Business to Business (B2B), and Consumer to Consumer (C2C) E-Commerce will be explored.

MKT1900 - Principles of Management (3 Credits) This course will introduce the student to the responsibilities and roles of managers and supervisors. Course focus will be on topics related to the management functions of planning, organizing, leading and controlling. Project management, the decision-making process, organizational structures and team skills will be explored. (Prerequisites: None)

MKT1910 - Entrepreneurship (3 Credits) This course utilizes a variety of tools to stimulate student interest and to promote learning. We will discuss the importance of entrepreneurship in our business climate with an emphasis on the small business. The course culminates with each student creating parts of a business plan. (Prerequisites: None)

MKT1920 - Marketing Research (3 Credits) This course involves practical application of the concepts of involved in marketing research. Students will work in teams to explore the fundamentals of marketing research by completing a major project. The course content includes: finding secondary data, conducting focus groups, organizing observational research, creating surveys, statistical analysis and report writing.

MKT1930 - Human Resource Management (3 Credits) This course focuses on human resource management issues. The course covers the techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation and

other areas essential to the personnel function. (Prerequisites: None)

MKT1940 - Leadership Strategies (3 Credits) This course is designed to help students recognize their leadership potential and help improve their interpersonal skills needed in today's workplace. Students will explore various leadership strategies through self assessment and reflection. Self assessments will then be used to provide the framework for developing career portfolios. Resume development, interviewing skills and networking are an integral part of the course.

MKT1950 - Special Topics in Marketing (2 Credits) All Special Topics in Marketing courses help students understand how marketing is part of and impacts consumers, business and society. Students will explore broad marketing concepts such as products, price, distribution and promotion through a specific topic of relevance. Any Special Topics in Marketing offering will be specially designed by an SCC Marketing instructor to appeal to SCC students. The instructor has chosen the subject material related to his or her interests, students' interests, or his or her teaching expertise. (Prerequisite: None)

MKT2817 - Internship (3 Credits) This course allows students the opportunity to continue to develop their marketing & management skills in an internship. (Prerequisites: None)

MKT2827 - Marketing Management Internship (1 - 3 Credits) This course allows the student to receive practical experience in his/her chosen career area. This internship is designed to offer students a customized experience. A training plan, outlining what will be learned, is jointly developed between the student, employer and the department site coordinator. This course is designed for students in Restaurant Management who need a minimum of 9 credits of internship or for Marketing Management or Business Management students wishing to further their internship experience with elective credits. (Prerequisites: It is recommended, after advisor review, that students register for this variable credit course after completing MKT 1817 & 2817)

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Course Descriptions

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MTT - Machine Tool Technology

MTT1110 - CNC Milling Level I (5 Credits) This course provides the student an introduction to basic milling operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) milling practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1120 - CNC Turning Level I (5 Credits) This course provides the student an introduction to basic lathe operations. Upon completion of this course the student will have an understanding of manual and Computer Numerical Control (CNC) lathe turning practices as well as gain knowledge in tooling, machining practices and applied mathematics. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1130 - Job Planning, Benchwork and Layout Level I (3 Credits) This course provides an exploration of the basics of hand tools, understanding drawings, manual machines and layout. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic Geometric Dimensioning and Tolerancing (GD&T) feature control frames. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisites: Declare MTT as a major)

MTT1140 - Measurement, Materials and Safety Level I (3 Credits) This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. Topics include an overview of measurement techniques, materials, safety, machine tool math, quality control and maintenance. Teamwork, critical thinking and problem solving are emphasized. Hands-on experience and practical applications are included. (Prerequisite: Declare MTT as a major)

MTT1150 - Machining Computations (1 Credit) This course is designed to provide foundations of the mathematical processes used in the technical field of machine tool practices. Topics will include arithmetic, algebra, geometry, trigonometry, and applications. (Prerequisite: Declare MTT as a major)

MTT1210 - Concept Engineering I (4 Credits) In this course, students will continue developing their understanding of machining and use of tools. Their skills are more fully developed in terms of lathe, milling, grinding and drill press. Hands-on experience and practical application opportunities allow students to increase proficiency with machine tools. (Prerequisites: MTT 1130 and MTT 1140)

MTT1220 - CNC Programming I (4 Credits) This course prepares students to become an introductory (Computer Numerical Control (CNC) machine operator. The topics include machine safety, proper tool setup, tool/work offsets and CNC controller layout. This also includes a basic introduction to Mastercam. (Prerequisites: MTT 1110 and MTT 1120)

MTT1230 - Quality Assurance I (2 Credits) This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T). (Prerequisites: MTT 1130 and MTT 1140)

MTT1240 - Applications I (3 Credits) In this course, students will have the opportunity to continue to develop their skills on the lathe and mill with practical hands-on experiences in a lab setting. A continuation of set-up, operation and safety of lathe and mill will be reinforced in this course. (Prerequisites: MTT 1110 and MTT 1120)

MTT2110 - Concept Engineering II (4 Credits) This course is an introduction to the grinding process as it pertains to machining. This includes an understanding of using pedestal grinders and an introduction to surface grinding. Fundamentals of grinding, such as appropriate wheel identification and use, will be addressed. Proper set-up, operation and safety of the bench, pedestal and surface grinders will be introduced in a lab setting. (Prerequisite: MTT 1210)

MTT2120 - CNC Programming II (4 Credits) This course provides students with continuing opportunities to work with computer numerical control (CNC) programming, building on what was learned in the previous programming course. Topics include lathe programming, program downloading, editing and advanced set-ups and operations. (Prerequisite: MTT 1220).

MTT2130 - Quality Assurance II (2 Credits) This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued hands-on interaction with symbols, notations, Geometric Dimensioning and Tolerancing (GD&T), inspection equipment and continuous process improvement. (Prerequisite: MTT 1230)

MTT2140 - Applications II (3 Credits) This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications course. Additional material is also introduced: topics include machining with carbide, producing heat treated parts and basic surface grinding. (Prerequisite: MTT 1240)

MTT2210 - Concept Engineering III (4 Credits) The purpose of this course is to present the fundamentals of mold construction, processes involved in using molds and die casting. The knowledge and skills presented in this course will introduce the machinist to various terminologies and functions of Solidworks through 3D solid modeling and blueprint creation. (Prerequisite: MTT 2110)

MTT2220 - CNC Programming III (4 Credits) This course provides students with continuing opportunities to work with CNC programming, building on what was learned in the previous programming course. Additional material includes alternative work holding and advanced tooling set-up and operation for production of an advanced project. (Prerequisite: MTT 2120).

MTT2230 - Quality Assurance III (2 Credits) This course is a continuation of Quality Assurance II. New topics include more alternative measuring techniques and final inspection of advanced project. (Prerequisites: MTT 2130)

MTT2240 - Applications III (3 Credits) This course is a continuation of Applications, new topics include alternative work holding and advanced tooling set-up and operation for production of capstone projects. (Prerequisite: MTT 2140)

MTT2250 - MTT Capstone (4 Credits) This course provides students with continuing opportunities to work on applying their skills, building on what was learned in the previous Applications courses. Additional material is also introduced: topics include advanced grinding techniques. This is a variable credit course. (Prerequisites: MTT 2130 and MTT 2140)

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MULT - Multimedia Technology

MULT2285 - Multimedia Technology Capstone (1 - 4 Credits) The student will propose and produce a project in their area of interest. This plan is based on the college's and the program's core competencies. One credit of Capstone is equal to 32 hours. (Prerequisites: ART 140 Digital Photography 1 and ART 170 Video Production 1, OR instructor permission)

MULT2295 - Multimedia Technology Internship (1 - 4 Credits) This course is designed to provide the student with a purposeful occupational experience in the Multimedia Technology field. Each internship is an individualized experience. A

plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. One credit of Internship is equal to 48 hours. (Prerequisites: ART 140 Digital Photography 1 and ART 170 Video Production 1, OR instructor permission)

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Course Descriptions

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NURS - Nursing

NURS1110 - Foundation of Nursing (2 Credits) This course introduces the student to the basic concepts in nursing. Students will discuss the role of the LPN as it relates to the nursing process and professionalism. Communication strategies will be applied for communication techniques, standardized communication, and documentation methods. Students will discuss cultural influences in health care. Legal and ethical aspects related to nursing will be discussed. Physical comfort, safety concerns, and nutrition are identified for health promotion using evidence-based practice concepts. Physical and psychological disorders are explained in the elderly population. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1150 - Clinical Foundation (3 Credits) This course provides an opportunity to integrate laboratory and actual clinical learning with supervised client care in a healthcare setting. Students utilize the nursing process to collect data, implement nursing interventions and administer medications, and begin the documentation process. Nursing care is individualized to meet each client's needs with consideration of the client's culture. Emphasis is placed on organization, critical thinking, therapeutic communication and a holistic approach to client care. Professional behavior is an expectation in this course. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1175 - Nursing Interventions (3 Credits) This course provides students the opportunity to learn nursing procedures in a simulated supervised lab setting. Basic comfort and safety devices will be demonstrated. Body systems are reviewed with an emphasis on the neurological, respiratory, gastrointestinal and genitourinary systems. Infection control theories and infection preventative measures will be described. Demonstration of interventions and use of devices related to asepsis, oxygenation, and elimination will be achieved. Introduction to common conditions associated with assessments and interventions will be explored. Concepts for care of the elderly will be applied. Critical thinking and medical terminology are threaded throughout the course. Students will be required to demonstrate skills learned in the laboratory setting. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1220 - Pharmacology for Practical Nurses (2 Credits) This course will address basic concepts of pharmacology and the effects on the body. The course focuses on drug classifications as they apply to all body systems. Understanding the therapeutic and adverse drug effects and appropriate actions will be addressed. The student will describe federal regulations to guide practice. The role of the practical nurse for client medication administration will be discussed using credible resources. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1275 - Medication Administration (1 Credit) This course introduces the student to the six rights of medication administration. The course will include non-parenteral administration routes including: oral, topical, nasal, rectal, eye, and ear. The course will also address safe medication administration utilizing the parenteral routes including: topical, intradermal, subcutaneous, intramuscular, and intravascular. Medication dosage calculations competency is expected. Medical terminology and abbreviations are threaded throughout the course. Best practices related to medication administration for the practical nurse will be used. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS1310 - Application of Nursing (4 Credits) This course introduces the student to disease processes of the body systems: integumentary, respiratory, gastrointestinal, genitourinary, endocrine, cardiovascular, hematological, lymphatic, immune, neurological, sensory, reproductive, and musculoskeletal. Students will recognize signs and symptoms, as well as identify diagnostic tests, medications, and nutrition in the study of body system diseases. The student will use the nursing process to select effective treatments and interventions specific to the altered body systems. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1350 - Clinical Application (4 Credits) Students will apply nursing theories for clients with a variety of health conditions and altered body systems. Application of knowledge includes client interaction across the lifespan in a variety of laboratory and actual health care settings. Nursing interventions are individualized to meet each client's needs with consideration of the client's culture. The nursing process is implemented with an emphasis on critical thinking. Organizational skills are developed with an opportunity to care for multiple clients. Students may have the opportunity to

observe the role of the nurse in specialty areas. Students will demonstrate effective communication with other members of the health care team. Professional nursing behavior will be demonstrated. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1375 - Laboratory Application (2 Credits) This course facilitates preparation for the future role of a licensed practical nurse (LPN). Emphasis is placed on understanding concepts of organizational structure and managing care as it relates to the LPN role and practice. Students will demonstrate ability to function within a variety of simulated client situations across the lifespan. Information technology including evidence-based practice will be used to meet client needs. Time management, prioritization, and effective, professional communication will be used to manage client care, enhance teamwork, and provide accurate information as a member of the interdisciplinary team. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1410 - Maternal Child Nursing (2 Credits) The concepts of pregnancy, the fundamental principles of labor and delivery, and nursing care of the mother and newborn will be described and applied. The student is introduced to the fundamental concepts of growth and development. Common illnesses and disorders of the newborn and the child will be discussed. Throughout the course, maternal child nursing and pediatric care will include communication skills, specific medications, vaccinations, laboratory tests, assessments, nutrition, and cultural influences. Maternal child and pediatric quality care issues and current will be discussed. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS1610 - Psychosocial Nursing (2 Credits) This course introduces students to concepts in mental health and mental illness. The impact of culture and value systems on mental health is identified. Treatments discussed include medication and behavior therapy, crisis intervention, and group therapy. Appropriate nursing interventions for clients exhibiting maladaptive behaviors will be discussed. Clinical experience is included to reinforce theoretical concepts and quality client care. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2200 - LPN to RN Role Transition (4 Credits) This course is intended to assist students to transition from the role of the Licensed Practical Nurse to the Associate Degree Nurse. Learning opportunities will occur in lecture, laboratory, and clinical settings. Transitional topics include differences in the scope of practice between the licensed practical nurse and the registered nurse. The nursing process is used as a framework for critical thinking and problem solving. Current and future trends in healthcare will be explored. Legal and ethical issues as they relate to nursing are discussed. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2220 - Semester 1 Fundamentals (1 Credit) This course introduces the student to the basic concepts in nursing. Topics include: nursing process, critical thinking, communication, cultural competence, professionalism, the multi-disciplinary team, scope of practice, nutritional concepts, and legal and ethical issues. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2230 - Semester 1 Pharmacology (2 Credits) This course provides students the opportunity to learn pharmacology concepts and biological influences on body systems. Drug classifications will provide the foundation for learning medications within groups including desired and undesired effects. Standards for safe practice will be identified. Students will use the nursing process for medication management. Use of current pharmacology and technology resources will be identified. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2240 - Fundamental Concepts (2 Credits) This course introduces the student to the basic concepts in nursing. Topics include: nursing process, critical thinking, communication, cultural competence, professionalism, the multi-disciplinary team, scope of practice, nutritional concepts, and legal and ethical issues. (Prerequisites: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2250 - Semester 1 Clinical Practice (2 Credits) This course provides an opportunity to integrate laboratory and supervised client care in the long-term health care setting. Students utilize the Nursing Process to collect data, implement nursing interventions and administer medications. Emphasis is placed on organization, critical thinking, therapeutic communication, and use of the EHR (electronic health record). Professional behavior will be modeled including ethics, maintaining confidentiality, and recognizing the hierarchy structure in health care. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2275 - Semester 1 Skills Lab (2 Credits) This course provides students the opportunity to learn basic nursing procedures, equipment, and health assessments in the laboratory setting. The six rights of medication administration and dosage calculation will be explained and practiced. Medical terminology, abbreviations, and documentation will be threaded throughout the course. Credible nursing resources will be identified. Competencies related to infection control, asepsis, patient safety, mobility, vital sign measurements, oxygenation, and elimination will be achieved. (Prerequisite: Acceptance into Nursing Program is required in order to register for Nursing Courses)

NURS2320 - Semester 2 Med-Surg Basics (3 Credits) This course will focus on the medical-surgical nursing basics for assessment and planning of the care for adult patient with common illnesses. The emphasis is on the following

systems/conditions: cardioavascular, respiratory, endocrine, neurological, musculoskeletal, gastrointestinal, and renal. Case studies, discussions, group projects, software programs, and exams will be utilized in identifying the patient's response to illness. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2350 - Semester 2 Clinical Practice (4 Credits) Students apply theory related to alteration in body systems through observation, assessment and interaction with clients in laboratory and acute care settings. Nursing interventions are individualized to meet each client's needs with consideration of the client's culture. The Nursing Process is implemented with an emphasis on critical thinking. Organizational skills are developed with opportunities to care for multiple clients. Students will demonstrate effective communication with other members of the multidisciplinary health care team. Professional nursing behavior will be demonstrated. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2375 - Semester 2 Skills Lab and Pharmacology (2 Credits) Students will refine nursing skills including performing a health history, assessments, pharmacology, math competence, and advanced skills in the laboratory setting to enhance the acute care clinical experiences. (Prerequisites: Successfully complete all Semester 1 Courses in order to advance to Semester 2 Courses)

NURS2420 - Semester 3 Maternal-Child Health (2 Credits) This course introduces the student to the specialty area of Maternal Child Health. It will explore the unique health care considerations of women, children and their families. Incorporating growth and development theories, culture, legal, and ethical implications, and family centered patient education. This course explores antepartum, intrapartum, postpartum, well-child care, and pediatric health issues and health promotion. The importance of family centered care is emphasized. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2430 - Semester 3 Mental Health (2 Credits) This course introduces the student to the specialty area of Mental Health. The Mental Health content will explore the unique health care considerations for persons with mental illness across the lifespan. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2450 - Semester 3 Clinical Practice (4 Credits) This course will focus on the client with specialized needs across the lifespan. Students will have the opportunity to explore the wonder of human gestation from conception to post-partum care of the newborn and mother. Pediatric nursing will be experienced in the clinical and simulation setting where theories of growth and development will be foundational in designing patient care. Family-centered care will be examined as the context of client development, response to illness and health promotion. External systems such as culture and religion will be considered as influencing client health and illness. Students will provide care for the client with complex multiple needs in the clinical setting. Concepts of mental health and illness will be explored in the clinical and simulation setting. Students will have the opportunity to observe, experience, and design nursing care for the hospitalized and community client with mental health needs. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2455 - Semester 3 Clinical Practice Specialty (3 Credits) This course will focus on the client with specialized needs across the lifespan. Students will have the opportunity to explore the wonder of human gestation from conception to post-partum care of the newborn and mother. Pediatric nursing will be experienced in the clinical and simulation setting where theories of growth and development will be foundational in designing patient care. Family-centered care will be examined as the context of client development, response to illness and health promotion. External systems such as culture and religion will be considered as influencing client health and illness. Students will provide care for the client with complex multiple needs in the clinical setting. Concepts of mental health and illness will be explored in the clinical and simulation setting. Students will have the opportunity to observe, experience, and design nursing care for the hospitalized and community client with mental health needs. This course will also cover the characteristics of hazardous wastes and its safe handling, storage, and disposal. (Prerequisites: Successfully complete all Semester 2 Courses in order to advance to Semester 3 Courses)

NURS2520 - Semester 4 Leadership (1 Credit) This course introduces concepts related to leadership skills and management for nurses within the multidisciplinary health care team. Healthcare policy and regulatory processes impact on nursing practice are analyzed. Ethical principles and diversity are reviewed. Quality improvement concepts in health care are examined. Community service and education projects are implemented. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2530 - Semester 4 Med-Surg Acute (4 Credits) This course synthesizes knowledge from previous semesters to provide care for hospitalized patients with complex medical-surgical needs. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2540 - Semester 4 Med-Surg Acute (3 Credits) This course synthesizes knowledge from previous semesters to provide care for hospitalized patients with complex medical-surgical needs. (Prerequisites: NURS 2410, 2450, BIOL 270, COMM 130)

NURS2550 - Semester 4 Clinical Practice (4 Credits) This course offers opportunities to care for patients across the lifespan in a variety of medical-surgical settings. The student will have opportunity to apply theory to practice in complex

clinical situations. Critical thinking is supported by best practice and threaded throughout the course. The leadership role is explored in clinical and simulated laboratory experiences. The student nurse will be mentored by a practicing Registered Nurse in the patient care setting. The student will establish learning outcomes and identify areas of growth. Students will demonstrate professionalism and accountability for their actions. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

NURS2560 - Semester 4 Med Surg Advanced (3 Credits) This course synthesizes knowledge from previous semesters to provide care for hospitalized patients with complex medical-surgical needs. (Prerequisites: Successfully complete all Semester 3 Courses in order to advance to Semester 4 Courses)

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Course Descriptions

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OTEC - Office Technology

OTEC0100 - Computer Basics (2 Credits) The Computer Basics course is designed for students with little or no computer experience. In a small group setting, students will learn the basics of using a computer. Students will apply the information learned through a lecture to a hands-on, in-class experience lead by a knowledgeable instructor. (Prerequisites: None)

OTEC1001 - Computer Software for College (2 Credits) This course covers basic information about computer hardware and software and the use of computer software as a business productivity tool. Students will be given introductory training on a Windows operating system and the common business applications of word processing, spreadsheets, database, and presentation graphics. This course is designed to equip the student with knowledge of hardware and software applications. This course will cover the business application software that will be used in more advanced courses. (Prerequisites: Basic computer skills or Computer Basic class; mouse proficiency, keyboarding skill of 25 words per minute)

OTEC1725 - Transactional Law (3 Credits) This course will include an in-depth discussion and hands on experience in creation of documents for Minnesota real estate, probate, and corporate Law. Students will create documents and proofread for accuracy. Emphasis will be on Minnesota Law. (Prerequisites: Students must type at least 35 words per minute and have a working knowledge of Microsoft Word)

OTEC1730 - Civil Procedures (3 Credits) This course will include an in depth discussion and hands on experience in creation of documents for the Minnesota and federal court systems, civil litigation and appeal procedures. Students will create documents and proofread for accuracy. This course will emphasize Minnesota procedures. (Prerequisites: Students must type at least 45 words per minute and have a working knowledge of Microsoft Word)

OTEC1790 - Keyboarding for College (2 Credits) This course covers the development of basic keyboarding techniques using the touch-typing method of the computer. Emphasis will be on learning the touch-typing method of typing alphabetic, number and symbol keys. The keyboarding goal will be to attain a minimum rate of 35 words per minute with accuracy. (Prerequisites: None)

OTEC1815 - Keyboarding for Speed and Accuracy (2 Credits) This course follows the basic keyboarding techniques using the touch method. Emphasis is on building speed and accuracy on a computer keyboard. It will require extensive and systematic skill building to achieve and improve speed and accuracy. (Prerequisite: A minimum speed of 35 words per minute on a 3-minute timed writing, with 3 errors or less)

OTEC1820 - Business English (3 Credits) This course is designed to provide students with comprehensive, up-to-date instruction in the correct use of English grammar, sentence structure, punctuation, capitalization, abbreviations, and number usage in written business communications. Students will develop proficiency in proofreading, identifying common errors, and using reference materials to correct sentences, paragraphs, and business documents. (Prerequisite: None)

OTEC1822 - Microsoft Excel (4 Credits) This course prepares students to work with Microsoft Excel in a career setting or for personal use. It begins with the introduction of concepts such as creating, editing, and formatting worksheets in a uniform, attractive style. It includes inserting formulas, creating charts, and enhancing the display of worksheets of varying complexity. The course will move on to the advanced concepts and features of formatting, using functions, analyzing numerical data, and projecting outcomes to make informed decisions. Features of protecting workbooks, using macros, using pivot tables, and customizing the Excel environment are also included. Current communication needs will be met by including hyperlinks to external information, as well as importing, exporting, and sharing data. (Prerequisite: none)

OTEC1840 - Microsoft PowerPoint (3 Credits) This course is designed to build student skill at both a basic and advanced level in Microsoft PowerPoint. It begins with the introduction of concepts such as creating a basic presentation with pictures, shapes, and WordArt, adding media and animation. It continues with the basic skills students need to acquire to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as customizing templates and handouts using masters, developing presentations with content from outside sources, and organizing slides and creating photo albums. (Prerequisites: None)

OTEC1860 - Microsoft Word (4 Credits) This course is designed to build student skill at both a basic and advanced level in Microsoft Word. It begins with the introduction of concepts such as file management, entering text, editing, terminology, spelling, and printing. It continues with the basic skills students need to use the application proficiently. Once students are proficient at the basic level, the course moves on to the advanced concepts and features such as macros, merging, and tables. (Prerequisites: None)

OTEC2000 - Employment Search Skills (2 Credits) This course introduces students to a process for developing self-awareness - considering career opportunities, constraints, choices, and consequences - identifying career related goals - and planning of work, education, and related experiences to attain specific career goals. Students will also create job search documents and develop interviewing skills. The students will develop an understanding of and appreciation for the job search process. Students will use Internet and library resources.

OTEC2735 - Family and Criminal Law (3 Credits) This course will include an in depth discussion and hands on experience in creation of documents for the Minnesota family law and criminal procedures. Students will create documents using word processing and proofread for accuracy. Minnesota procedures will be emphasized. (Prerequisite: OTEC 1730)

OTEC2740 - Legal Editing and Proofreading (3 Credits) This course covers transcription of dictated material into a variety of usable legal documents using word processing equipment/software. Emphasis will be on forms and materials, editing, proofreading, and correcting errors. (Prerequisites: OTEC 2735)

OTEC2800 - Office Keyboarding (3 Credits) This course covers the continuing development of keyboarding speed and accuracy. Advanced document formatting, such as letters, tables with special features, templates, labels, mail merges, multi-page reports, columns, etc., will be included. Students will continue to develop proofreading skills as they format documents from straight copy, rough draft, handwritten copy, and arranged and unarranged sources. (Prerequisite: A minimum keyboarding speed of 40 words per minute on a 3-minute timing, with 3 errors or less or advisor approval.)

OTEC2810 - Computer Technology (3 Credits) This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions. (Prerequisite: None)

OTEC2815 - Employment Portfolio (3 Credits) This course is a capstone course for the Office Administration and Technology program. This course will focus on developing knowledge that will serve as a foundation for the student's employment search process by assisting him/her in the development of successful marketing strategies for employment. As a capstone course, students are given an online assessment of the use of software and keyboarding skills to ensure competence prior to graduation. Students will develop distinctive portfolios to assist in their career search. Limited to final semester Office Administration and Technology program students. (Prerequisites: OTEC1860, OTEC2820)

OTEC2820 - Business Communications (3 Credits) This course covers the principles of effective writing and requires students to plan, compose, and format a variety of business communications. Emphasis is on proofreading, editing, and revising communications not just to make them correct but also to make them better. Types of communications may include letters, memos, e-mail, announcements, instructions, form letters, and digital media. Specific letter or memo types may include request and response, claim and adjustment, persuasive, credit and collection, and goodwill communications. Students will learn about letter and envelope formats, international communication differences, and organizational approaches for writing correspondence. Students will learn about words to avoid, transitions, parallel structure, and the you attitude. (Prerequisite: OTEC 1820)

OTEC2830 - Microsoft Publisher (3 Credits) Students will integrate word processing, graphics, and manipulate text graphics to produce professional quality publications. The topics covered are most useful to the student who has prior word processing experience and who needs to understand page compositions and typography for the purpose of preparing documents with flair. The course introduces the concepts, terminology, techniques, and applications of desktop publishing. Design concepts are limited to those useful in business applications and are not intended to present a "graphics/commercial art" focus. The emphasis will be on developing proficiency, preparing applications-based projects, and mastery of the software. Microsoft Publisher 2013: Complete is intended for a first course on Publisher 2013. No experience with a computer is assumed, and no mathematics beyond the high school freshman level is required. (Prerequisites: None)

OTEC2850 - Integrated Information Systems (3 Credits) This is an intensive course that provides project-based learning with a business scenario setting utilizing critical thinking skills. The projects emphasize the integration of various computer applications to create professional documents. Students will incorporate time management, electronic

communication, Internet searches, and current technology practices to be successful in an office work setting. (Prerequisites: OTEC 1822, OTEC 1840, OTEC 1860, OTEC 2870)

OTEC2860 - Office Management (3 Credits) This course covers the managerial and organizational processes of Administrative Office Management; office environmental management, which include office layout, office environment, and office equipment and furniture; office employee management, which includes selecting, developing, supervising, and motivating office employees as well as performance appraisal, job analysis, job evaluation, salary administration, and work measurement and productivity; office systems analysis; and office functions management. (Prerequisites: OTEC 1860 Microsoft Word, OTEC 2820 Business Communications)

OTEC2865 - Special Problems (1 - 4 Credits) This course allows the student to pursue special projects or areas of interest. The topics and the number of credits must be agreed upon by instructor prior to registration.

OTEC2870 - Information Resource Management (3 Credits) This course covers rules and procedures for coding, indexing, filing, and retrieving documents in alphabetical, numeric, geographic, and subject systems. Applications include simulated correspondence filing and card filing using both manual and electronic methods. Students will learn how to use database management software to manage information. Records management topics emphasize records control and retention, final disposition of records, and records management issues and trends. (Prerequisite: None)

OTEC2915 - Internship (1 - 3 Credits) This course is designed to provide the student with a purposeful occupational experience in the Office Administration and Technology field. The internship is an individualized experience. A plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. This plan is based on the college's and the program's core competencies. (Prerequisites: OTEC 1822, OTEC 1860, OTEC 2820 or Internship Coordinator's approval.) Variable credits depending on emphasis selected: Administrative Office Specialist- Legal: 3 credits. Administrative Office Specialist-All other emphasis areas: 2 credits.

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Course Descriptions

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PHIL - Philosophy

PHIL100 - Ethics in Society (3 Credits) This course studies the foundations for moral beliefs and values and the part they play in practical ethical judgments. After providing a general introduction to moral concepts and theories, the course covers a wide range of social problems through an analysis of power, privilege, and justice. The class is organized by overarching themes of race, social class, gender, and global concerns and addresses issues involving criminal justice, economic inequality, gender differences, and sexuality. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 7, 9)

PHIL105 - World Religions (4 Credits) This course is a basic introduction to the major world religions including Hinduism, Buddhism, Judaism, Christianity and Islam. It also explores related issues in the Philosophy of Religion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 6, 8: Humanities and Fine Arts, Global Perspective)

PHIL115 - Global Philosophies (3 Credits) This course provides a practical introduction to the discipline of philosophy. In addition to exploring what philosophy has meant in Western society, this course will survey perspectives on philosophy in non-Western cultures -- including Indian, Chinese and indigenous traditions. It will explore how different philosophical schools have answered several "essential questions" regarding human nature, the purpose of life, and how society should be structured to maximize human flourishing. Special emphasis will be placed on philosophies which offer practical guidance for living, and students will be encouraged to develop and articulate their own philosophical perspective. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 6, 8)

PHIL150 - Medical Ethics (3 Credits) This course examines the moral problems confronting medical providers and surveys the broader field of bioethics. After providing a general introduction to ethical concepts and theories, it focuses on specific issues relating to the American health care system, including access to care, inequality, obesity, reproductive rights, end-of-life care, disability, organ transplantation, and alternative medicine. Emphasis is placed on practical

application of moral principles and critical analysis of case studies. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 2, 9)

PHIL205 - Special Topics in Philosophy: (1 - 3 Credits) All PHIL 205 courses will help students learn about other areas of philosophy which are important to the study of other disciplines and philosophy itself. Students will explore broader areas of philosophical concern such as metaphysics (free-will, truth, realism, universals, necessity/contingency, causation, mind, time, God, etc.); epistemology (skepticism, inferential justification, knowledge, internalism/externalism, a priori/a posteriori, closure, direct/indirect realism, memorial knowledge, etc.); meta-ethics (moral knowledge, oral realism/anti realism, ethical intuitionism, reductionisms such as utilitarianism, relativism, subjectivism, divine command theory, contractarianism, Aristotelianism/teleology, virtue ethics, etc.). Furthermore, students can also focus on political philosophy, philosophy of religion, and philosophy of science or specialize in some facet of the above topics. All PHIL 205 courses will emphasize the use of primary texts and the development of philosophical thought throughout history. These courses will focus on the most basic questions of human existence (this indeed is philosophy) such as truth, knowledge, free-will, moral rightness, justice, and so forth. We assume answers to these questions in every other study we partake in. For instance, science presupposes the legitimacy of inductive reasoning, the law of non-contradiction, the justification of using inference to the best explanation, the uniformity of nature, the reliability of perception, the nature and possibility of a posteriori knowledge and others. These courses will deal with the questions we presuppose answers to in discussing those things that matter to us. In the end, PHIL 205 courses will give philosophy instructors and students the opportunity to explore areas of philosophy which are of interest not only to the psychologist, historian, and novelist, but also to those who wish to pursue a career in philosophy or become competent in philosophical problems. As Socrates said, "the unexamined life is not worth living." These courses will help encourage others to avoid the unexamined life. (Prerequisite: Any 100 level PHIL course or instructor permission) (MNTC 6: Humanities and Fine Arts)

PHIL210 - Environmental Ethics (3 Credits) This class explores the place of human beings within the broader ecosystem, focusing on the environmental impact of human behavior and sustainable alternatives to consumerist lifestyles. In addition to surveying the scientific evidence for the ecological problems humans cause, it addresses the political, economic, cultural, philosophical and religious dimensions of the current environmental crisis. The class also includes discussion and application of solutions to these problems, encouraging students to become involved in environmental activism and consider changes in their own behavior. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 9, 10: Ethical and Civic Responsibility, People and the Environment)

PHIL220 - Cyber Ethics (4 Credits) This course introduces students to basic ethical theories and concepts and applies them to emerging issues in technology. It includes consideration of the ethical obligations of workers in technology industries along with controversies regarding social media, privacy, censorship, automation, and online discrimination. (Prerequisites: Must have one of the following: (MCA Reading score of 1047 or higher, or ACT Reading score of 21 or higher or Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher) OR (READ 0095) OR (completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher) AND (completion of either ENGL 0090 or EAP 0095 with a grade of C [2.0] or higher) (MNTC Goal Areas: 2 and 9).

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PHLE - Phlebotomy

PHLE1000 - Anatomy & Physiology (2 Credits) This course provides the student with a basic understanding of the structure and function of the human body. Instruction includes terminology, function, structure, diagnostic tests, and disorders of the anatomical systems. (Prerequisites: MDLT 1810)

PHLE1100 - Legal/Ethical Issues for Phlebotomists (1 Credit) This course familiarizes the student with various legal and ethical issues that affect their activities as a healthcare professional. The topics of instruction include, but are not limited to, confidentiality, patient bill of rights, right of privacy, and patient consent. (Prerequisites: MDLT 1810)

PHLE1200 - Multiskilling for Phlebotomists (3 Credits) This course cross trains the phlebotomy student in several different skill areas within the laboratory. Instruction includes EKGs, CLIA'88 waived procedures, and POCT (point-of-care-testing). (Prerequisites: MDLT 1810 or Program Director permission)

PHLE1300 - Internship (5 Credits) PHLE1300 constitutes the student's clinical rotation. It consists of 160 contact hours of supervised practice of phlebotomy at an affiliated hospital or clinic. Internship experiences are specifically planned and implemented through the coordinated efforts of the faculty and staff of South Central College and the internship site. (Prerequisites: All support and technical phlebotomy coursework must be completed or Program Director permission)

PHLE1400 - Intro to Phlebotomy (4 Credits) This course provides an orientation that familiarizes the student with a career in the field of Phlebotomy. The course will include a basic overview of the structure and function of the human body, various legal and ethical issues that affect a healthcare professional and specific phlebotomy topics. These topics include: program policies, certification, safety, infection control, quality control, specimen collection/handling/processing, good laboratory technique and maintaining the standards of a Phlebotomist based on industry criteria. (Concurrently with PHLE1450 & PHLE 1500 or Program Director permission)

PHLE1450 - Phlebotomy Skills (3 Credits) This course teaches students phlebotomy skills which will be further enhanced during the clinical internship. This course also cross trains the phlebotomy student in several different skill areas within the laboratory. Instruction includes EKGs (electrocardiograms), CLIA'88 (Clinical Laboratory Improvement Amendment) waived procedures, and POCT (point-of-care-testing). (Concurrently with PHLE 1400 & PHLE 1500 or Program Director permission)

PHLE1500 - Phlebotomy Internship (3 Credits) This course constitutes the student's clinical rotation. It consists of 100 contact hours of supervised practice of phlebotomy at an affiliated hospital or clinic. Internship experiences are specifically planned and implemented through the coordinated efforts of the faculty and staff of South Central College and the internship site. (Prerequisite: Completion of PHLE 1400 and PHLE 1450 with a grade of C or higher.)

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PHRM - Pharmacy Technician

PHRM1110 - Pharmacy Technician Orientation (1 Credit) In this course students will gain a historical perspective of the pharmacy profession along with an understanding of the role of the pharmacy technician. Emphasis is placed upon the duties and responsibilities of the pharmacy technician along with an introduction to the various pharmacy practice settings. Students will also be required to complete the required paperwork for the pharmacy technician program. This course is intended to satisfy goals 23 and 41 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisite: None)

PHRM1111 - Pharmacy Law and Ethics (1 Credit) This course will give students a general understanding of the laws and regulations that govern pharmacy practice. This course will also cover the ethical principles governing the pharmacy technician and the roles they play in a practice setting. This course is intended to satisfy goals 2, 3, 6, 7, 11, 14, 17 and 29 of the model curriculum for pharmacy technician training, developed by the American Society of Health System Pharmacists. (Prerequisite: None)

PHRM1112 - Retail Pharmacy (2 Credits) This course is designed to give students an in-depth understanding of the retail pharmacy. Emphasis is placed on the role and responsibilities of the pharmacy technician in the retail pharmacy environment. Students will be given opportunities to apply these skills as active participants in the mock retail pharmacy environment. This course is intended to satisfy goals 1, 2, 3, 5, 8, 9, 10, 24, 26 and 27 of the model curriculum for pharmacy technician training developed by the American Society of Health-System Pharmacists. (Prerequisites: PHRM 1110, 1111)

PHRM1113 - Pharmacy Math (4 Credits) In this course students will learn basic terminology, abbreviations and units necessary to perform pharmacy calculations. Pharmaceutical measuring systems and conversions will be addressed as well as a review of calculations pertinent to pharmacy practice. Students will learn to calculate the correct oral and parenteral dosages of drugs and other ingredients using information from prescriptions, medication orders, and drug labels. During the laboratory portion of the course, students will be given an opportunity to demonstrate a practical application of concepts. This course is intended to satisfy goals 2, 3, 15, 25 and 27 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisites: CHEM 108, PHRM 1110)

PHRM2114 - Pharmacology (4 Credits) Students will gain knowledge of pharmacology, including a systematic approach to the classifications of medications, their indications and contraindications, mechanisms of action, side effects, drug interactions, and methods of administration. This course is intended to satisfy goals 1, 24, 25, 26, and 34 of the model

curriculum for pharmacy technical training, developed by the American Society of Health-System Pharmacist.
(Prerequisites: HC 1000, 1914, PHRM 1110)

PHRM2115 - Pharmacy Non-Sterile Compounding (2 Credits) This course will enable students to learn general preparation of non-sterile pharmaceutical dosage forms. Practical experience in the manipulative and record keeping functions associated with compounding and the dispensing of compounded prescriptions will be provided. This course is intended to satisfy goals 3, 11, 12, and 35 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisites: PHRM 1113)

PHRM2116 - Institutional Pharmacy (4 Credits) In this course, students will learn general practices associated with institutional pharmacy services. The student will also acquire knowledge of aseptic technique through both demonstrations and hands on experiences in the preparation of sterile compounds and IV admixtures. This course covers the preparation, calculations, and procedures for intravenous drug admixtures, TPN compounding, and critical care admixtures. Students will also have the opportunity to participate in various pharmacy technician duties using the Pyxis Medstation. This course is intended to satisfy goals 2, 3, 5, 10, 12, 26, 27, 30, and 35 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisite: PHRM 1113)

PHRM2117 - Community Pharmacy Internship (4 Credits) In this course students will take part in a pharmacy practice experience in the community setting to refine skills necessary for employment as a pharmacy technician. Students will participate in their internship experience along with on-line and in-class participation. This course is intended to satisfy goals 1, 2, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 31, 32, 33, and 35 of the model curriculum for pharmacy technician training developed by the American Society of Health-System Pharmacists. (Prerequisites: PHRM 1112, 1113, 2114)

PHRM2118 - Pharmacy Technician Seminar (1 Credit) This course is designed for students to discuss pertinent topics related to the internship experiences as well as their futures as pharmacy technicians. This course is also designed to aid the student in the review of materials prior to the PTCE exam. This course is intended to satisfy goals 1-35 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisite: None)

PHRM2119 - Institutional Pharmacy Internship (4 Credits) This course will offer an intense pharmacy practice experience in an institutional setting with the purpose of refining skills introduced in previous coursework that are necessary to pursue a career as a pharmacy technician. Students will participate in their internship experience along with on-line and in-class participation. This course is intended to satisfy goals 1, 3, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 24, 25, 26, 27, 29, 30, 31, 32, 33, and 35 of the model curriculum for pharmacy technician training, developed by the American Society of Health-System Pharmacists. (Prerequisites: PHRM 2116)

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Course Descriptions

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PHYS - Physics

PHYS101 - Introductory Physics (3 Credits) A one semester course covering the basic principles of physics at a conceptual level and with a minimal amount of math. Topics generally included mechanics, simple machines, atomic structure, heat, light, and sound. Lecture and laboratory. (Prerequisites: Next-Generation Accuplacer Arithmetic score of 250 to 300 AND Next-Generation Accuplacer QAS score of 200 to 236 or Classic Accuplacer Arithmetic score of 56 or higher AND Elementary Algebra score of 0 to 75 or completion of MATH 0075 with a grade of C (2.0) or higher.) (MNTC 3: Natural Sciences)

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Course Descriptions

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PLSC - Agri-Business

PLSC1100 - Soils I (3 Credits) This course has a lecture and a lab component. Areas of study will include the physical properties, chemical properties, biological properties, soil formation, classification, essential nutrient and soil survey. There will be emphasis on soil and water conservation and practices that can be used to reduce soil erosion. Evaluations of soil samples will be conducted in the agribusiness lab and in the field. (Prerequisites: None)

PLSC1105 - Forages and Pasture Management (2 Credits) This course includes the study of the management and production of small grains and forages. Subject areas will include varietal selection, planting, calculating yields, production costs, growth management, harvesting techniques and marketing techniques. The forage management will focus on alfalfa production, emphasis on establishment, winter survival, fertilization, cutting management and variety selection. (Prerequisites: None)

PLSC1200 - Soils II (3 Credits) This course covers both the technical and practical information that should be of assistance to a student who would farm or go into the fertilizer business. The course deals with the basic soil-plant relationships and the effects of fertility. Detailed information on fertilizer materials and the information of test results will also be covered. Students will put into practice many of the cropping practices that are required by someone pursuing a career in the fertilizer and/or chemical field. Students will determine the proper rates and application methods. (Prerequisites: PLSC 1100)

PLSC1205 - Precision Agriculture (3 Credits) The course objectives include basic understanding of precision agriculture, high-tech equipment, and strategies. Students will gain an understanding of the hardware, software and management strategies of precision agriculture. Areas of study will include GIS, GPS, remote sensing, differential correction, yield monitoring, and grid mapping. Farmworks software will be incorporated into the course.

PLSC1300 - Agronomy I (2 Credits) This course covers agronomy principles for midwest crops. The course covers basic components of plant growth, seed quality, plant parts, plant growth and development, plant classification, maturity systems and seeding rates. Corn and soybean production will be major crops of consideration. (Prerequisites: None)

PLSC1400 - Agronomy II (3 Credits) This course considers the characteristics and identification of noxious and common weeds and weed seeds, methods of control, evaluation of herbicide performance and tolerance to herbicides. Topics on herbicide characteristics, formulations and application methods will be taken into account in determining the most economic method of weed control. (Prerequisite: PLSC 1300)

PLSC2000 - Commercial Pesticide License Training (1 Credit) This course is designed to complement other courses offered in weed, insect and disease control and pesticide application so as to help facilitate the student with skills necessary to pass the state examinations for applicator licensing and the federal examination for private applicator licensing. (Prerequisite: None)

PLSC2100 - Agronomy Lab (2 Credits) This course covers the determination of grain quality, proper storage and handling. Laboratory exercises will be run on grain samples and student's home grains. Grain drying systems will be explained with advantages and disadvantages of each system identified. This course covers commercial grain grading practices including seed identification and grain grading. The course will also cover state grain marketing procedures and an introduction to USDA standards for corn, soybeans, wheat, oats, barley and sunflowers. (Prerequisite: None)

PLSC2700 - Advanced Agronomy (3 Credits) This course includes units of instruction on management practices in the production of corn & soybeans, the economic and environmental aspects of soil damage systems, nutrient management recommendations for nitrogen and phosphorus, and current topics in the agronomy field. Classes will include speakers from the agricultural industry to address the current topics. The lab portion of the course will include grading corn and soybean samples as well on labs as plant genetics. (Prerequisites: PLSC 1300 and PLSC 1400)

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POL - Political Science

POL110 - American Government (3 Credits) American Government introduces students to the fundamentals of American National Government. The course includes an examination of basic American political principles and practices, the Constitution, major institutions, and civil liberties. The objective of this course is to acquaint students with the complexities of the American political system. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical and Civic Responsibility)

PSYC - Psychology

PSYC100 - Introduction to Psychology (4 Credits) This course will introduce the broad spectrum of theories and applications that make up the field of psychology. Psychology is the scientific study of behavior and mental processes, and how they are affected by physical and mental states, and external environments and social forces. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5: History/Social & Behavioral Sciences)

PSYC110 - Lifespan Psychology (3 Credits) This is an introductory course examining human development across the lifespan, with emphasis on normal physical, cognitive, and social development. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC140 - Psychology of Positive Adjustment (4 Credits) The Psychology of Positive Adjustment introduces students to the scientific literature on positive adjustment to modern life. We will examine the questions: What is well-being and happiness? Who achieves it? Why does it elude some people? Which practices foster well-being and happiness? We will draw from the research in social psychology, neuroscience, personality psychology, cognitive psychology and sociocultural psychology. The course will incorporate the concepts of ethical living, values clarification, and civic responsibility as part of the mature development of psychological well-being. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Sciences, Ethical & Civic Responsibility)

PSYC210 - Social Psychology (4 Credits) Social Psychology introduces the broad spectrum of theories and applications that make up the field of social psychology. Social Psychology is the scientific study of human interactions and includes issues of aggression, attraction, self, benevolence, attitude development and change, prejudice, etc. (Prerequisites: PSYC 100 or any other college-level psychology course) (MNTC 5: History/Social & Behavioral Sciences and MNTC 9 - Ethical/Civic Responsibility)

PSYC230 - Abnormal Psychology (4 Credits) In this course, students will increase their awareness and understanding of mental illness and psychological disorders. Students will become familiar with the history of the field, clinical descriptions, classification, etiology, course of onset, and typical treatment regimens specific to various disorders and mental illness. Abnormal behavior will be explored from various theoretical perspectives including psychological, biological, and socio-cultural approaches. (Prerequisites: PSYC 100 or PSYC 110 or PSYC 140 or instructor approval.) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC250 - Industrial Organizational Psychology (4 Credits) Industrial-organizational (I/O) psychology is the scientific study of the workplace. Students will be introduced to a variety of issues of relevance to business and industry, including selection and placement of employees, the importance of training and development, organizational development and evaluation, employee motivation and productivity, and the importance of fostering work-life balance. Diversity among organizations and cultures in how they approach these issues will be emphasized. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5, 7: History/Social & Behavioral Sciences, Human Diversity)

PSYC280 - Special Topics in Psychology: (4 Credits) This course is designed to provide students with a deeper understanding of a special topic within the field of psychology. Key theoretical and historical underpinnings will be presented to prepare a foundation of understanding. Attention will be focused on how the topic has or may add to the knowledge base of psychology and, if applicable, other academic disciplines. Students will explore the actual or potential applicability of the topic to self, others, and society at large. The course will have a research component. Course may address one of Goal Areas 7-10 depending on the topic. (Prerequisites: PSYC 100 or consent of instructor) (MNTC 5: History/Social & Behavioral Sciences)

QFPR - Culinary Arts

QFPR1842 - Stocks, Sauces and Soups (3 Credits) This course covers the preparation of classical and convenience stocks. From these stocks, different soups and sauces will be prepared using various preparation techniques. (Prerequisites: None)

QFPR1846 - Introduction to Breakfast and Pantry (3 Credits) This course teaches the cooking of meats, eggs, cereals, potatoes, batter products and the preparation of fresh fruits for breakfast and the proper techniques and procedures for the preparation of salads, salad dressings and sandwiches. This course will include commercial production techniques used in the preparation of breakfast and pantry foods. (Prerequisites: None)

QFPR1850 - Basic Baking (4 Credits) This course covers baking terminology, function of ingredients, and the preparation of finished products such as quick breads, pies, cakes, cookies, dessert sauces, custards, puddings and classical pastries. (Prerequisites: None)

QFPR1880 - Quality Assurance (2 Credits) This course develops an understanding of the basic principles of sanitation and safety in order to maintain a safe and healthy environment for the consumer in the food service industry. An understanding of the laws and regulations related to sanitation in food service operation is also covered. (Prerequisites: None)

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READ - Reading

READ0080 - Reading I (4 Credits) This college reading course offers a step-by-step approach to building the reading skills needed to successfully comprehend college-level textbook readings. Students practice reading comprehension skills and strategies, and then apply them to college-level textbook readings. Students also work on vocabulary acquisition through the study of academic words typically found in college-level reading materials. Minnesota K-12 Academic Standards in Reading are indicated in parentheses after each competency on the Common Course Outline. (Prerequisites: Next-Generation Accuplacer Reading score of 224 to 236 or Classic Accuplacer Reading score of 36 to 55 or MCA Reading score between 750 - 1041)

READ0085 - Reading and Critical Thinking I and II Modular (6 Credits) In this beginning and intermediate combination reading course, students first practice basic reading strategies using a computer-based reading program. They practice only the reading skills in which they are deficient. Deficiencies are identified by a diagnostic reading test taking at the beginning of the course. After practicing basic reading strategies in a computer-based reading program, students then expand and apply these reading strategies in Reading and Critical Thinking II, the application section of the course. The application section takes place in an actual classroom, and utilizes reading textbooks and supplemental literature in the application of reading strategies and concepts learned. Students must score 50-62 on the Reading Comprehension portion of the Accuplacer Test in order to enroll in this course. A grade of "C" or better is required for successful completion of this course. This course does not fulfill General Education requirements. This course is equivalent to READ 0090. (Prerequisites: Must have a score of 50-62 on the Reading portion of the Accuplacer test)

READ0090 - Reading and Critical Thinking II (4 Credits) This intermediate-to-advanced reading course focuses on applying the reading strategies, concepts, and skills learned in Reading I. This application course utilizes college-level texts of all genres in the application of reading comprehension strategies, concepts, and skills. A grade of "C" or better is required for successful completion of this course. This course does not fulfill General Education requirements. (Prerequisites: Next-Generation Accuplacer Reading score of 237 to 249 or Classic Accuplacer Reading score of 56 to 77 or MCA Reading score of 1042 to 1046 or completion of READ 0080 with a grade of C (2.0) or higher).

READ0095 - Integrated Literacy (8 Credits) Integrated Literacy provides intensive instruction in critical thinking, reading, and writing and preparation for English 100 (Composition) and other 100-level courses. Coursework will emphasize

independent reading of complex academic texts, critical response to ideas and information in academic texts, and writing essays that integrate ideas and information from academic texts. Note: This course fulfills the requirements of READ 0080, READ 0090, ENGL 0080, and ENGL 0090. (Prerequisite: Next Generation Accuplacer Reading score of 230 or higher, OR Classic Accuplacer Reading score of 50 or higher, OR MCA Reading score of 900 or above.)

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Course Descriptions

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RNEW - Energy Technical Specialist

RNEW1100 - Process Dynamics (MN West) (3 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1101 - Ethanol Process Fundamentals (MN West) (2 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1102 - Biodiesel Process Fundamentals (MN West) (2 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1115 - Mechanical Fundamentals (MN West) (3 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1175 - Industrial Water Treatment (MN West) (2 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1195 - Feedstock, Technology & Regulations (MN West) (2 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW1300 - Introduction to Traditional/Renewable Energy (MN West) (3 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

RNEW2120 - Ethanol Separation Technology (MN West) (2 Credits) This course is offered through Minnesota West Community & Technical College. Please refer to the course description located at the MN West website: www.mnwest.edu

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Course Descriptions

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SGAG - Agri-Business

SGAG1000 - Ag Orientation (1 Credit) Students will become oriented to the careers in agriculture related to the specific field they plan to enter. Completion of interviews of industry professionals will be required and students will need to write a career plan relating to the path they have been oriented. (Prerequisite: None)

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Course Descriptions

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SHA - Energy Technical Specialist

SHA1600 - Introduction to Industrial Safety & Health (Hibbing CC) (2 Credits) This course is offered through Hibbing Community College. Please refer to the course description located at the HCC website: www.hibbing.edu

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Course Descriptions

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SOC - Sociology

SOC101 - Introduction to Sociology (3 Credits) The world is a far more diverse place than you might think! This course is a broad survey of sociology and its practical uses for all of us. In this course, students are introduced to a variety of topics, emphasizing breadth rather than depth. After learning about the basic theories and methods of sociology, students will cover topics such as race, gender, education, religion, social class, work, family, the environment, government and politics, organizations and bureaucracy, and other topics. Students will learn about the nature of all of these areas and their effects on individuals and their broader implications for society. In the end, students will leave with a far greater understanding of how society is organized and what that means for where we have been, where we are, and where we are going as a people. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC Goal Areas 5 & 8: History and Social Sciences, Global Perspective)

SOC201 - Marriage and Family (3 Credits) The Sociology of Marriage and Family will help students understand this dynamic institution as an important variable in our contemporary society. Students will be exposed to the various sociological perspectives, methods of study, and core concepts related to the institution of Marriage and Family. Simultaneously, students will also learn how the diverse institution of Marriage and Family continues to affect and inform the society at the local, national and global level. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 7: History/Social & Behavioral Science, Human Diversity)

SOC205 - Special Topics in Sociology: (3 Credits) Special Topics in Sociology is a course that is used to cover a specific sociological area that is not otherwise covered by the other sociology courses offered. This course will explore the basic principles, theories, methodologies, and contemporary research and issues of the topic indicated in the course title on the registration page. Students should expect this course to be a survey of topics in the given sociological sub-discipline. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

SOC259 - Drugs and Society (3 Credits) This course focuses on drug use and abuse as a social rather than as a medical or psychopathological phenomenon. Specifically, the course deals with the history of drug use and regulatory attempts in the United States and around the world; the relationship between drug use and race/social class; pharmacology and use patterns related to specific drugs; perspectives on the causes of drug abuse; AIDS prevention and harm reduction interventions; drug-using subcultures; drug policy, drug dealing and street gangs, drug legislation, and drug enforcement; and the promotion and condemnation of drug activities in the mass media. Each week, students can expect to discuss one of these issues and also view an episode of a program from the popular media used as a basis for discussion. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 5, 9: History/Social & Behavioral Science, Ethical & Civic Responsibility)

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Course Descriptions

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SOLA - Somali

SOLA100 - Somali Language I (4 Credits) This course provides an introduction to Somali language and culture. Communication skills include: speaking, listening, reading & writing. Sensitivity to cultural differences is emphasized. Simple texts dealing with cultural topics are used to develop skill in speaking. The four skills - speaking, comprehending, reading, and writing - are developed simultaneously. This course is designed for students with very little or no previous experience with the Somali language. (Prerequisite: None) (MnTC Goal 8 Global Perspectives)

SOLA102 - Somali Language II (4 Credits) This course is a continuation of SOLA 100 with increased emphasis of Somali culture and language skills including speaking, listening, reading articles and elementary creative writing, as well as awareness of sensitivity to cultural. This course is interactive and taught in Somali. This course use text books and modern media including audio, video recordings, information printed on websites and news in Somali from across world. (Prerequisite: SOLA 100 or instructor permission) (MNTC 8: Global Perspective)

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Course Descriptions

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SOWK - Social Work

SOWK100 - Introduction to Social Work (3 Credits) This course provides students with an introduction to the profession of social work using a generalist model to practice in a diverse society. Students will learn about the history of the profession, values and ethics, roles and tasks, and theories required for social work practice along with various fields of practice. Students will experience group work learning to develop critical thinking skills and professional communication. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher, or READ 0095 or ENGL 100 with a grade of C (2.0) or higher OR completion of either READ 0090 or EAP 0090 with a grade of C (2.0) or higher AND completion of either ENGL 0090 or EAP 0095 with a grade of C (2.0) or higher.) (MnTC Goal Areas: None)

SOWK115 - Social Welfare Services (4 Credits) This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. Students will complete a research paper in APA format on a selected social issue and services to address this issue. (Prerequisite: ENGL 100) (MnTC Goal Areas: 5, 7)

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Course Descriptions

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SPAN - Spanish

SPAN105 - Elementary Spanish I (4 Credits) Students will be introduced to Spanish as a foreign language. The primary goal of the course is to acquire communicative competence in Spanish in regards to listening, speaking, reading, and writing. Language learning is a gradual process, in which one skill leads to the next, building the basis for more advanced skills. (Prerequisites: Must have a Next-Generation Accuplacer Reading score of 250 or higher, or Classic Accuplacer Reading score of 78 or higher, or completion of either READ 0090 or EAP 0090 or READ 0095 with a grade of C (2.0) or higher, or ACT Reading score of 21 or higher or MCA Reading score of 1047 or higher.) (MNTC 8: Global Perspective)

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Course Descriptions

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SURG - Surgical Technology

SURG1100 - Introduction to Surgical Technology (2 Credits) This course introduces the student to the field of Surgical Technology. Emphasis on history, roles, education of the Surgical Technologist, work environment, career opportunities, attributes for success, legal and ethical concerns, hospital administration and organization, and professional behaviors. Students will be introduced to the importance of certification and joining the national organization. (Prerequisite: HC 1000 - Medical Terminology, BIOL 220 - Anatomy, CHEM 109 - Introduction to Chemistry OR CHEM 110 - Chemistry for Health Sciences.)

SURG1220 - Surgical Lab (4 Credits) This course focuses on applied principles of surgical asepsis in the operating room. It provides an introduction to the physical organization of the surgical suite. Students learn to prepare and maintain the sterile field including identification, care, and handling of instruments, suture, preparation and use of supplies and equipment. Emphasis is on basic skills of the surgical technologist in preparation for and during the operative procedure. (Prerequisite: SURG 1100 Corequisite: SURG 1240)

SURG1240 - Surgical Techniques I (6 Credits) This is the first course that will focus on surgical techniques. This course emphasizes procedures related to general, obstetrics, gynecology, genitourinary, ears, nose, and throat, orthopedics, and ophthalmic surgery. Topics related to anatomy and physiology, microbiology, pathophysiology, wounds, and phases of healing. (Prerequisites: SURG 1100) (Corequisite: SURG 1220)

SURG1330 - Pharmacology for the Surgical Technologist (2 Credits) This course introduces pharmacological fundamentals that correlate with the surgical settings. Emphasis is placed on the role and responsibility of the surgical technologist related to medication handling. Topics to be covered will include surgical team roles, classifications, packaging, measurement, calculations, and delivery of medications. Anesthesia techniques including regional, general, and local administration. (Prerequisites: SURG 1100, 1220 and SURG 1240) (Corequisites: SURG 1340, SURG 1450).

SURG1340 - Surgical Techniques II (6 Credits) This is the second course that will focus on surgical techniques. This course emphasizes procedures related to plastic and reconstructive, oral maxillofacial, vascular, thoracic, cardiac, and neurological surgery. Topics related to anatomy and physiology, microbiology, pathophysiology, wounds, and phases of healing. (Prerequisites: SURG 1100, SURG, 1220 and SURG 1240) (Corequisites: SURG 1330, SURG 1450.)

SURG1450 - Surgical Clinical (5 Credits) Students will be scrubbing in a hospital operating room. This clinical will prepare students to perform in the role of first scrub. Students will assist in a variety of surgeries and related duties, and will apply knowledge of surgical techniques, procedures, equipment, instruments and supplies along with increasingly developing their skills to more complex procedures. (Prerequisites: SURG 1100, SURG 1220, SURG 1240) (Corequisites: SURG 1330, SURG 1340).

SURG1460 - Career & Exam Prep (1 Credit) This course covers topics to prepare students for the National Certification Exam and careers for surgical tech graduates. This class focuses on resume writing, simulated job interview, and review for the National Certification Exam. Students are required to complete the Program Assessment Exam conducted by the Association of Surgical Technologists. (Prerequisites: SURG 1100, SURG 1220, SURG 1240, SURG 1330, SURG 1340) (Corequisite: SURG 1470).

SURG1470 - Surgical Internship (5 Credits) Students will continue scrubbing in a hospital operating room. This internship will allow students to perform in the role of first scrub. Students will assist in a variety of surgeries and related duties, and will apply knowledge of surgical techniques, procedures, equipment, instruments and supplies along with increasingly developing their skills to more complex procedures. (Prerequisites: SURG 1100, SURG 1220, SURG 1240, SURG 1330, SURG 1340, SURG 1450) (Corequisite: SURG 1460).

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Course Descriptions

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SWPR - Agri-Business

SWPR1000 - Introduction to U. S. Pork Production (2 Credits) This course will provide an overview and introduction to the current U.S. Pork Industry. The course will cover industry trends and statistics, production systems, ethical production principles, Good Production Practices (GPP), and support systems. The course will also focus on health concerns, alternative production systems, production records and financial analysis. Additionally, a discussion on meat quality and consumer issues related to food safety and animal welfare will be addressed. Current industry issues related to the Show and Seed Stock businesses will be covered as well. (Prerequisites None)

SWPR1050 - Swine Artificial Insemination (1 Credit) This course is designed to teach the fundamental principles of livestock genetics in a practical manner. This course covers the study of the equipment necessary for artificial insemination in swine. Principles involved in heat detection, boar training, semen collection, semen evaluation, commercial semen, insemination, recordkeeping, and clean up procedures will all be addressed in this course. (Prerequisite: None)

SWPR1200 - Swine Breeding Stock Management (3 Credits) This course will provide a comprehensive study of the swine breeding herd. It will focus on the technical aspects of the breeding, gestation, and farrowing departments in a swine operation. Topics include the conditioning, care and management of gilts, sows and boars, breeding schedules, breeding methods, stock replacement, herd integration, replacement strategies, gestation management, Lactation management, reproductive health considerations, and care of piglets prior to weaning. (Prerequisite: None)

SWPR1300 - Nursery Finish Management (3 Credits) This course covers the requirements of the growing and finishing phases of swine to maximize production and efficiency. An overview of the technical and theoretical aspects of nursery, grower and finishing stages will be covered in this course. Production efficiency will be emphasized, as well as the humane treatment of animals. The discussion of social stress, nutritional stress and housing requirements will be included as well. The course will also cover scheduling of facilities, animal marketing, environmental considerations, animal observations and proper animal husbandry skills. (Prerequisites: None)

SWPR1500 - Swine Diseases (2 Credits) This course is a review of all common swine diseases in relation to their economic significance, symptoms, transmission, prevention, and treatment. This course will consist primarily of disease prevention and the means required to promote productive livestock production. Some time will be spent on the analyzing of specific diseases, describing symptoms and treatment. Artificial immunization and sanitation and how they can be used for specific diseases will be covered. (Prerequisites: None)

SWPR2000 - Swine Records and Analysis (3 Credits) This course covers recordkeeping systems for wide range of swine enterprises with an emphasis on interpretation, terms, and accuracy factors. Swine record use and analysis to maintain efficient productivity in all aspects of the swine enterprise is stressed. Computerized record systems are compared and students have an opportunity to utilize PigChamp or Pigcare record information, as well as other computerized records in swine production systems. Students will explain industry benchmarks and factors that impact obtaining business production goals. (Prerequisites: None)

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VITI - Viticulture

VITI1111 - Introduction to Viticulture and Vineyard (3 Credits) This course is designed to introduce students to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. Field practicum sessions consisting of 32 hours of hands-on experience will be scheduled in area vineyards. (Prerequisites: None)

VITI1112 - Botanical Viticulture (4 Credits) This course is designed to provide students with an overview of the plant kingdom and to examine grapevine form and function from a botanical perspective. Topics to be covered include the specific characteristics of plants that distinguish them from other forms of life, divisions within the plant kingdom with representative members of each, and plant classification. Plant cells, tissues, life cycles, structures and functions, especially as applied to grapevines will also be discussed, along with various aspects of plant and grapevine physiology, such as photosynthesis, respiration, nutrition, cold acclimation and hardiness, and dormancy. (Prerequisite: None)

VITI1113 - Winter Viticulture Technology (2 Credits) This course is designed to provide students initiated in the field of viticulture practical experience in winter vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture. (Prerequisites: VITI 1111-- or instructor permission)

VITI1114 - Spring Viticulture Technology (2 Credits) This course is designed to provide students initiated in the field of viticulture practical experience in spring vineyard operations. Students are required to partner with an approved vineyard to participate in the required field experience portion of the course which will serve as work experience for those seeking employment in commercial viticulture. (Prerequisites: VITI 1111 or instructor permission).

VITI1115 - Summer/Fall Viticulture Technology (2 Credits) Coursework will focus on fundamental viticulture issues related to the grape maturation process. Students will be introduced to the knowledge and practical skills required to

control and monitor grape berry growth and development as it relates to successful commercial production of both table and wine grapes adapted to the continental climate of the Mid-Western United States. Students are required to partner with an approved vineyard to participate in a field practicum portion of the course, which will provide hands-on work experience for those seeking employment in the field of commercial viticulture. (Prerequisite: VITI 1111 or instructor permission).

VITI1190 - Viticulture Safety (1 Credit) This course is an introduction to the hazards and safety issues in grape-growing. This course will include an overview of general agricultural safety and health, ergonomics, personal protective equipment, Occupational Safety and Health Administration (OSHA) rules and regulations, and other issues unique to viticulture. (Prerequisites: None)

VITI1211 - Integrated Pest Management (2 Credits) Effective grape production depends on the grower developing a system of grape management that is appropriate for each vineyard. Decisions need to be made for how to manage all of the normal cultural practices such as planting, fertility, harvesting, and pruning as well as managing the insect, disease, and weed problems that occur either regularly or sporadically. The information in this course will address management issues related to common, expected pest problems as well as the occasional appearance of minor pest problems. (Prerequisites: None)

VITI1213 - Regional Vineyard Management (2 Credits) This course is a general survey of vineyard management in the general wine growing regions in the Continental United States. The course covers management of the mature vineyard from region to region and builds on the topics covered prerequisite courses. (Prerequisites: VITI 1111 and one of the following VITI 1113, VITI 1114, VITI 1115)

VITI1293 - Soils for Viticulture (3 Credits) The course will explore soil properties and behavior and their influence on vine growth and wine grape characteristics. The course focuses not only on growth and production, but on the long-term effects of viticulture on soil quality and the wider environment. Upon completion of the course students will be able to select sites for a new vineyard, and help manage soils in existing vineyards. (Prerequisites: None)

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Course Descriptions

Academic Catalog and Handbook 2024-2025

WELD - Welding

WELD1005 - Blueprint Reading (1 Credit) This course provides an understanding of blueprints used within welding technology settings. Skills for reading, understanding, and interpreting welding symbols will be developed. (Prerequisites: None)

WELD1007 - Blueprint Reading for Welding (2 Credits) This course will expand on basic blueprint reading by utilizing skills and knowledge about symbols, charts, and measurements to work more closely with blueprints specific to Welding. (Prerequisite: None)

WELD1010 - OSHA 10 Hour and Welding Safety (1 Credit) This course is intended to provide entry level general industry workers information about their rights, employer responsibilities, and how to file a complaint as well as how to identify, abate, avoid, and prevent job related hazards on a job site. The training covers a variety of general industry safety and health hazards which a worker may encounter. An emphasis is placed on safety issues that exist in the welding environment. (Prerequisite: None)

WELD1011 - Welding Safety (1 Credit) Topics in this course include the basics of welding safety including proper equipment use and maintenance, machine guarding, bloodborne pathogens, safety and health programs, and overall welding safety. (Prerequisite: None)

WELD1020 - Introduction to Stick Welding (1 Credit) This course will cover shielded metal arc welding on carbon steel in various positions. (Prerequisite: None)

WELD1025 - Introduction to Shielded Metal Arc Welding (SMAW) (1 Credit) This course will provide an introduction to Shielded Metal Arc Welding (SMAW) on carbon steel in various positions along with an introduction to welding safety, welding, and electrode compatibility. Components of SMAW will be introduced, including selection of materials and steps necessary to complete tasks. Basic information about duty cycle, cable sizing, arc blow, and electrodes will also be presented. (Prerequisite: None)

WELD1026 - Shield Metal ARC Welding II (1 Credit) This course will expand on information introduced in SMAW I and will provide more practice time with electrodes: types, selection, discussion of power sources. Types of SMAW will be used in various ways, including selection of materials and steps necessary to complete tasks. Duty cycle, cable sizing, arc blow

are expanded upon and advantages, limitations, vertical-up and vertical down are explored. Additionally, this course will prepare for AWS D 1.1 Certification. (Prerequisites: WELD 1025)

WELD1030 - Introduction to MIG Welding (1 Credit) This course will cover gas metal arc welding process using short circuit transfer on carbon steel in various positions. (Prerequisite: None)

WELD1035 - Introduction to Gas Metal Arc Welding (GMAW) (2 Credits) The course will cover gas metal arc welding process using short circuit and spray methods on carbon steel. (Prerequisites: None)

WELD1036 - Gas Metal Arc Welding II (1 Credit) This course will reinforce concepts introduced in GMAW I, including circuits, spray arcs, and effects of shielding gasses. More practice time will be dedicated to mastery of gas metal arc welding. Additionally, this course will prepare for American Welding Society D 1.1 certification. (Prerequisites: WELD 1035)

WELD1045 - Introduction to Gas Tungsten Arc Welding (3 Credits) This course is designed to instruct welders in welding safety and the Gas Tungsten Arc Welding process (GTAW-TIG). The student will learn fundamentals of GTAW (TIG) for steel, stainless steel and aluminum. Welding procedures are taught on aluminum, carbon and stainless steels. The training covers edge, corner, lap, and fillet welds in all positions. Welding is limited to regular thin flat material, which does not include thick plate, pipe or other irregular shapes. (Prerequisites: None)

WELD1055 - Cutting and Brazing (3 Credits) An introduction to oxy-fuel welding and cutting, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. The course will demonstrate oxy-fuel welding and cutting safety procedures; identify and classify fuels and filler metals; perform entry-level oxy-fuel welding and cutting operations and select proper equipment and materials. A study of all position welding on ferrous and nonferrous metals using oxy-fuel welding process, including welding and cutting, brazing, and soldering operations. (Prerequisite: None)

WELD1065 - Metallurgy (1 Credit) Students will learn how metal discoveries and uses have impacted human history. The course will also include an introduction to the internal structure of metals, how alloys are made, and how metals are affected in the welding process. (Prerequisite: None)

WELD1075 - Advanced Welding Lab (4 Credits) Advanced welding lab is a course designed to allow students to utilize all of their skills with capstone project based assignments that prepares students to get their American Welding Society credentials. Students can also focus on a particular skills of choice. (Corequisite: WELD 1011)

WELD1085 - Welding Capstone (2 Credits) This course is an opportunity to put welding skills to work. The Capstone will build on what was learned in the certificate program. Students keep current with welding skill through designing a project and welding the final project. The Welding Capstone may also include an internship. A learning contract will be developed between the student, college, and worksite to identify the types of specific skills covered through this experiential learning opportunity. Students will gain industry workplace experience while practicing the knowledge and skills learned in class. (Prerequisite: Instructor permission required)

WELD1101 - Welding Fundamentals (2 Credits) This course includes introduction and skill development in Oxy/Fuel welding, cutting, brazing, and torch cutting, Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), metal preparation and safe operation of machines involved in the above applications. (Prerequisites: None)

WELD1108 - Advanced Blueprint Reading (2 Credits) Students will be expanding what was learned in the Introduction to Welding certificate. This class will also add new blueprints that have to do with Fabrication. Blueprints used in this class will also be used to build weldments used in the advanced welding classes. (Prerequisite: WELD 1007 Blueprint Reading or equivalent from another technical college or instructor approval.)

WELD1126 - Advanced Shielded Metal Arc Welding (1 Credit) Advanced shielded metal arc welding (Adv. SMAW) is adding upon the basic taught in the introduction certificate. There will be a more of an emphasis on D.1. 1 3G and 4G groove weld test with backer and without backer. This course will also introduce students to welding pipe and performing the 6G weld test at the end of the course. (Prerequisites: WELD 1025 - Introduction to Shielded Metal Arc Welding or equivalent from another school or instructor approval.)

WELD1136 - Advanced Gas Metal Arc Welding (2 Credits) This course is more concentrated on the pulse welding of Gas Metal Arc Welding (GMAW). Student will learn how to pulse on carbon steel, stainless steel, and aluminum. Students will learn more about the Flux Core Arc Welding (FCAW). At the end of the course student will take D1.1 weld test(s) in Pulse and in FCAW. (Prerequisites: WELD 1035 - Introduction to GMAW or equivalent from another technical college or instructor approval.)

WELD1146 - Advanced Gas Tungsten Arc Welding (3 Credits) In this course students will obtain a better knowledge of how to access the programs of the different machines being used. Students will weld in out of position welds. This course will give students more lab time to practice pipe welding. Students will also learn how to pulse gas tungsten arc welding on stainless steel and aluminum. (Prerequisite: WELD 1045 - Introduction to GTAW or equivalent from another technical college or instructor approval.)

WELD1160 - Fabrication I (2 Credits) In this course students will be introduced to the concepts of fabrication. They will also learn proper names of the equipment and hand tools associated with fabrication. (Prerequisite: WELD 1011 - Safety OSHA 10 or instructor approval.)

WELD1175 - Advanced Welding Lab II (4 Credits) In this course students will be given more lab time to incorporate what they have been learning in the other classes. Students will read a print and weld a weldment that may be used by industry. (Prerequisites: WELD 1011 - Safety OSHA 10, WELD 1126 - Advanced SMAW, WELD 1136 - Advanced GMAW, WELD 1108 - Advanced Blueprint Reading, WELD 1146 - Advanced GTAW, WELD 1160 - Fabrication I or instructor approval.)

WELD1200 - Tools used in Fabrication (1 Credit) Students will learn how to use the measuring and hand tools required for the fabrication process. Safety aspects of the tools will be discussed and shown. (Prerequisite: Must be enrolled in the Welding Fabrication Certificate or instructor approval.)

WELD1201 - Roll Forming (2 Credits) In this course students will learn how to roll form sheet steel and tubing. Students will also learn how to use hand tools required to measure radiuses. (Prerequisite: Must be enrolled in Welding Fabrication Certificate or instructor approval.)

WELD1202 - Brake Press Operation (2 Credits) The course will offer individuals the chance to operate a press brake. Students will learn how to call up a program and make sure the correct die is installed. Students will learn the safety aspects of running a press brake. (Prerequisite: Must be enrolled in Welding Fabrication Certificate or approval from instructor.)

WELD1205 - CNC Plasma/Laser Table (3 Credits) This course will offer students the ability to design a piece part in solid work that will be used in a weldment. Students will also learn about the safety aspects of using a plasma/laser table. (Prerequisites: Must be enrolled in Welding Fabrication Certificate or instructor approval.)

WELD1208 - Blueprint for Fabricators (2 Credits) Students will cover the basics of fabrication blueprints. Students will be able to incorporate what they learn in this class into the Fabrication II class. (Prerequisite: Must be enrolled in Welding Fabrication Certificate or instructor approval.)

WELD1211 - Safety OSHA 30 (2 Credits) This course will be going over the different aspects of safety in general manufacturing. At the end of this class, students will be given the opportunity to take the OSHA 30 test. Once passed, they will receive their card. (Prerequisites: Must be enrolled in Welding Fabrication Certificate or instructor approval.)

WELD1260 - Fabrication II (4 Credits) This course will offer the hands-on portion of using a sheet and tubing roller, a press brake and operating a plasma/laser table. The course will offer students a chance to use a blueprint to fabricate a part that will become part of a weldment. (Prerequisite: Must be enrolled in Welding Fabrication Certificate or instructor approval.)

Student and Academic Policies

Policies on Record: Nov. 04, 2024

- [Academic Achievement Policy #3.0002](#)
- [Academic Awards Policy #3.3603](#)
- [Academic Dishonesty Policy #3.0602](#)
- [Academic Forgiveness Policy #3.0001](#)
- [Campus Crime Awareness and Security Protection](#)
- [Children on Campus Policy #6.1103](#)
- [Class Cancellation Protocol](#)
- [College Fees](#)
- [Complaint / Grievance Policy #3.0801](#)
- [Complaint / Grievance Procedure #3.0801.001](#)
- [Course Cancellation Policy #3.2203](#)
- [Course Drops and Withdrawals Policy #5.1202](#)
- [Course Drops and Withdrawals Procedure #5.1202.0001](#)
- [Credit for Prior Learning \(CPL\) Policy #3.3501](#)
- [Credit for Prior Learning \(CPL\) Procedure #3.3501.0001](#)
- [Credit Hour Policy #3.2902](#)
- [Credit Life Span Policy #3.2901](#)
- [Crime Victims' Rights](#)
- [Data Privacy](#)
- [Degree Requirements](#)
- [Education Abroad Policy #3.4101](#)
- [Education Abroad Procedure #3.4101.0001](#)
- [Electronic Equipment Checkout DoIT – SCC Students](#)
- [Emergency Response, Notification and Evacuation #5.2401](#)
- [Enrollment Policy #3.0401](#)
- [Enrollment Procedure #3.0401.0001](#)
- [Extended Student Absences Procedure #3.0003.0002](#)
- [Eye Safety Policy #5.2406](#)
- [Facilities Use Policy #6.0701](#)
- [Grading Policy #3.0005](#)
- [Grading Procedure #30005.001](#)
- [Graduation Policy #3.0007](#)
- [Harassment/Nondiscrimination in Employment & Education Policy - Minnesota State #1B.01.01](#)
- [Immunization Policy #3.0102](#)
- [Injury/Illness Reporting Policy #: 4.0004](#)
- [Maximum Credit Load Policy #3.0402](#)
- [Official Student Email Policy #5.2203](#)
- [Parking Fee and Regulations](#)
- [Postsecondary Enrollment Options \(PSEO\) Policy #3.0501](#)
- [Postsecondary Enrollment Options Procedure #3.0501.0001](#)
- [Preferred Name Procedure #1B.01.0201](#)
- [Protests and Demonstrations Policy #5.0001](#)
- [Satisfactory Academic Progress Policy #2.0901](#)
- [Service Animals Guideline #6.1101.00.0001](#)
- [Sexual Violence Policy and Procedure for Students and Employees - Minnesota State #1.B.03](#)
- [Star Alert Policy #5.2403](#)
- [Student Accommodation Procedure](#)
- [Student Background Policy \(Health and Child Care Majors\) #2.0001](#)
- [Student Background Procedure #2.00.0001](#)
- [Student Code of Conduct Policy #3.0601](#)
- [Student Code of Conduct Procedure # 3.0601.0001](#)
- [Student Drug and Alcohol Use Policy #5.1801](#)
- [Student Emergency #5.2404](#)
- [Student Rights & Responsibilities #3.0101](#)

- [Student Safety & Health Policy #2.0003](#)
- [Tobacco Use Policy #5.1805](#)
- [Transfer Credit Policy #3.2101](#)
- [Transfer Credit Procedure #3.2101.0001](#)

Academic Achievement Policy #3.0002

Policy Statement

To recognize students who have achieved above-average academic progress.

Purpose/Authority

To recognize students who have achieved above-average academic progress.

Scope/Applicability

The Dean's List indicates above-average performance and is announced and published each term. To be eligible for the Dean's List, students must have earned 12 credits and achieved a GPA of 3.500 or above, per term. The Dean's List is announced and published. There is no list for Summer.

To be eligible for the President's List, students must have successfully completed 12 credits during the term, have successfully completed at least 24 cumulative credits, and have a cumulative GPA of 3.8 or higher. The President's List is announced and published. There is no list for Summer.

Date of Last Review: 12/16/2020

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Academic Awards Policy #3.3603

Purpose

To establish standards, processes and conditions that enable consistent implementation of academic program policy.

Applicability

This policy implements Minnesota State System Policy #3.36 Academic Programs.

Definitions

- **Academic award:** A certificate, diploma or degree.
- **Academic program:** A cohesive arrangement of college-level curricular requirements leading to an academic award.
- **Academic program inventory:** The official list of academic programs offered by colleges and universities.
- **Credit:** A unit of measure assigned to a college or university course or an equivalent learning experience that takes into consideration achieved student learning outcomes and instructional time.

Undergraduate Certificate

An undergraduate certificate is awarded upon completion of a 9 to 30 credit academic program. An undergraduate certificate may have an occupational outcome or address a focused area of study. An undergraduate certificate shall not have emphases. At least one-third of the credits in the undergraduate certificate shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation by the faculty and approval by the president of the college or university. An undergraduate certificate less than 9 or more than 30 credits in length may be approved when the academic program prepares an individual for employment and the length or the designation as a certificate is (1) required by an employer, a licensing body or other regulatory agency, accrediting association, or board, or (2) based on a formal task analysis conducted within the previous three years and the results endorsed by an advisory committee.

Diploma

A diploma is awarded upon completion of a 31 to 72 credit undergraduate academic program that prepares students for employment. A minimum of 24 credits shall be in occupational or technical courses. A diploma may have one or more emphases of at least 9 credits when there are at least 30 credits in the major that are common to the emphases. A diploma may be individualized according to the standards outlined in Part 5. Subpart C, to provide a student an opportunity to design an academic program to meet specific occupational goals that cannot be met by current program offerings. At least one-third of the credits in the diploma shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation by the faculty and approval by the president of the college. A diploma of more than 72 credits in length may be approved when the academic program prepares an individual for employment and the length is (1) required by an employer, a licensing body or other regulatory agency, accrediting association, or board, or (2) based on a formal task analysis conducted within the previous three years and the results endorsed by an advisory committee.

Associate of Arts Degree

An associate of arts degree is awarded upon completion of a 60 credit academic program in the liberal arts and sciences without a named field of study. It is designed for transfer to baccalaureate degree-granting college or university. An associate of arts degree requires completion of at least a 40 credit curriculum that fulfills the Minnesota Transfer Curriculum goal areas. The associate of arts degree program is named Liberal Arts and Sciences. An associate of arts degree may have one or more emphases of at least 9 credits each in liberal arts and science fields, provided there is an articulation agreement with a related baccalaureate major offered by one or more system universities.

At least 15 credits in the associate of arts degree shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the system college or university.

Associate of Fine Arts Degree

An associate of fine arts degree is a named degree awarded upon completion of a 60 credit academic program in particular disciplines in the fine arts. An associate of fine arts degree is designed to transfer in its entirety to a related fine arts discipline baccalaureate degree program. An articulation agreement with a related baccalaureate degree program at a regionally accredited university is required. A system college shall pursue an articulation agreement with a system university before establishing an articulation agreement with a non-system university. An associate of fine arts degree program may be individualized according to the standards outlined in Part 5, Subpart F. Associate of fine arts individualized studies degree programs do not require an articulation agreement. An associate of fine arts degree requires a minimum of 24 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum. Requirements for the following disciplines have been adopted.

- Art. An associate of fine arts degree in art requires the minimum of 24 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.
- Music. An associate of fine arts degree in music requires at least 30 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.
- Theatre Arts. An associate of fine arts degree in theatre arts requires completion of the entire Minnesota Transfer Curriculum with a minimum of 40 credits.

An associate of fine arts degree shall not have emphases. An associate of fine arts degree program may be individualized according to the standards outlined in Part 5, Subpart F, to provide a student an opportunity to design an academic program to meet specific academic or occupational goals that cannot be met by current program offerings.

At least 15 credits in the associate of fine arts degree shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the system college or university. A waiver may be granted to exceed a length of 60 credits when (1) the waiver criteria in Part 3, Subpart C, are met and (2) an articulation agreement specifies the transfer of a greater number of credits.

Associate of Science Degree

An associate of science degree is awarded upon completion of a 60 credit academic program in scientific, technological, or other professional fields.

The associate of science degree is designed to transfer in its entirety to one or more related baccalaureate degree programs. A college shall pursue an articulation agreement with one or more system universities before establishing an articulation agreement with a non-system university.

An associate of science degree program may be individualized according to the standards outlined in Part 5, Subpart F. Associate of science individualized studies programs do not require an articulation agreement.

An associate of science degree may address a single specialty or a set of allied specialties such as, but not limited to, (1) agriculture, (2) business, (3) computer and information sciences, (4) education, (5) engineering, (6) engineering technologies, (7) environmental sciences, (8) health sciences, and (9) natural sciences.

The associate of science degree requires a minimum of 30 credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.

An associate of science degree shall not have emphases.

An associate of science degree may be individualized according to the standards outlined in Part 5, Subpart F, to provide a student an opportunity to design an academic program to meet specific occupational goals that cannot be met by current program offerings.

At least 15 credits in an associate of science degree shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the system college or university.

A waiver may be granted to exceed a length of 60 credits when (1) the waiver criteria in Part 3, Subpart C, are met and (2) an articulation agreement specifies the transfer of a greater number of credits.

Associate of Applied Science Degree

An associate of applied science degree is awarded upon completion of a 60 credit academic program in a named field of study in scientific, technological or other professional fields. An associate of applied science degree prepares students for employment in an

occupation or range of occupations. An associate of applied science degree may also be accepted in transfer to a related baccalaureate program.

An associate of applied science degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum. At least 30 credits shall be in the academic program's occupational or technical field of preparation.

An associate of applied science degree may have one or more emphases of at least 9 credits each when there are at least 30 credits in the major that are common to the emphases.

An associate of applied science degree program may be individualized according to the standards outlined in Part 5, Subpart F, to provide a student an opportunity to design an academic program to meet specific occupational goals that cannot be met by current program offerings.

At least 15 credits in an associate of applied science shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the system college or university.

A waiver may be granted to exceed a length of 60 credits when (1) the waiver criteria in Part 3, Subpart C, are met and (2) an articulation agreement, where applicable, specifies the transfer of a greater number of credits.

Date of Last Review: March 23, 2018

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Academic Dishonesty Policy #3.0602

Purpose

To define academic dishonesty and outline consequences for students who engage in academic dishonesty.

Definitions

1. Academic Dishonesty - includes misconduct associated with the classroom, laboratory or clinical learning process. Some examples of academic misconduct are cheating and plagiarism.
2. Cheating - includes, but is not limited to, (a) use of any unauthorized assistance in taking quizzes, tests or examinations; (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments or (c) the acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff.
3. Plagiarism - plagiarism is intellectual theft and includes, but is not limited to, the undocumented use of information—paraphrase or direct quotation—from the published or unpublished work of another person or source; plagiarism also includes using papers/writings from an agency engaged in the selling of term papers or other academic materials.

Applicability

When a faculty or staff member encounters an incident of academic dishonesty they will submit the [Academic Dishonesty Report form](#) to the academic dean responsible for the course, which details the alleged incident, and provides evidentiary documentation. The Dean will determine whether other incidences of academic dishonesty have been reported by requesting such information from the Office of the Vice President of Academic and Student Affairs. Violations will be tracked in the dean's office and in the office of the Vice President of Academic and Student Affairs.

Sanctions

If a violation of the code for academic dishonesty is established by a preponderance of evidence the following sanctions will apply:

1. For the first violation: the faculty member will impose sanctions which could include, but are not limited to, a written notice to the student, grade adjustment, additional academic assignments, or course failure. The Dean will inform the student in writing of the evidence and sanctions, and will attach a copy of the academic dishonesty policy. The Dean will set a meeting date with the student to discuss the violation.
2. For the second violation: Failure of the course in which the academic dishonesty occurs. The Dean will issue a written reprimand which becomes part of the permanent student record.
3. For the third violation: college expulsion-permanent separation of the student from the college will be imposed upon the approval of the Vice President of Academic and Student Affairs.

Date of Last Review: 10/14/2022

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Academic Forgiveness Policy #3.0001

Part 1. Policy Statement

Academic Forgiveness provides students who have not studied at South Central College for a period of at least three calendar years a one-time opportunity to establish a new grade point average (GPA). This policy will not apply if a student has earned a degree, diploma or certificate from SCC for the period in which they are asking forgiveness.

Part 2. Purpose/Authority

The Academic Forgiveness Policy acknowledges that sometimes students' academic careers can be negatively impacted by various factors, thereby limiting future satisfactory academic progress. The policy recognizes that while students may not have satisfactorily met the academic requirements of their previous educational plans, they now may have the tools necessary to achieve their educational goals

Part 3. Scope/Applicability

This policy is available to all SCC students providing they meet the policy requirements.

Part 4. Definitions

Students who request academic forgiveness under this policy must meet the following conditions:

- The student must not have been enrolled for any credit classes at South Central College for a minimum of three calendar years prior to the point of academic forgiveness.
- The student must be readmitted to SCC and must complete at least 12 credits in consecutive terms (summer term not required) with a 2.0 term GPA and 67% completion before academic forgiveness will be considered.

The student must submit a request for academic forgiveness to the Registrar. The student must indicate the semester at which academic forgiveness would begin. All semesters prior to the selected date will be impacted. Academic forgiveness will be considered on a semester basis only; course-by-course considerations will not be given.

There will be no financial refunds associated with academic forgiveness. All financial obligations to the college must be satisfied.

Academic forgiveness at SCC will only be granted once in a student's academic career.

Part 5. Major Sections

The student must request the academic forgiveness by completing the form in the Registrar's Office.

The Registrar will review the request and make the determination if the eligibility requirements have been met. The student will be notified by email to their SCC email account whether or not the request for academic forgiveness has been granted.

If the request for academic forgiveness is granted, the Registrar will make the following adjustments to the student's transcript:

- The student transcript will be separated into two sections indicating the point of academic forgiveness. *Academic Forgiveness* will be noted on the student transcript.
- No credit will be granted for any course completed at SCC prior to the point of academic forgiveness. Excluded courses cannot be used to satisfy any academic requirement to include degree or graduation requirements. The courses will no longer impact the cumulative grade point average (GPA). The courses will no longer impact the cumulative completion percentage. The course titles and grades will remain visible on the student transcript.
- Federal financial aid regulations do not recognize academic forgiveness.
- Transfer institutions may not honor SCC's Academic Forgiveness Policy.

- Academic Forgiveness will not remove previous Suspension notations.

Date of Last Review: 11/19/2020

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Campus Crime Awareness and Security Protection

Campus Security Reports: South Central College encourages students and college community members to be fully aware of the safety issues occurring on the campus and to take action to prevent and to report illegal and inappropriate activities. Personal awareness and applying personal safety practices is the foundation of a safe community.

SCC monitors criminal activity and maintains a three-year statistical history on both the Faribault and North Mankato campuses. All criminal activity will be recorded in a separate category.

SCC personnel have no enforcement authority over instances of criminal actions, thus campus personnel are not expected to detain a person suspected of such activities. Any intervention attempts will be viewed as voluntary. A report will be filed to include information on date, time, category and description of the occurrence and persons witnessing and reporting the incident. The Faribault and North Mankato police have enforcement authority over instances of criminal actions occurring on each campus.

SCC encourages accurate and prompt reporting of all crimes to the appropriate Law Enforcement Agency as well as the SCC Security Director. When requested, the SCC Security Director will assist in reporting an occurrence to the appropriate law enforcement agency.

SCC currently has a variety of policies and procedures relating to campus security. SCC expressly reserves the right to modify them or adopt additional policies or procedures at any time without notice.

Crime Prevention Programming Authority: Information concerning campus security is presented as part of the student orientation process and at a staff in service session. Information to promote awareness of crime prevention tactics and to encourage students and staff to be responsible for their own security and the security of others, will also be presented at those times.

Educational programs to promote the awareness of rape, acquaintance rape and other forcible and non-forcible sex offenses, are available, and may be accomplished through the use of video productions, brochures, speakers or other resources. Video tapes and instructional materials are available in the media center.

Patrol: The SCC campuses are patrolled on a regular basis by local city police. There is no access to campus facilities after hours unless accompanied by staff. The Faribault campus is controlled by an alarm system.

Criminal Reports: On the Faribault campus, all criminal actions occurring on campus shall be directed to the SCC Security Director; on the North Mankato campus, all criminal actions occurring on campus shall be directed to the SCC Security Director. The report may be presented orally or in written form.

Procedures and Assistance: Authorized college personnel will assist in reporting the occurrence to appropriate police authorities immediately, or in a timely manner, following receipt of the information. In the event that no college staff members are available, the

individual reporting the occurrence is encouraged to contact local law enforcement agency directly by dialing 911 for emergencies. Authorized personnel can also assist with contacting sexual assault services and safe centers if requested using the following numbers:

Faribault

Emergency - Police, Fire, Medical 911

Non-Emergency (City Police) 334-4305

Hope Center 1-800-607-2330 or 332-0882

North Mankato

Emergency - Police, Fire, Medical 911

Non-Emergency (City Police)

Business Hours 625-4141

Non-Business Hours 931-1570

CADA House Crisis/Shelter 1-800-477-0466 or 625-7233

Sexual Assault Services 1-800-630-1425

When on campus evenings or weekends talk with your instructor/advisor prior to leaving if you have any concerns.

The complete report of Campus Crime is available online at www.southcentral.edu; click on student portal; click on resources.

AASC 1/28/11

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Children on Campus Policy #6.1103

Policy Statement

Visitors to campus are welcome and encouraged. However, appropriate precautions and limitations on visitations are necessary to protect health and safety and to maintain productivity and regulatory compliance.

Purpose/Authority

This policy is established to avoid disruptions in job duties of the employee and co-workers, reduce personal and property liability, and help promote the learning environment of the college.

Scope/Applicability

This policy applies to all South Central College employees, students, faculty and visitors on campus.

Definitions

As used in this policy, the terms “minor” and “children” are defined as any individual who has not reached the age of 18 that are not enrolled students, including PSEO students. For purposes of this policy, difficulty or inability in arranging childcare does not constitute an emergency

Date of Last Review: 10/24/2023

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Class Cancellation Protocol

Applicability:

On occasion, it may be necessary for an instructor to cancel a class. Faculty will email the appropriate Dean and notify their students. These cancellations will be posted on classroom/lab doors, monitor, D2L and the SCC website as quickly as possible.

Date & Subject of Revisions: December 8, 2017

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College Fees

Student Life Fee: The Student Life Committee, made up of members of all recognized student organizations, determines the fee that supports student senate sponsored activities, student organization activities, student centered activities, and membership in the Minnesota State College Student Association. This fee is assessed per credit on all credit valued classes.

Parking Fee: The parking fee will be assessed on a per credit basis. with a limit not to exceed the fulltime employee rate. Parking fees are dedicated to the maintenance, improvement and monitoring of SCC parking lots. By statute, neither tuition nor state appropriation dollars may be used for these purposes. This fee is assessed per credit on all credit valued classes.

MSCSA Fee: The Minnesota State Colleges Student Association fee is currently \$0.31 per credit.

Student Health Fee: the Student Health Advisory Committee is composed of a majority student representatives from both campuses with faculty and staff support. It investigates and recommends to the President the most effective uses of the student health fee to meet student needs for mental and emotional support counseling. This fee is assessed per credit on all credit valued classes.

Technology Fee: A technology fee will be charged each term to all students for the acquisition, upgrading and/or maintenance of technology for academic and student support services. The fee will be used to provide or enhance student access to technology. This fee is assessed per credit on all credit valued classes. Students are represented on the Technology Committee which establishes the technology fee.

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Complaint / Grievance Policy #3.0801

Purpose/Authority

In accordance with [Minnesota State Board Policy 3.08](#), a student has the right to seek remedy for a dispute or disagreement through a complaint or grievance procedure.

Scope/Applicability

This policy addresses a student's right to seek a remedy for a dispute or disagreement through a designated complaint or grievance procedure. South Central College (SCC) encourages students to use available informal means to have decisions reconsidered before filing a complaint or grievance.

- The Student Complaints and Grievance Procedure does not supersede existing college or system policies or procedures that include an appeal or grievance process, such as a grade appeal or a discrimination or harassment complaint.
- Upon completion of the Student Complaint process, and if the complaint is not resolved, students have the ability to submit a formal grievance with South Central College.
- No retaliation of any kind will be taken against a student for participation in a complaint or grievance. Complaints and grievance procedures are protected under data privacy rights.
- Out of State Student Complaint Process: South Central College has a formal Student Complaint Policy and Procedure. If your issue can't be resolved using this policy and procedure at South Central College you may contact the [Minnesota Office of Higher Education](#). If you reside in another state here is a [list](#) of state contacts.

Definitions:

Complaint - A verbal or written claim concerning a college issue alleging improper, unfair, or arbitrary treatment.

Grievance - A written claim raised by a student alleging improper, unfair, or arbitrary action by an employee involving the application of a college or board policy or procedure.

Retaliation - Retribution taken against a student for participating or not participating in a complaint or grievance. Retaliation of any kind is prohibited.

Student - An individual or group of individuals enrolled at South Central College.

Forms:

[Concerns and Complaint Information](#)
[Complaint Form](#)

Date of Last Review: 05/26/2022

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Complaint / Grievance Procedure #3.0801.001

Purpose Statement

To establish a student complaint process

Procedures:

Informal Complaint Process

A student is encouraged to discuss or submit a complaint directly with the college employee(s) whose actions give rise to the complaint and/or with the supervisor to whom the employee(s) report(s) in order to clarify and/or resolve the complaint.

Formal Complaint Process

If no resolution can be reached in the informal complaint process between the student and staff member, the student may complete the [SCC Student Complaint form](#). If a student is unable to complete this form, they are encouraged to seek assistance from a Student Affairs advisor, counselor or other staff. A submitted complaint is routed to the Associate Vice President for Student Affairs for assignment.

A submitted complaint will be designated to a reviewer within two business days.

- Academic complaints (grades, program requirements, faculty concerns, etc.) will be routed to the appropriate academic dean and department chair, if applicable.
- Business operations complaints (tuition, parking, building and grounds) will be routed to the Vice President of Finance and Operations.
- Student Affairs department complaints (Admissions, Financial Aid, Registration, Advising, Academic Support, etc.) will be routed to the Associate Vice President of Student Affairs.
- Student Code of Conduct and Academic Dishonesty complaints will be addressed in accordance with Student Code of Conduct and Academic Dishonesty policies and procedures (see related policies).
- Other complaints will be routed to the appropriate supervisor.

After assigning a reviewer, the student will receive a response from the reviewer within ten business days. If the complaint cannot be resolved with the reviewer, the student may request in writing a grievance

Grievance Procedure

If the student does not agree with the outcome of the Complaint Process and the complaint constitutes a grievance, the student may submit a formal grievance in writing to the Vice President of Academic and Student Affairs. After reviewing all documentation and meeting with the student, the Vice President will issue a response in writing.

Appeal Procedure

SCC will follow Minnesota State Board System Procedure: [3.8.1 Student Complaints and Grievances, Subpart C - Appeals](#)

List of Related Policies or Procedures

[3.08 Student Complaints and Grievances policy \(System\)](#)
[3.08.01 Student Complaints and Grievances procedure \(System\)](#)
[3.06 Student Conduct policy \(System\)](#)
[3.06.01 Student Conduct procedure \(System\)](#)
[3.0601 Student Code of Conduct policy](#)
[3.0601.0001 Student Code of Conduct procedure](#)

Date of Last Review: 05/26/2022

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Course Cancellation Policy #3.2203

Policy Statement

Courses may need to be cancelled prior to the start of the semester due to low enrollment or other extenuating circumstances.

Purpose/Authority

The purpose of this policy is to establish a transparent, collaborative process if a course needs to be cancelled prior to the start of the semester due to low enrollment or other circumstances.

Definitions

Low Enrollment - A course is considered low enrollment if seats filled are less than 10 or less than 50 percent of the class maximum.

Major Sections

Subpart A. Student Break Even Analysis. Academic deans and other college administrators may use a break-even analysis formula to determine the financial impact of current course enrollments.

Subpart B. Other Considerations.

- A. The impact of cancelling the course on the program, especially where the course is a program and/or degree requirement.
- B. Whether the course is needed for the students currently enrolled to graduate or continue towards their educational goals in a timely fashion.
- C. Impact to faculty workload and contractual obligations.
- D. Late start courses.
- E. Other program, campus-specific, or course-specific considerations as determined by college administration.

Subpart C. Student Financial Obligation. Students will not be obligated for tuition and fees of courses that have been cancelled.

Subpart D. Communication. Students will receive written notification of a course being cancelled no later than one week prior to the start of the semester. Student support will be available to ensure students are able to replace the cancelled course with another reasonable course applicable to their program of study.

Date of Last Review: 5/25/2023

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Course Drops and Withdrawals Policy #5.1202

Policy Statement

To comply with Minnesota State College and University Board policy for the refund of tuition and fees and for the period in which a student may drop or withdraw from a class.

Scope/Applicability

Students can drop from a course until the 5th day of a standard term. Withdrawal from a course will be allowed after the 5th day of the standard term and until the 60th day of the term or until 80 percent of the course has been held and will be shown as a W on the transcript. After that point withdrawals will not be allowed and students will be graded according to their performance in the course.

Definitions

Course drop. A course drop is the removal of a class from a student's record to show no record of enrollment. Course drop deadlines are established each term in accordance with Minnesota State College and University Board policy.

Course withdrawal. A course withdrawal is the official way for a student to remove them self from a class they do not intend to complete. The course withdrawal period follows the course drop period. Course withdrawal deadlines are established each term in accordance with Minnesota State College and University Board policy. Withdrawn courses remain on a student's record with a grade of W.

College-initiated course drop or withdrawal. College administration may initiate a course drop or withdrawal according to policies established by the College and Minnesota State Colleges and Universities Board of Trustees.

Major Sections

Subpart A: Financial Implications of a Course Drop or Withdrawal

- A student who drops a course or withdraws from all courses may be entitled to a refund or partial refund of tuition and fees.
- A student who drops or withdraws from a course after the semester disbursement of financial aid may be subject to the cancellation of a portion or all of the financial aid the student received. The student may be obligated to return financial aid overages disbursed to them and may be required to pay the tuition and fee charges that were previously covered by the student's aid award.

Subpart B: Academic Implications of a Course Drop or Withdrawal

- A student who drops or withdraws from a class, or who has been administratively dropped or withdrawn from a class, is no longer eligible to participate in that class.
- A dropped course is no longer considered enrolled credits, effective first day of the term. A withdrawn class is no longer considered enrolled credits, effective from the date of withdrawal.
- Withdrawn credits are considered attempted but not earned for the calculation of percent completion when assessing satisfactory academic progress.

List of related policies or procedures

- 2.0901 Satisfactory Academic Progress policy
- 2.09 Academic Standing and Financial Aid Satisfactory Academic Progress (System)
- 5.11 Tuition and Fees policy (System)
- 5.11.01 Tuition and Fees procedure (System)
- 5.12 Tuition and Fee Due Dates, Refunds, Withdrawals and Waivers policy (System)

3.34 Academic Semester Start Dates policy (System)
3.34.01 Official Academic Semester Start Dates procedure (System)

Date of last review: 2/3/2020

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Course Drops and Withdrawals Procedure #5.1202.0001

Purpose Statement

To comply with Minnesota State Colleges and University Board policy for the refund of tuition and fees and for the period in which a student may drop or withdraw from a class.

Procedures

Subpart A: Course Drops or Withdrawals

During the first five days of the fall and spring semesters and the first five days of the first summer session, students may drop a class (remove it from their academic record). Post- Secondary Enrollment Options (PSEO) students may drop a class within the first 10 days. For late- starting classes, weekend classes and other classes that do not meet the full length of the term (including classes that begin after the fifth day of the first summer session), students can drop through the end of the business day following the first class meeting (or online course begin date).

The course withdrawal period immediately follows the course drop period. Course withdrawal allowed until the 60th day of the term or until 80 percent of the course has been held. The College's student information system automatically calculates the withdrawal deadline. Withdrawal deadlines are published in eServices, and published course schedule. Withdrawn courses remain on a student's record with a grade of W.

College administration may initiate a course drop or withdrawal as a result of the student's failure to pay tuition, failure to attend classes, failure to meet course prerequisites, failure to meet the standards of satisfactory academic progress, violations of the code of conduct and other situations.

Subpart B: Financial Implications

A student who drops a course or withdraws from all courses may be entitled to a refund or partial refund of tuition and fees.

A student who drops or withdraws from a course after the semester disbursement of financial aid may be subject to the cancellation of a portion or all of the financial aid the student received. A student may be obligated to return financial aid overages disbursed and may be required to pay the tuition and fee charges previously covered by the aid award.

A student who has been administratively removed from a class may not be eligible for a refund of tuition or fees.

Financial aid recipients who completely withdraw from or stop attending a term prior to the 60% point of that term are subject to the Federal Return of Title IV fund rules for any federal aid not earned. Students are also subject to the Minnesota Office of Higher Education refund calculation for Minnesota State grant, scholarship or loan aid. If the student received financial aid, a portion of the refund will be returned to the grant or loan program from which it was received and the student may owe the college for a portion of the tuition and fees.

The Federal Return of Title IV Funds formula dictates the amount of federal Title IV aid that must be returned to the federal government by the school and the student. The federal formula requires a return of Title IV aid if the student received federal financial aid and withdrew or stopped attending all classes on or before completing 60% of the semester. The percentage of Title IV aid to be returned (that which is unearned) is equal to the number of calendar days remaining in the semester divided by the total number of calendar days in the semester.

Scheduled breaks of more than four (4) consecutive days are excluded. After 60% of the semester, the student has earned all financial aid and is not subject to the return of funds.

The responsibility to repay unearned aid is shared by the institution and the student in proportion to the aid each is assumed to possess. The institution's share is allocated among the Title IV programs, before the student's share, in the following order: Federal Direct Unsubsidized Loan, Federal Direct Subsidized Loan, Federal Direct PLUS Loan, Federal Pell Grant, and Federal SEOG. Any remaining

unearned aid is the responsibility of the student, must be collected from the student, and then must be allocated among the Title IV programs in the order indicated above.

Official Withdrawal: The date the student officially withdraws from all courses is used to determine the portion of the Federal Title IV aid earned to be used to pay institutional charges.

Unofficial Withdrawal: Students who stop attending and receive failing grades in all courses are assumed to be an unofficial withdrawal. The date of withdrawal for the Return of Title IV calculation is determined by the last date of attendance as recorded by faculty at the time of grade submission.

Post Withdrawal Disbursement: A student may withdraw from all courses before disbursement. Title IV grant funds will be applied to any unpaid tuition and fees balance for the term, once determined that the student began attendance in all courses and qualified for earned aid. The student is notified of their eligibility and right to return funds within 45 days of notification. If Title IV loan funds are part of a post-withdrawal disbursement, the student (or parent, in the case of a Direct PLUS loan) will be contacted in writing to approve or decline any post-withdrawal disbursement amount. Accepted loan funds will be disbursed within 180 days of the date the school determined the student withdrew. If the post-withdrawal disbursement creates excess financial aid on the student's account, the funds will be disbursed to the student in the manner selected within 4 days of the funds being applied to the account.

The college will calculate its share of unearned Title IV funds and notify the student no later than 30 days after it determines that the student withdrew (official or unofficial) and will return the funds within 45 days. Students return their share of unearned aid attributable to a loan under the terms and conditions of the promissory note. The college allows the student to repay unearned aid attributable to a grant under a payment arrangement satisfactory to the college. The student need not repay any grant calculation that is \$50 or less.

Subpart C: Academic Implications

A dropped course is no longer considered enrolled credits, effective from day one of the term. A withdrawn class is no longer considered enrolled credits, effective from the date of withdrawal.

Withdrawn credits are considered attempted but not earned for the calculation of percent completion when assessing satisfactory academic progress.

After 80% of term, withdrawals will not be allowed and student will be graded according to their performance in the course.

List of related procedures or policies

- 2.0901 Satisfactory Academic Progress policy
- 2.09 Academic Standing and Financial Aid Satisfactory Academic Progress (System)
- 5.11 Tuition and Fees policy (System)
- 5.11.01 Tuition and Fees procedure (System)
- 5.12 Tuition and Fee Due Dates, Refunds, Withdrawals and Waivers policy (System)
- 3.34 Academic Semester Start Dates policy (System)
- 3.34.01 Official Academic Semester Start Dates procedure (System)

Date of last review: 2/3/2020

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Credit for Prior Learning (CPL) Policy #3.3501

Part 1. Policy Statement

To create guidelines, standards, and procedures that enable students to enrich or accelerate their programs of study by eliminating duplication of learners' educational efforts through the awarding of credit for prior learning.

Part 2. Purpose/Authority

This policy is issued pursuant to the Minnesota State College and University (Minnesota State) System Policy 3.35 (Credit for Prior Learning Policy) and Procedure 3.35.1 (Credit for Prior Learning Procedure). The South Central College Academic Affairs and Standards Council (AASC) will provide direction regarding Credit for Prior Learning.

Part 3. Scope/Applicability

All Students

Part 4. Definitions

CPL evaluation opportunities are available to learners who demonstrate knowledge, skills and abilities. These may be acquired through work, professional training, military training, and other learning domains which are assessed by academically sound and rigorous processes. Credentialed faculty in each discipline will establish the course criteria and assess fulfillment to determine credit awarded.

Part 5. Major Sections

Subpart A. Guiding Principles

- CPL credits will be applicable to a course or academic award offered at South Central College.
- Assessment of prior learning, including the course criteria, is the responsibility of credentialed faculty in the academic discipline of the course(s) or academic award.
- Students initiate the CPL process by documenting how their learning achieves course competencies.
- While CPL is typically pursued prior to enrolling in a course, upon non-successful completion of a course, CPL may be pursued. If CPL credit is approved after non-successful course completion, it will be recorded on the transcript as a repeated course per SCC Repeating a Course policy.
- CPL credits should be awarded only for college-level learning that balances theory and practical application.
- Current best practices will be used in assessing prior learning.
- CPL assessment will be officially documented to ensure academic integrity, consistency and transparency.
- Information, criteria and processes for CPL will be available and easily accessible.
- Students and faculty will evaluate the CPL process in support of continuous improvement; results will be publicly available.
- CPL assessment may be limited by availability of credentialed faculty, space, lab, and materials.

Subpart B. Standards and Criteria

Section 1. Standards

Participating faculty, program leaders and division chairs will use the following standards for assessing CPL credits:

- CPL credit will be awarded only for learning and not for experience.
- CPL credit will be awarded only for college-level learning.
- CPL credit will be awarded only for learning that matches the competencies of a current course in a student's declared program of study.
- CPL credit recommendations must be made by credentialed faculty in the academic discipline of the course(s) or academic award and approved by academic deans.

- CPL credit will be awarded only for non-credit learning which has occurred outside of college coursework.
- All material submitted for review of CPL will be considered the property of the College.

Section 2. Criteria Admittance/Enrollment

- CPL credits will not count toward the enrollment of a specific term, nor will credit be counted in determining part-time or full-time student enrollment status for financial aid purposes.

Type of credits:

- CPL may be applied toward courses in certificate, diploma and degree programs only for the purpose of satisfying graduation requirements.

Number of credits:

- The maximum number of CPL credits awarded will be determined on a programmatic basis not to exceed two-thirds of the program award requirements.

Grading/Grade Point Average:

- Letter grades will be assigned for internal assessment by SCC credentialed faculty for each CPL credit course per SCC Grading and Grade Change Policy consistent with the current grading method of the course.
- Credit granted for external assessments will be recorded as a passing grade (P).
- CPL credits are not included in calculating a student's GPA.

Cost/Tuition Structure:

- Fees charged for CPL should be based on the services performed in the process and not determined by the amount of credit awarded.
- Fees allocated to the maintenance of the CPL program may include costs of administration, marketing, transcription services and compensation for the assessment of the credit.
- A fee shall not be charged for analysis and awarding of credit for training delivered by the United States military as found in Minnesota State Board Policy 5.11 and Procedure 5.11.1 Tuition and Fees.

Financial Assistance:

- Assessments completed by institution faculty and recorded as resident credits may qualify for financial aid, according to laws governing federal financial aid.

Residency:

- CPL credits awarded through internal assessment will count for institutional residency and toward graduation residency requirements as found in Minnesota State Board Policy 3.36 and Procedure 3.36.1 Academic Programs.

Challenges:

- If the evaluation for competency demonstration is unsuccessful, the student may challenge the decision as soon as the next semester. Students are limited to two attempts at CPL per course.

Other:

- The CPL process may be initiated at any time.

Section 3. Procedures and Practices

Procedures and practices pursuant to this policy shall be developed, maintained and publicized and be consistent with this policy and Minnesota State Policy 3.35 (Credit for Prior Learning Policy) and Procedure 3.35.1 (Credit for Prior Learning Procedure).

Section 4. Transferability

SCC will accept the transfer of CPL credits earned at another regionally accredited institution so long as those credits apply to a requirement of the student's academic award.

Section 5. Acceptance of Prior Learning Transfer Credits

South Central College will allow the transfer of credits earned through Prior Learning Assessment at another Minnesota State institution so long as those credits correlate to a specific course that is required for the student's program major, and given that the course in question is equivalent to a required South Central College course.

Section 6. Compliance with Legislation

South Central College shall grant credit for prior learning for a veteran's military training or service in compliance with Subd.2 of Minnesota Statute 197.775 Higher Education Fairness.

Section 7. Data Collection and Reporting

SCC will collect, track, evaluate and report the awarding of CPL.

Section 8. Information Dissemination

SCC will provide accessible and timely information to prospective and admitted students regarding opportunities for credit for prior learning.

Section 9. Faculty and Staff Development

Personnel involved in CPL will receive preparation for engagement with the institution's CPL Program Policies and Procedures. Professional development will include benefits, opportunities, assessment tools, and associated processes of SCC credit for prior learning.

Section 10. Policy Review

This policy will be reviewed and modified as appropriate through the Academic Affairs and Standards Council process.

Part 6. Forms: n/a

Date of Last Review: 02/14/2024

List of related policies or procedures

- 3.35 Credit for Prior Learning policy (System)
- 3.35.01 Credit for Prior Learning - External Assessments procedure (System)
- 3.35.02 Credit for Prior Learning – Internal College/University Assessments (System)
- 3.35.03 Military Courses and Military Occupations procedure (System)
- 5.11 Tuition and Fees policy (System)
- 5.11.01 Tuition and Fees procedure (System)
- 3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum policy (System)
- 3.21.01 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum procedure (System)
- 3.29 College and University Transcripts policy (System)
- 3.29.01 College and University Transcripts procedure (System)
- 3.36 Academic Programs policy (System)
- 3.36.01 Academic Programs procedure (System) 3.0005 Grading policy
- 3.0005.0001 Grading procedure

Date of Last Review: 2/14/2024

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Credit for Prior Learning (CPL) Procedure #3.3501.0001

Purpose Statement

These procedures define the requirements for implementation of Policy 3.3501 to enable students to enrich or accelerate their programs of study by eliminating duplication of learners' educational efforts through the awarding of credit for prior learning.

Scope/Applicability

All Students

Procedures

Subpart A. Methods of Assessing Credit for Prior Learning and Definitions

The assessment of CPL includes the use of a broad range of tools for demonstration of competence that includes, but is not limited to: nationally recognized and locally developed examinations; individual assessments; portfolio review; non-college education and training and industry recognized credentials.

Section 1. Standard Exams:

- **Advanced Placement (AP)** is a program that offers college level courses at high schools followed by an examination.
- **College Level Examination Program (CLEP)** is a series of examinations that test an individual's college level knowledge.
- **DANTES Subject Standardized Test (DSST)** is a series of 37 examinations in college subject areas that are comparable to the final or end-of-course examinations in undergraduate course examinations in liberal arts and sciences subject areas.
- **Excelsior College Examinations (UExcel)** is a credit by examination program offered in a computer-based format at thousands of test centers globally. These exams include the Excelsior College Examination or UExcel exams and their predecessors, the Regents College Examination and the ACT Proficiency Exam Program.
- **International Baccalaureate (IB)** is an educational program and examination administered in English, French, or Spanish.
- **New York University Foreign Language Proficiency (NYUFLP)** tests three skills - listening, reading, and writing in over 50 languages.
- **National Occupational Competency Testing Institute (NOCTI)** delivers assessments or standardized tests for students studying career and technical programs.
- **Thomas Edison College Examination Program (TECEP®)** exams are similar to final exams for college courses. College credit is awarded based on scores earned on the Thomas Edison State College Examination Program.

Section 2. Challenge Exams/Credit by Examination (Test Out)

- A challenge exam is an opportunity for a student to demonstrate college-level learning through course-specific institutional examination designed by college faculty who teach the course.

Section 3. Individual Assessments

- **Portfolio Assessment** is a method of prior learning assessment that includes, but is not limited to: documentation review; candidate interview; performance assessment; product review; written narrative; a combination of these methods; or other means.
- **Skill Simulation or Demonstration** is an assessment of a student's performance or demonstration of a specific skill or competency.
- **Interview-based Assessment** is an evaluation of responses given during a structured interview on the subject matter.

Section 4. Evaluation of Non-College Education and Training:

- **ACE Military – Training, Occupations and Other Military Credit** utilizes the American Council on Education's Guide to the Evaluation of Educational Experiences in the Armed Forces which recommends college credit for formal courses offered by all branches of the military and for military occupations. These recommendations appear on the service member's Joint Services

Transcript (JST) for the Army/National Guard, Navy/Coast Guard, Marine Corps, and Air Force. Other Military Credit refers to SCC's evaluation of military training or experience which has not been recommended by the American Council on Education.

- **ACE CREDIT – Education, Workplace and Training** utilizes the American Council on Education's Guide to College Credit for Workforce Training which recommends college credit for non-accredited general education, corporate, workplace and (non-military) training.
- **NCCRS Workplace and Volunteer Training** utilizes the recommendations of the National College Credit Recommendation Service.
- **Technical or Professional Certification/Credential** is a review of technical or professional certification or industry recognized credential.
- **Technical or Professional Apprenticeship** is a review of apprenticeship programs. Credit is considered for a combination of comprehensive on-the-job training and related instruction of theoretical and practical aspects of highly skilled occupations.
- **Technical or Professional Licensure** is a review of technical or professional licensure programs.
- **Digital badges** are an online validation of proof of skills, achievement, outcome, competency or completion of a course that a student has earned.

Section 5. Other:

- **Minnesota Articulated College Credit (Tech Prep)** is an opportunity for students to explore careers and earn college credit before graduating from high school.
- **Assessment of previous education** includes, but is not limited to, non-equivalent and/or non-transferrable education, hour-based, expired credits, and discontinued programs.
- **Evidence of prior learning that does not fit within the other categories** but aligns with a SCC program.

Subpart B. General Credit for Prior Learning Procedures

Admitted students who feel they have mastered the content of a college course may apply for Credit for Prior Learning (CPL). This process may be initiated at any time.

1. Students review the CPL information found on the www.southcentral.edu/cpl website to gain an overview of the process and to self-assess eligibility for CPL. CPL credit will be awarded for learning that matches the competencies of a current course in a student's declared program of study.
2. Students submit the following to the CPL Coordinator, at CPL@southcentral.edu:
 - CPL Assessment Request form
 - Current resume and/or brief summary that explains learning experiences (see Career and Counseling Center for resume assistance)
3. Student and the CPL Coordinator discuss what potential options for CPL are available to the student and the feasibility of documenting skills and knowledge, based on course competencies and learning objectives.
4. When credit can be attained through methods other than CPL, the student will be referred directly to the Transfer Coordinator.
5. The Academic Dean will identify the credentialed faculty to conduct the assessment. The faculty will confer with the student to determine appropriate assessment method(s), CPL method expectations, and timeframe. If agreed upon, the student and faculty sign the CPL Assessment Confirmation form.
6. The faculty submits the CPL Assessment Confirmation form to the Academic Dean for approval, and then it's routed to the CPL Coordinator. The CPL Coordinator documents approval and forwards to the business office to charge the student account.
7. The student is charged a non-refundable fee based on the CPL assessment method.
8. Once the fee has been paid, the student submits paid student account information and appropriate assessment materials to the CPL Coordinator, who verifies payment to faculty and routes materials to the faculty reviewer, if applicable. Students are encouraged to make a complete copy of assessment materials for their own use before submittal. Submitted assessment materials become the property of South Central College.
9. Faculty conducts the assessment of the student's submission and may request further information from the student.
10. Faculty determine whether a student's prior learning demonstrated the equivalency of the course based on meeting 75% of the learning outcomes. Faculty will specifically state what outcomes are met and what outcomes are not met to clearly illustrate whether or not the stated goal of 75% equivalency has or has not been met. If the student met a portion of learning outcomes, the faculty may consider other CPL options or credit awards (for example: partial credit award and/or an independent study).
11. Faculty will complete the CPL Evaluator Response form for each course where credit was requested signifying approval and a corresponding letter grade or denial of the credit request with a sufficient explanation. The CPL Evaluator Response form will be forwarded to the CPL Coordinator.
12. The CPL Coordinator will review the CPL Evaluator Response form, document completion by faculty, verify payment for the CPL assessment, and make appropriate entries to the student transcript. The CPL Coordinator will notify the Registrar, Faculty, and the Dean's Administrative Assistant of process completion.
13. Credits shall be transcribed according to Minnesota State System Policy.
14. The CPL Coordinator will notify the student in writing of the final outcome of their CPL Assessment Request.
15. If the evaluation outcome is a denial of credit, the student may attempt a second time, upon approval of the faculty. Students are limited to two attempts at CPL per course.
16. If a student disagrees with the CPL evaluation outcome, an appeal process is available from the CPL Coordinator. The student must submit an appeal within six months of notification of the CPL assessment decision.

Subpart C. Standardized Exams General Procedure and Specific Exam Procedures Standardized Exams General Procedure

Credit for prior learning can be earned through standardized exams administered by nationally recognized testing organizations.

- Admitted students must have an official score report sent directly to South Central College, Attn: CPL Coordinator; 1920 Lee Boulevard, North Mankato, MN 56003.
- When a standardized examination outcome covers substantially similar material to course competencies, SCC will award equivalent course credit.
- When a standardized examination outcome is deemed to be college-level, but is not substantially similar to an existing course, elective course credits may be granted in a program area and/or in a Minnesota Transfer Curriculum (MnTC) goal area(s).
- There is no limit to the total number of credits a student may earn through standardized or national exams so long as the total earned credits apply to their academic program and do not exceed the academic program credit limit.
- Credits earned through standardized exams are not resident credits and may not be used to satisfy resident credit requirements for graduation nor do the credits count toward financial aid calculations.
- The list of available standardized and national exams and the number of credits granted at SCC is available on the SCC website at www.southcentral.edu/cpl. Section 1. Specific Exam Procedure:

Subsection a. Advanced Placement Exam (AP)

Advanced Placement is a program of the College Entrance Examination Board through which secondary student's complete college-level courses in high schools that are designated as AP and earn college credits by demonstrating a specified level of performance on AP examinations. The AP examinations, which are scored on a 5-point scale, can be taken by any student who feels prepared by independent study or other preparation as well as by students who complete AP courses. SCC will grant credit for AP examinations according to the following:

- A score of 3 shall be the minimum for credit awards
- AP testing information can be found at www.collegeboard.org/AP

Subsection b. College Level Examination Program (CLEP)

Credits may be awarded through the successful completion of CLEP in the general examinations in composition and literature, history and social sciences, and science and mathematics, provided no previous academic credits have been earned in these areas.

SCC will award credit for the completion of CLEP with a score of 50 or higher with the exception of Level 2 foreign language examinations for which a minimum score of 63 for German language, 62 for French language, and 66 for Spanish language is required.

- To register for a CLEP exam and select a test center near you, visit www.CLEP.Collegeboard.org
- The number of credits granted at SCC is available on the SCC website at www.southcentral.edu/cp

Subsection c. DANTES Subject Standardized Test (DSST)

DSST exams are available to anyone who is seeking college credit outside the traditional classroom, including college students, adult learners, high school students, and military personnel. Credit may be awarded in subject areas such as social sciences, math, applied technology, business, physical sciences, and humanities.

- Students who desire to complete DSST Exams should visit: www.getcollegecredit.com/

Subsection d. Excelsior College Examinations (UExcel)

UExcel Excelsior College Examination Program is a credit by examination program offered in a computer-based format. Credit may be awarded in subject areas such as business, education, humanities, natural sciences & mathematics, nursing, social sciences/history, technology, and business ethics.

- Students who desire to complete UExcel Exams should visit: www.excelsior.edu/exams/

Subsection e. International Baccalaureate (IB)

The International Baccalaureate (IB) program is an internationally recognized program through which secondary students complete a comprehensive curriculum of rigorous study and demonstrate performance on IB examinations. The examination for the diploma covers six subjects, three or four of which must be at the higher level and others at the subsidiary level. Students may present an official IB diploma or a certificate recognizing specific higher level or subsidiary level test scores for consideration.

SCC will grant credit for IB examinations according to the following:

- IB diploma
 - Students who attain an IB diploma will be granted six (6) lower division course credits for scores of 4 or higher on each higher level IB examinations and two (2) lower division course credits for scores of 4 or higher on each standard level IB examination.
- Individual IB examinations.
 - Higher level examinations. A student will receive three (3) or more course credits for scores of 4 or higher on individual higher level IB examinations.
 - Standard level examinations. A student shall receive two (2) or more credits for scores of 4 or higher on individual standard level IB examinations.

- IB testing information can be found at www.ibo.org

Subsection f. New York University Foreign Language Proficiency (NYUFLP)

The NYU School of Professional Studies offers more than 50 different language-testing examinations to evaluate knowledge of a foreign language.

- Students who desire to complete NYUFLP Exams should visit: <http://www.scps.nyu.edu/academics/departments/foreign-languages/testing.html>

Subsection g. National Occupational Competency Testing Institute (NOCTI)

SCC may grant credit to students who have met or exceeded national average scores on the NOCTI assessments for specific skill sets in specific program areas.

- Students are responsible to provide documentation to support their request

Subsection h. Thomas Edison College Examination Program (TECEP)

TECEP® exams are similar to final exams for college courses and are available to adults who have acquired college-level knowledge outside the classroom. Credit may be awarded in subject areas such as English composition, humanities, social sciences, natural sciences/mathematics, business and management, computer science technology, and applied science and technology.

- Students who desire to complete TECEP Exams should visit TECEP at: www.tesu.edu/degree-completion/Testing.cfm

Subpart D. Challenge Exams/Credit by Examination (Test Out)

A Challenge Exam is developed by SCC credentialed faculty in the academic discipline that offers the course. Credit is granted for demonstrated proficiency of course-specific requirements by the student through successful completion of the examination.

- Students may not enroll in the course for which they plan to attempt a Challenge Examination
- A Challenge Examination may not be attempted for a course in which the student is currently enrolled, has previously taken (earned a grade, failed or withdrawn), or has transferred from another institution
- Students are limited to two challenge examination attempts per course. After two unsuccessful examination attempts, students should enroll in the course
- Credits earned through Challenge Examination count toward institutional residency requirements

Subpart E. Individual Assessments

Section 1. Portfolio Assessment

A CPL Portfolio is a collection of information gathered by the student and presented in a systematic format that validates the prior learning.

The assessment of prior learning will be based on the documentation presented. After meeting with the assigned faculty evaluator and agreeing to the portfolio assessment method, expectations, and timeline, the student will submit portfolio materials and any additional documentation requested by the assigned faculty evaluator. Please refer to the portfolio template for assistance with portfolio structure, documentation and writing. If the portfolio is returned for minor revisions, a date of return will be listed on the Evaluator Response Form. Before submitting your portfolio, it is recommended that you make a copy for your own records. Minimum requirements for the content of a portfolio:

- **Cover page:** Include your name, SCC student I.D. number, address, phone number, and e-mail address.
- **Table of contents:** Include an itemized list of documents and corresponding page numbers.
- **Executive summary:** A summary to justify your request and reference your documentation. The summary succinctly links your experiences and learning to the course outcomes.
- **Chronological autobiography:** Prepare an essay that summarizes the significant prior learning in your life, and defines your educational and career goals.
- **Current resume:** Include education, work and volunteer experiences. Detail significant activities, exact dates, accomplishments in the workplace, and other non-work related learning.
- **Course competencies matrix:** Organize, categorize and tie your prior learning experiences directly to the course and the specific course competencies for which credit is being requested. For each course competency identify the documentation you provided and briefly summarize how your prior learning demonstrates achievement of each competency.
- **Learning narrative:** Develop an essay to summarize your prior learning based on the course description and competencies. This narrative is a detailed explanation of how your knowledge applies to the course competencies.
- **Documentation:** Provide verification (evidence) for each learning experience and competency specific to the course.
- **Appendices:** Documentation of additional materials such as references used in citation.
- **Assessment form(s):** Include one form for each course. The portfolio is reviewed by a faculty evaluator who determines whether there is sufficient explanation and documentation to assess learning and award credit.

Section 2. Skill Simulation or Demonstration

A skills demonstration is used to assess a wide range of practical based learning outcomes including applied skills and knowledge, such as laboratory skills, interpersonal skills or oral language skills. Sufficient evidence must be made available from the skills demonstration for verification and authentication of learning.

After meeting with the assigned faculty evaluator and agreeing to the skills demonstration assessment method and expectations, the student and faculty agree to the skill demonstration schedule and parameters for assessment:

- Student receives clear instructions and guidelines on how the assessment will proceed and what will be assessed.
- Necessary equipment and/or materials are made available to the student.
- Student is observed performing tasks required within a specified timeframe.

Section 3. Interview-based Assessment

An interview-based assessment is used to evaluate a wide range of learning outcomes such as interpersonal skills or oral language skills. Sufficient evidence must be made available in the interview for verification and authentication of learning.

After meeting with the assigned faculty evaluator and agreeing to the interview-based assessment method and expectations, the student and faculty agree to the interview schedule and parameters for assessment:

- Student receives clear instructions and guidelines on how the assessment will proceed and what will be assessed.
- Necessary materials are made available to the student.
- Student responds to interview questions in order to demonstrate learning related to course competencies.

Subpart F. Evaluation of Non-College Education and Training

Section 1. ACE Military – Training, Occupations and Other Military Credit

SCC awards applicable credit for validated military service training, experience, or coursework that is recognized by the American Council on Education (ACE) in accordance with Minnesota Statutes §197.775, Subdivision 2, Recognition of Courses. Boot camp, basic training, officer training school, and other courses offered by the military may be eligible for college credit.

The [ACE Guide to the Evaluation of Educational Experience in the Armed Services](#) will be used as the evaluation tool. For further information see [A Transfer Guide: Understanding Your Military Transcript and ACE Credit Recommendations](#) at www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx

To see how your military training may apply to a specific SCC program, visit the [Veterans Education Transfer System \(VETS\)](#) site at www.minnstate.edu/college-search/public/military.

In order to seek credit for military training, complete the following:

- Obtain your military transcript:
 - [Air Force \(CCAF\) transcripts](#) go to www.au.af.mil/au/barnes/ccaf/transcripts.asp
 - [Army, Navy, Marine Corps, Coast Guard - Joint Services Transcript \(JST\)](#) go to jst.doded.mil/
- If military transcripts are unavailable, you may submit DD Form 214 (Certificate of Release or Discharge from Active Duty) in addition to Military Occupational Specialty (MOS) and copies of non-commissioned officer enlisted evaluations
- Submit your military transcript(s) and, if needed, supplemental materials to SCC's CPL Coordinator at CPL@southcentral.edu

Section 2. ACE CREDIT – Education, Workplace and Training

The American Council on Education (ACE) College Credit Recommendation Service helps adults gain access to academic credit for formal courses and examinations taken outside traditional academic programs.

To find out if an organization or company you've trained with has a recommended credit award, visit the [ACE Guide](#) at www2.acenet.edu/credit/?fuseaction=browse.main. This guide will give you the credit equivalence that you can use to discuss earning credit with SCC's CPL Coordinator.

In order to seek credit for ACE recommended education, workplace and training, complete the following:

- Have an official ACE transcript sent directly to South Central College, Attn: CPL Coordinator; 1920 Lee Boulevard, North Mankato, MN 56003.
- To request an ACE transcript go to www2.acenet.edu/credit/?fuseaction=transcripts.main##

Section 3. NCCRS Workplace and Volunteer Training

NCCRS (National College Credit Recommendation Service) evaluates training and education programs that are offered outside of the traditional college classroom setting and translates them into college credit equivalency recommendations.

In order to seek credit for NCCRS Workplace and Volunteer Training Credit complete the following:

- Have an official transcript from the NCCRS official transcript source sent directly to South Central College, Attn: CPL Coordinator; 1920 Lee Boulevard, North Mankato, MN 56003.
- To request a NCCRS transcript go to www.nationalccrs.org

Section 4. Technical or Professional Certification/Credential

A certification is a designation earned by a person ensuring the individual is qualified to perform a task or job. Certification is often an employment qualification but not a legal requirement for that profession and can be earned through classes or tests. If you have earned any certifications or industry recognized credentials that align with SCC's programs you may be able to earn college credit.

The following conditions apply:

- Certifications and industry credentials will be checked for validity through the issuing body
- Certification/Industry Credential may need to be verified through demonstration of continuation of the knowledge and skill required
- Certification/ Industry Credentials must be current as of the last day of the awarding semester
- Faculty may award credit for multiple courses, dependent upon the content of the Certification/ Industry Credential

In order to seek credit for Technical or a Professional Certification or Industry Credentials complete the following:

- Provide official documentation of current certification or industry credential(s)

Section 5. Technical or Professional Apprenticeship

Students who have completed or are currently enrolled in a Technical or Professional Apprenticeship Program that aligns with an SCC program may be eligible to earn college credit.

The following conditions apply:

- Technical or Professional Apprenticeship will be checked for validity
- Apprenticeship knowledge and skill may need to be verified through demonstration
- Faculty may award credit for multiple courses, dependent upon the content of the Technical or Professional Apprenticeship

In order to seek credit for a Technical or Professional Apprenticeship complete the following: Provide official documentation of the Technical or Professional Apprenticeship.

Documentation must include:

- Occupation and the total hours completed for the apprenticeship
- Processes learned in the apprenticeship and the hours spent at each process
- Number of hours spent by the apprentice in related and supplemental instruction
- Journeyman certificate if applicable
- Employer contact information for validation

Section 6. Technical or Professional Licensure

Licensure is a means by which "permission to practice" is regulated and is a qualification required by law. If you have earned a Technical or Professional Licensure that aligns with SCC's programs, you may be able to earn college credit.

The following conditions apply:

- Licensure will be checked for validity
- Licensure may need to be verified through demonstration of continuation of the knowledge and skill required
- Licensure must be current as of the last day of the awarding semester
- Faculty may award credit for multiple courses, dependent upon the content of the licensure

In order to seek credits for a Professional Licensure complete the following:

- Provide official documentation of the Licensure
- Provide contact information for the issuing organization

Section 7. Badges

A badge is an online representation of a skill, mastery of skill and/or recognition of expertise, as well as verification of a technical competence through projects, programs, courses, assessments, and other activities. Badges enable academic institutions and professional associations to recognize professional and experimental learning achievement in a way that can be verified and shared online.

If you have earned a Badge(s) that aligns with SCC's programs you may be able to earn college credit.

The following conditions apply:

- Badges will be checked for validity
- Badges may need to be verified through demonstration of the knowledge and skill acquired

In order to seek credits for a Badge(s) complete the following:

- Provide evidence of each Badge
- Provide criteria for earning each badge from the issuing organization
- Provide contact information for the issuing organization

Subpart G. Other

Section 1. Minnesota Articulated College Credit (Tech Prep)

CTECreditMN is a consortium of high schools and colleges who work together to provide students a pathway from high school to college. Students may earn college credits (Articulated College Credit) for high school courses completed in 10, 11, 12 grades.

Visit www.ctecreditmn.com/schools.php to see what high schools and colleges are participating in Minnesota Articulated College Credit. In order to seek credits for a Minnesota Articulated College Credit complete the following:

- Student must be admitted and enrolled in SCC
- Provide a valid articulated college credit record which lists South Central College

Section 2. Assessment of previous education includes, but is not limited to, non-equivalent and/or non- transferrable education, hour-based, expired credits, and discontinued programs.

The following conditions apply:

- Knowledge and skill may need to be verified for currency and/or relevancy
- Student may be required to provide additional information as per program faculty request

Evidence of prior learning that does not fit within the other categories but aligns with a SCC Program.

Subpart H. Fee Schedule

SCC will charge a student fee for the evaluation of prior learning according to the annually established fee schedule.

In accordance with Minnesota legislation and System Procedure 5.11.1 Tuition and Fees, Part 5, Subpart B., “A fee shall not be charged for analysis and awarding of credit for training delivered by the United States military.”

Subpart I. CPL Transcription

SCC shall record the credit earned through Credit for Prior Learning on the official student transcript in compliance with Minnesota State Board Policy 3.29 and Procedure 3.29.1, College and University Transcripts.

When equivalent credit is awarded through Credit for Prior Learning, a letter grade will be recorded for each CPL credit course per SCC Grading and Grade Change Policy consistent with the current grading method for the course. CPL credits that apply as residential credit will be recorded the same as any other SCC resident credit.

Documentation will be maintained on file for each CPL assessment. Such documentation will provide evidence of expected learning outcomes, assessment method(s) used, and standards for award of credit.

Subpart J. Transparency and Information Dissemination

Section 1. Transparency:

- Requests should be directed to the Credit for Prior Learning Coordinator in the Student Affairs Office.
- The www.southcentral.edu/cpl website will include links to CPL forms, minimum standardized test score information, orientation information, self-assessment checklist, list of courses eligible for CPL, fee information by CPL method, sample portfolio templates and more.

Section 2. Information Dissemination

SCC shall provide timely and readily accessible information to prospective and admitted students regarding opportunities for CPL in official publications, such as the college catalog, www.southcentral.edu/cpl web site, through advisors, faculty, advising materials and at SCC events such as orientation.

Subpart K. Transferability of Credit for Prior Learning Credits

South Central College does not guarantee that another college or university will accept CPL credit in transfer. Students planning to transfer to a college or university should contact the receiving institution to determine the acceptability of transferring CPL.

Subpart L. Faculty and Staff Development

Personnel involved in CPL will receive preparation for engagement with the institution’s CPL Program Policies and Procedures. Professional development will include benefits, opportunities, assessment tools, and associated processes of SCC credit for prior

learning.

Subpart M. Data Tracking and Reporting

SCC will track and report CPL credits by category and method. The benefits of CPL and its relationship to student persistence, degree completion, and time to degree will be evaluated. Credit awarded for CPL will be coded indicating the category and method of prior learning assessment used with the following codes:

SNE = Standardized/National Exams (e.g. AP, CLEP, IB)

CE = Challenge Exam/Credit by Examination (i.e. Test Out)

IA = Individual Assessment (i.e. Portfolio, Skill Simulation, Interview) NET = Non-College Education and Training (e.g. Military, ACE, Industry Credential) O = Other (e.g. Tech Prep, Previous SCC Education)

Subpart N. Procedure Review

This procedure will be reviewed and modified as appropriate through the Academic Affairs and Standards Council process.

List of Related Policies or Procedures

3.35 Credit for Prior Learning policy (System)

3.35.01 Credit for Prior Learning - External Assessments procedure (System)

3.35.02 Credit for Prior Learning – Internal College/University Assessments (System)

3.35.03 Military Courses and Military Occupations procedure (System)

5.11 Tuition and Fees policy (System)

5.11.01 Tuition and Fees procedure (System)

3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum policy (System)

3.21.01 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum procedure (System)

3.29 College and University Transcripts policy (System)

3.29.01 College and University Transcripts procedure (System)

3.36 Academic Programs policy (System)

3.36.01 Academic Programs procedure (System)

3.0005 Grading policy

3.0005.0001 Grading procedure

Date of last review: 4/9/2020

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Credit Hour Policy #3.2902

Purpose/Authority

The purpose of this policy is to establish an acceptable limit for credits to apply toward degree requirements.

Scope/Applicability

Program exceptions to this policy may be requested by a program faculty and be approved by Academic Affairs and Standards Council (AASC).

Major Sections:

- **Liberal Arts & Sciences credits** shall have an indefinite life span; however, there may be a restricted time frame on specific Liberal Arts courses in specific academic programs.
- **Technical credits** shall have a life span of 5 years from the time the course was completed. Exceptions to this policy may be requested and must be approved by the program advisor and Academic Dean.

Date of Last Review: 4/20/2018

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Credit Life Span Policy #3.2901

Purpose

The purpose of this policy is to establish an acceptable limit for credits to apply toward degree requirements.

Scope/Applicability

Program exceptions to this policy may be requested by a program faculty and be approved by Academic Affairs and Standards Council (AASC).

Major Sections

- **Arts & Sciences credits** shall have an indefinite life span; however, there may be a restricted timeframe on specific Arts & Sciences courses in specific academic programs.
- **Technical credits** shall have a life span of five (5) years from the time the course was completed. Exceptions to this policy may be requested and must be approved by the program advisor and Academic Dean.

Date of Last Review: 2/2/21

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Crime Victims' Rights

Purpose: Crime victims have certain rights by law.

Applicability:

Please contact the Affirmative Action Officer at 507-389-7219 for additional resources or contact:

The Minnesota Crime Victims Reparations Board:

The Minnesota Crime Victims Reparations board helps crime victims with some of their financial losses. To pick up a brochure explaining their services, go to your counselor or the human rights officer on your campus. You can also write to: Crime Victims Reparations Board - 444 Cedar Street Town Square, Suite 100C - St. Paul, MN 55101 - or call toll free: 1-800-247-0390

The Office of Crime Victims Ombudsman:

The Office of Crime Victims Ombudsman offers assistance to crime victims who feel that their rights have been violated, or who feel they have been treated unfairly by the criminal justice system or by victim assistance programs. Anyone wishing further information, or those who feel that their rights have been violated, should contact the Office of Crime Victims Ombudsman at: Toll free: 1-800-247-0390

Criminal Offenses

SCC monitors and records, through local police agencies, criminal activities in which students in student organizations are engaged in activities at off-campus locations. Additionally, the SCC Security Director compiles campus reports of criminal offenses. These offenses are compiled using the Uniform Crime Reporting procedures in accordance with the provisions of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. These records include offenses that were reported to SCC Administration and other College officials who have significant responsibilities for student and campus activities.

Campus Report of Criminal Activity

The categories and number of items on the report are alleged criminal activities and do not necessarily constitute an arrest of conviction, and are only an allegation of wrongdoing.

The campus report of criminal activity can be viewed at: <http://ope.ed.gov/security>

A complete report of all criminal offenses may be obtained by request through the South Central College Security Director Al Kluever via email at al.kluever@southcentral.edu or via phone at (507) 389-7412.

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Data Privacy

Information Collection

When you apply for admission, while you are enrolled, and after graduation you will be asked to supply information about yourself, including your social security number. You will be asked to report information in the following ways:

- Admission Application
- Enrollment Form
- Financial Aid Application
- Assessment Testing Information
- Placement and Employment Follow-Up Information Forms
- Oral Interviews with College Staff
- Health, Immunization Records
- You have the right to know and to view all public and private data maintained regarding you.
- You have the right to have the data explained to you and receive a copy of it.
- You have the right to challenge the accuracy and completeness of the data and to include your own explanation of the data.

Consequences

There are consequences for not supplying data which may result in denial of the following services:

- You may not be admitted for enrollment if you do not complete the admissions application (except social security number).
- You may not receive academic accommodation if you do not verify your disability based on a recent psychological or medical evaluation.
- You may not receive financial aid assistance if you do not provide information on the financial aid form.
- You may not continue in college if you do not comply with immunization information as required by law.

Students Rights, Responsibilities and Authorizations for the Collection and Release of Data

South Central College maintains records about you in various places within the institution. For example, the admissions office maintains records about you, as does the registrar. Under federal and state law, you have certain rights concerning the records which SCC maintains.

Should you have questions concerning your rights, please contact Student Affairs Center at 507 389-7220.

Under the Minnesota Government Data Practices Act (MGDPA) and the Family and Educational Rights Privacy Act (FERPA), you have a right:

- To inspect and review educational records maintained about you;
- To request an amendment to records about you for the purpose of correcting inaccurate or misleading records, or records which violate your privacy or other rights in some fashion;
- To a hearing regarding records which you believe are inaccurate or misleading, if the College does not amend the records at your request;
- To place a written statement explaining your disagreement with SCC in your records, if SCC does not amend records after the opportunity for a hearing about whether the records are inaccurate or misleading;
- To consent to disclosures of information which identifies you personally, except to the extent that such disclosures are allowed without your consent under state and federal law (FERPA and the MGDPA permit disclosures without consent to school officials with legitimate educational interests. A school official is a person employed by SCC in an administrative, supervisory, academic or support staff position, a person or company with whom SCC has contracted, a student serving on official SCC committees, a person serving on the Board of Trustees or in the Office of the Chancellor, or assisting another school official in performing his or her tasks. A school official has legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.);
 - To file a complaint with the United States Department of Education if you believe that SCC is not meeting the requirements of the federal law. Written complaints should be sent to: Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue, SW, Washington, DC 20202-4605.

Directory Information

Directory information including name, program major, dates of attendance, honors and student status (enrolled, graduated, graduation

date, withdrew, part-time, full-time) may be released to the public without prior consent. If you wish to exercise your right to suppress the release of directory information please fill out a Data Privacy Request form and submit to the Advising & Registration Center.

Limited Directory Information

Limited Directory information includes permanent and local addresses, home and cell phone numbers, SCC and permanent email addresses, STAR ID student ID number, and date of birth.

Physical and email address, phone numbers, date of birth, STAR and student ID's are approved for use in the Aviso Retention Connect student engagement software.

Email address and STAR ID are approved for use in the Office 365 Global Address list.

Note that full functionality of Aviso Retention Connect and Office 365 may not be available when Limited Directory Data are suppressed.

Tennessee Warning (M.S. 13.04, SUBD.2.)

With the exception of directory information, all data of a public, private or confidential nature that you are requested to supply to the College is for the sole use of the College to be used in performing administrative, managerial, counseling and reporting functions.

A student may refuse to supply requested data, but such refusal may result in ineligibility for specific rights or services.

The College will release student data without student permission only to those agencies, persons and organizations authorized by federal and state statute to receive such information. Under certain circumstances, federal and state laws authorize release of private information without your consent:

- to other schools in which you seek or intend to enroll, or are enrolled, if you are first notified of the release;
- to federal, state or local officials for purposes of program compliance, audit or evaluation;
- as appropriate in connection with your application for, or receipt of, financial aid;
- to your parents, if your parents claim you as a dependent student for tax purposes;
- if the information is sought with a subpoena, court order, or otherwise permitted by other state or federal law, and
- to an organization engaged in educational research or accrediting agency.

FERPA Annual Notice

The College/University maintains records about you in various places within the institution. For example, the admissions office maintains records about you, as does the registrar. Under federal and state law, you have certain rights concerning the records which the College/University maintains. This notice is to make you aware of those rights.

Should you have questions concerning your rights, please contact Student Affairs Center at 507 389-7220.

Under the Minnesota Government Data Practices Act (MGDPA) and the Family and Educational Rights Privacy Act (FERPA), you have a right:

- to inspect and review educational records maintained about you;
- to request an amendment to records about you for the purpose of correcting inaccurate, incomplete or misleading records; and
- to a hearing regarding your request, if the College/University does not amend the records at your request;
- to place a written statement explaining your disagreement with the College/University in your records, if the College/University does not amend records after the opportunity for a hearing about whether the records are inaccurate, incomplete or misleading;
- to consent to disclosures of information which identify you personally, except to the extent that such disclosures are allowed without your consent under state and federal law;

For example, FERPA and the MGDPA permit disclosures without consent to school officials with legitimate educational interests. A school official is a person employed by the College/University in an administrative, supervisory, academic or support staff position, a person or company with whom the College/University has contracted, a student serving on official College/University committees, a person serving on the Board of Trustees or in the Office of the Chancellor, or assisting another school official in performing his or her tasks. A school official has legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Notice: If you are currently enrolled in or receiving services from one college or university within the Minnesota State College and University System ("System"), your academic records from that institution are available to officials of other schools within the System while you are in attendance. If you seek or intend to enroll at another institution within the System, your academic records from other institutions are also accessible to officials at the school where you are seeking or intend to enroll. SCC forwards education records to other agencies or institutions that have requested the records and in which the student seeks or intends to or is already enrolled as long as the disclosure is for purposes related to student's enrollment or transfer. Disclosures of your records to other schools under other circumstances may require your prior written consent.

You have the right to request a copy of records that have been disclosed. You also have the right to request a hearing to correct any inaccurate, incomplete, or misleading information in those disclosed records. For further information about your rights, please contact the Registrar at the college or university that supplied the records."

- to file a complaint with the United States Department of Education if you believe that the College/University is not meeting the requirements of the federal law. Written complaints should be sent to: Family Policy Compliance Office, U.S. Dept. of Education, 600 Independence Avenue S.W., Washington, D.C. 20202-4605;

- to obtain a copy of the College/University's complete policy regarding educational records. The College/University has copies of the policy available at: southcentral.edu.

[Authorization to Release Student Information](#)

Related Policies

- Data Governance Policy # 5.2601
- Data Governance Procedure #5.2601.0001
- Information Available to the Public Policy #2.0002

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Degree Requirements

Undergraduate certificate. An undergraduate certificate is awarded upon completion of a 9 to 30 credit academic program. An undergraduate certificate program may have an occupational outcome or address a focused area of study. At least one-third of the credits in the undergraduate certificate shall be taught by the faculty recommending the award.

Diploma. A diploma is awarded upon completion of a 31 to 72 credit undergraduate academic program that prepares students for employment. A minimum of 24 credits shall be in occupational or technical courses. A diploma may have one or more emphases of at least 9 credits when there are at least 30 credits in the major that are common to the emphases. At least one-third of the credits in the diploma shall be taught by the faculty recommending the award.

Associate in applied science degree. (AAS) An associate in applied science degree is awarded upon completion of a 60 to 72 credit academic program in a named field of study in scientific, technological or other professional fields.

An associate in applied science degree prepares students for employment in an occupation or range of occupations. An associate in applied science degree may also be accepted in transfer to a related baccalaureate program.

An associate in applied science degree requires a minimum of 15 general education credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum. At least 30 credits shall be in the academic program's occupational or technical field of preparation.

An associate in applied science degree may have one or more emphases of at least 9 credits each when there are at least 30 credits in the major that are common to the emphases.

At least 20 credits in an associate in applied science shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the college or university.

Associate in arts degree. (AA) An associate in arts degree is awarded upon completion of a 60 to 64 credit program in the liberal arts and sciences without a named field of study. It is designed for transfer to baccalaureate degree-granting institutions.

The degree requires completion of at least a 40 credit general education curriculum that fulfills the Minnesota Transfer Curriculum goal areas. At least 20 credits in the associate in arts degree shall be taught by the faculty recommending the award.

Associate in science degree. (AS) An associate in science degree shall not have emphases. An associate in science degree is awarded upon completion of a 60 to 64 credit transfer program in scientific, technological, or other professional fields designed to transfer in its entirety to a related baccalaureate program by way of an articulation agreement. The associate in science degree requires a minimum of 30 general education credits selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum. At least 20 credits in an associate in science degree shall be taught by the faculty recommending the award. This requirement may be decreased upon recommendation of the faculty and approval by the president of the college or university.

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Education Abroad Policy #3.4101

Policy Statement

Recognizing that faculty, staff, and students must possess cultural and global competence, South Central College (SCC) is dedicated to providing academic and experiential international opportunities. International experiences introduce the historical and cultural significance of global countries; expand understanding of global approaches to learning and living; and may develop skills in another language.

Purpose/Authority

Recognizing that faculty, staff, and students must possess cultural and global competence, South Central College (SCC) is dedicated to providing academic and experiential international opportunities. International experiences introduce the historical and cultural significance of global countries; expand understanding of global approaches to learning and living; and may develop skills in another language. These experiences may include tours, field trips, and exchange programs for students, faculty, and staff; classes taught abroad; service learning/civic engagement projects; or other international experiences through education.

Scope/Applicability

Students and Participants

Definitions

Education Abroad – An international education option designed to increase global and cultural competence that may result in academic credit. This experience may include faculty, staff, students, alumni, and community members.

Faculty-Led Programs – A credit-based Education Abroad program, in which a South Central College (SCC) faculty member arranges travel, develops itinerary, organizes tours, and may lead service projects in addition to course instruction.

Third Party Provider – The College (SCC) contracts a vendor that arranges travel, develops itinerary, organizes tours, and leads service projects. The vendor may be another college or university, a nonprofit organization, a for-profit business, or a consortium that offers Education Abroad services.

Cultural Exchange – A faculty or staff led cultural experience to/from an international partner institution with whom SCC has signed a reciprocal agreement (Memorandum of Understanding). Typically, students are integrated with host country students.

Student Exchange – Designed to be a reciprocal exchange of students from one institution to another, with a signed reciprocal agreement (Memorandum of Understanding) between the institutions. Typically, students are integrated with host country students.

Other International Experiences – A non-SCC sponsored, student-initiated international opportunity such as participation in a credit-bearing course that SCC may accept in transfer.

Major Sections

Guiding Principles

- **Student Learning and Development:** All SCC education abroad programs will provide opportunity for student learning and development.
- **Prepare for the Education Abroad Environment:** SCC, the faculty or staff, and program providers ensure that students are appropriately prepared for their education abroad experience and that students can identify and articulate appropriate and inappropriate activities while participating in Education Abroad.
- **Organizational and Program Resources:** Education Abroad programs have adequate financial, human, and facility resources to provide a positive learning environment for students.

- **Health, Safety, and Security:** SCC will prioritize health, safety, and security in program development, implementation, and management of education abroad. SCC, the faculty, and program providers will establish and confirm clear expectations regarding the health, safety, and security of program participants.
- **Conflicts of Interest:** A potential conflict of interest exists when personal or institutional interests, whether financial or non-financial, may be seen as competing with the best interests of SCC degree-seeking students or inconsistent with best professional practices.
- **Transparency:** SCC will disclose all aspects of program development; partnership agreements; criteria for program approval and recommendation; eligibility and permission for education abroad; physical demands of the trip; applications; admission; student selection; fees; financial aid; refund policies, academic requirements, grading, and credit policies; applicable codes of conduct; petition and appeals processes; and grievance procedures.

Standards

- Specific learning outcomes will be clearly stated for each SCC Education Abroad Program.
- An evaluation will be conducted upon completion of each Education Abroad program to assess participant learning and personal development and to provide feedback on the overall experience.
- Education Abroad program recruitment and selection processes will be fair, ethical, and transparent.
- Students will be prepared for Education Abroad experiences, with pre-departure and on-site orientations that equip them to responsibly manage their own health, safety, and security.
- Each Education Abroad program will provide clear expectations for student conduct and the resulting consequences for violations. Participants will comply with all federal, state, and local laws applicable in the host country.
- SCC will annually report to the Minnesota Office of Higher Education all required education abroad information pursuant to Minnesota Statutes § 5.41.
- To ensure participant health, safety, and security, SCC will conduct appropriate risk assessments prior to and during the travel period with consideration to the U.S. Department of State Travel Warnings. Written emergency plans and protocols will be maintained.
- Only SCC employees who have been granted the appropriate delegation of authority will approve Education Abroad programs. All Education Abroad program participants must be pre-approved for international travel.
- SCC will have a process for approval, evaluation, and quality improvement of the Education Abroad programs.

Procedures and Practices

- Procedures and practices pursuant to this policy shall be developed, maintained, and publicized and be consistent with this policy and Minnesota State Board Policy 3.41 and Procedure 3.41.1 Education Abroad Programs.
- SCC shall submit education abroad student data in compliance with Minnesota Statutes § 5.41 Study Abroad Programs.
- SCC will retain sufficient documentation to demonstrate that: faculty or staff participated in training for leading education abroad programs; students participated in pre-departure and on-site orientations; students purchased required international accident and illness travel insurance; and program evaluations have been completed.
- SCC will provide accessible and timely information to prospective and admitted students regarding Education Abroad opportunities.
- Personnel involved in Education Abroad will receive training on the college's Education Abroad Policies and Procedures.
- This policy will be reviewed and modified as appropriate through the Academic Affairs and Standards Council process.

Criteria

- All participants must be at least 18 years of age before the Education Abroad experience begins.
- Postsecondary Enrollment Options (PSEO) students are ineligible for Education Abroad travel experiences.
- For Education Abroad experiences that may result in SCC academic credit, all participants must be enrolled in the identified course.
- Only students whose accounts are paid in full will be eligible to participate in Education Abroad experiences.

List of related policies or procedures:

- 3.41 Education Abroad Programs policy (System)
- 3.41.1 Education Abroad Programs procedure (System)
- 1B.01 Equal Opportunity and Nondiscrimination in Employment and Education policy (System)
- 1B.01.01 Report/Complaint of Discrimination/ Harassment Investigation and Resolution procedure (System)
- 1B.03 Sexual Violence policy (System)
- 1B.03.01 Response to Sexual Violence and Title IX Sexual Harassment procedure (System)
- 1B.04 Access and Accommodation for Individuals with Disabilities policy (System)
- 1C.00.01 Employee Code of Conduct procedure (System)
- 4.00.01 Use of Volunteers procedure (System)
- 5.14.02 Consultant, Professional or Technical Services, and Income Contracts procedure (System)
- 5.18 Alcoholic Beverages or Controlled Substances on Campus policy (System)
- 5.18.01 Alcohol Use and Controlled Substances on Campus procedure (System)
- 5.19.03 Travel Management procedure (System)
- [Minnesota State Office of Higher Education](#)
- [Minnesota Statutes § 5.41 Study Abroad Programs](#)

Date of Last Review: 04/08/2021

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Education Abroad Procedure #3.4101.0001

Purpose Statement

This procedure is issued pursuant to the Minnesota State College and University Board Policy 3.41 (Education Abroad Programs Policy) and Procedure 3.41.1 (Education Abroad Programs Procedure).

Scope/Applicability

Students and Participants

Definitions

Education Abroad – An international education option designed to increase global and cultural competence that may result in academic credit. This experience may include faculty, staff, students, alumni, and community members.

Faculty Led Programs – A credit-based Education Abroad program, in which a South Central College (SCC) faculty member arranges travel, develops itinerary, organizes tours, and may lead service projects in addition to course instruction.

Third Party Provider – The College (SCC) contracts a vendor that arranges travel, develops itinerary, organizes tours, and leads service projects. The vendor may be another college or university, a nonprofit organization, a for-profit business, or a consortium that offers Education Abroad services.

Cultural Exchange – A faculty or staff led cultural experience to/from an international partner institution with whom SCC has signed a reciprocal agreement (Memorandum of Understanding). Typically, students are integrated with host country students.

Student Exchange – Designed to be a reciprocal exchange of students from one institution to another, with a signed reciprocal agreement (Memorandum of Understanding) between the institutions. Typically, students are integrated with host country students.

Other International Experiences – A non-SCC sponsored, student-initiated international opportunity such as participation in a credit-bearing course that SCC may accept in transfer.

Procedures:

Subpart A. Student/Participant Requirements

Participants of all Education Abroad programs must be over 18 years old, must be in good academic standing (if applicable), must be in good financial standing with the college and must be enrolled in the course for credit-based Education Abroad programs.

- All participants must be at least 18 years of age before the Education Abroad experience begins.
- Students who are not in good academic standing or who are on disciplinary probation may not participate in Education Abroad programs unless approved through the appeal process.
- Only students whose accounts are paid in full will be eligible to participate in Education Abroad experiences.
- Postsecondary Enrollment Options (PSEO) students are ineligible for Education Abroad travel experiences.
- For Education Abroad experiences that may result in SCC academic credit, all selected participants must enroll in the identified course.
- Students who are not U.S. citizens may participate in Education Abroad programs with the prior approval of the college.
- Participants may be subject to a background check.

Subpart B. Selection Criteria

- A minimum Grade Point Average (GPA) of 2.0.
- Students/Participants must complete an application and receive approval. Incomplete applications will not be considered. Preferential treatment will be given to degree seeking students.
- Personal preparedness may be determined through an interview process.

Subpart C. Program Fees and Billing

- A refundable application fee is required with all SCC Education Abroad applications. The application fee will be applied to trip expenses for successful applicants and refunded to those not selected to participate.
- Students/Participants pay SCC tuition and, in most cases, a program fee that may include host costs for tuition, room, and meal plan on site (when relevant). Except in rare cases, the program fee does not cover the cost of transportation (airfare) to the program site.
- Specific program deposits must be paid at the time of acceptance into the program. Deposits are applied to the cost of the program. Participants are billed the full program cost via their student account. The student/participant must pay all tuition, fees, and travel expenses before the stated deadline and prior to date of departure.
- Application fees and program deposits must be paid directly to SCC by the participant one week after the participant is selected into the program. These costs may be due in advance of the usual financial aid disbursement schedule.
- Financial aid applies towards SCC approved Education Abroad programs. Students may request a budget adjustment from SCC Financial Aid Office for additional costs of an off-campus SCC approved Education Abroad program.
- When available and appropriate, Foundation funds may be used to subsidize participant travel. The Education Abroad lead will inform participants of internal and/or external financial support that may be available.

Subpart D. Cancellations and Refunds

- Student/Participant initiated cancellations for Education Abroad programs must be submitted in writing to the program faculty or staff.
- SCC administration reserves the right to cancel a program at any time. Students/Participants may apply their deposit toward the cost of another Education Abroad program or course that is still accepting applicants; or they may choose to have their program deposit refunded.
- The estimated program cost range is based on minimum and maximum number of participants who may be accepted into the program. Program costs are the most accurate estimates possible, but they are subject to change. Participants will not have an option to cancel their participation in the program due to an adjustment in cost.
- Participants who have been accepted into an Education Abroad program and have paid the deposit are financially committed to the Education Abroad experience. Those who decide not to participate within 90 days of departure will forfeit the deposit and will be responsible for all unrecoverable payments made on their behalf. This also applies to cancellation due to medical issues.
- SCC students who withdraw from the College are subject to all unrecoverable payments that have been expended on their behalf.
- Should an unavoidable event result in the cancellation of an Education Abroad program *before* commencement, *recoverable* costs paid by SCC on behalf of the Student/Participant will be refunded. In the event the College cancels a program, 100% reimbursement cannot be guaranteed. Examples of unavoidable events include, but are not limited to, epidemic, civil unrest, threat of terrorist activity, medical pandemic, or other unforeseen occurrence.
- Should an unavoidable event result in removal of participants from the program site *after* program commencement, every effort will be made to ensure program continuity at a safe location. Refunds will not be issued.
- Should a State Department Travel Warning be issued for a country *after* participants have been accepted into the program in that country, and before they leave the U.S., and the College decides to cancel the program, all recoverable costs paid by SCC on behalf of the participant prior to that time will be refunded.
- We strongly encourage participants to purchase travel cancellation insurance as soon as they are accepted into the Education Abroad program.
- In the event of an Education Abroad course cancellation involving a third party provider, SCC will inform Students/Participants of the course cancellation and that SCC is no longer affiliated with the experience.
- Any student who receives financial aid funds who then withdraws from an Education Abroad program will be subject to the Return to Title IV and the SCC refund policies.

Subpart E. Program Approval and Pre-Departure Requirements

Proposal Approval

Before any Education Abroad promotional activities occur:

1. The faculty or staff leader will secure and provide documented support from their department/division supervisor (e.g. letter/email of support).
2. All leaders proposing an Education Abroad program will meet with the Vice President of Academic and Student Affairs minimally one year in advance to request approval.
3. The Education Abroad proposal should include the following:
 - Education Abroad program description;
 - Common course outline for credit courses or learning outcomes for cultural exchange programs and assessment measures;
 - Tentative itinerary outline including program length;
 - Timeline (tentative travel dates, trip registration deadline, minimum numbers, orientation dates, deposit and payment dates, refund and cancellation dates, etc.);
 - Comprehensive transportation plans (including abroad);
 - Housing arrangements;
 - Budget including estimated participant and college costs;
 - Plan for communicating with campus personnel (program leader should secure an international phone plan for emergencies and share the number with participants, participant emergency contacts, and the Vice President of Academic and Student Affairs);
 - A health, safety and security assessment for travel destinations;
 - A list of recreational or service activities, if applicable;
 - Information on coordinating institutions or anticipated vendors, if applicable;

- Names and identities of travel leaders and associated contingency plans if travel leader(s) cannot participate (ratio of faculty/staff to the number of participants should ensure appropriate guidance and safety);
 - Cancellation policy and deadlines including information on participant-initiated, college-initiated, and third party initiated cancellations. Participant-initiated withdrawal must include implications for financial aid, as well as any applicable financial penalties and program costs;
 - A sample promotional brochure or communication that includes notice of health and safety information available through the Office of Higher Education;
 - An emergency plan, including a plan for communications with the appropriate parties (participants, participants emergency contacts, SCC contact, etc.), in situations where an in-progress program needs to be terminated;
 - If using a third party provider, a copy of the college and instructor agreements.
4. The leader must seek review and approval by the Internationalization Committee. Education Abroad experiences that may result in SCC academic credit must also be reviewed and approved by the Academic Affairs and Standards Council for curriculum approval.
 5. The Internationalization Committee chair shall consult with system office risk management and legal counsel as appropriate. Requests for travel to a country that is under a U.S. Department of State Travel Warning must additionally be approved by the chancellor or his/her designee.
 6. The leader must meet with the Vice President of Finance and Operations for budget approval, secure a method for participant payment, establish an Education Abroad program cost center, and determine if a cash advance and/or college credit card is appropriate for the specific location.
 7. College employees must obtain presidential authorization by completing the South Central College Authorization for Travel Form prior to any promotional activities.
 8. Each Internationalization Committee member must complete training on international travel (based on The Forum on Education Abroad Standards of Good Practice) prior to approving any Education Abroad program. The committee membership shall minimally include representatives from academic affairs, student affairs, and two faculty members.

Pre-Travel Training

1. **Health and Safety Training.** All leaders of Education Abroad programs must participate in and document their participation in a pre-travel health and safety-training program. Training will include the following Minnesota State and SCC policies, procedures, protocols and practices:
 - SCC Education Abroad lead resource site;
 - Pre-departure and onsite orientation outlines and packets;
 - ADA compliance;
 - Approval forms for Student/Participant International Travel;
 - Board Policy 5.14 Contracts and Procurement Training;
 - Emergency Response Plan Documentation;
 - Immunizations;
 - Health Insurance availability;
 - Minnesota State Employee Acknowledgment of International Travel Risks and Responsibilities Form;
 - Minnesota State Procedure 5.18.1 Alcohol Use and Controlled Substances on Campus Training;
 - Minnesota State Procedure 1C.0.1 Employee Code of Conduct Training;
 - Minnesota State Procedure 5.19.3 Travel Management Training;
 - U.S. Department of State Travel Advisory Procedure;
 - Performing and monitoring review (include frequency of review);
 - Third party Providers;
 - Presidential approval;
 - Minnesota State 3.1 Student Rights and Responsibilities Training;
 - Emergency Campus Contact Protocol;
 - Federal and state health and safety reporting requirements (Minnesota Statutes 5.41, Clery Act 20 U.S.C. § 1092 (f));
 - Student acknowledgement and agreement form;
 - Risk Assessment for sites and activities:
 - Health Issues (request disclosure of hospitalizations and deaths related to participation in Education Abroad programs)
 - Log Review
 - Transportation
 - Crime

Participant Documentation

After a participant has been accepted into an Education Abroad program, the following documentation must be collected and provided to the Vice President of Academic and Student Affairs a minimum of eight (8) weeks prior to departure:

- Approved South Central College Authorization to Travel Form;
- A copy of a valid U.S. passport with at least 6 months remaining validity beyond the final program date (copies of passport/passport card and driver's license will be kept on file);
- A copy of a valid Visas (if applicable);
- Proof of required immunizations;
- Proof of HTH Study Abroad Health and Accident insurance (copy of card will be kept on file). All participants (including faculty and staff) must be enrolled in Education Abroad insurance for all dates of travel.

- Policy information, including insurance provider and policy number, must be provided. Insurance should include:
 - Hospitalization abroad;
 - Clinic/out-patient coverage abroad;
 - Mental health coverage abroad;
 - Emergency medical evacuation;
 - Emergency evacuation of group in event of political or natural disaster;
 - Repatriation of remains in the event of a death abroad.
- Emergency contact information (designated individual not traveling on the program) to be contacted in the event of an emergency);
- Disclosure of known medical conditions including active medical prescriptions information (can only ask for voluntary disclosure);
- Disclosure of any disabilities and/or request for accommodations; records related to requests for reasonable accommodations will be retained in accordance with campus procedures;
- Copy of registration for the U.S. Department of State Smart Traveler Enrollment Program (STEP);
- Statement of Responsibility and Assumption of Risk: All participants must sign a waiver of liability and assumption of risk document;
- Signed Code of Conduct Agreement: All participants must sign an Education Abroad code of conduct agreement that specifies terms and conditions of travel and expectations for each Education Abroad program, and consequences of non-compliance (including removal from program at participant's expense and possible legal or disciplinary action);
- Location Specific Risks: Each participant must sign an assumption of risk statement indicating they received State Department Consulate Information, a Center for Disease Control (CDC) statement regarding disease risks, and any other site-specific information;
- All participants must complete the Minnesota State Student Release and Waiver agreement and the Health Information collection form;
- Image Release and Waiver: All participants must sign a Photo Release and Waiver of Liability, which may be used for Education Abroad marketing materials.
- Student acknowledgement and agreement form.

Pre-Travel Orientation

All leaders of Education Abroad programs will conduct a mandatory pre-departure orientation at least three weeks prior to travel, keeping a log of participants. Any student who does not attend orientation will lose SCC approval to study abroad. The orientation will address, at a minimum:

- Review of final itinerary;
- Applicable conduct policies and information on how participants may raise complaints including, but not limited to, sexual harassment or assault;
- Procedures on dealing with alcohol use, illegal drug use and other behavioral incidents;
- Information and associated guidance on health, safety, and security precautions including the need to bring adequate supplies of prescription medication;
- Expectations for immunizations as required by the CDC;
- Review of communications and emergency protocols;
- Appropriate cultural information about the travel destination and adjusting to the environment;
- Participant required forms completion;
- Resources for counseling or other services for student re-entry adjustments;
- In-travel emergency contact information;
- Secure signed student memorandum of understanding for consequences of alcohol use, illegal drug use, and other behavior incidents.

Pre-Departure Documentation

All leaders of approved Education Abroad programs will submit the following items to the Vice President of Academic and Student Affairs in an organized paper and/or electronic file (minimally three weeks prior to travel):

- The SCC Education Abroad Program Information D2L Site (minimally includes dates of travel, lodging information, contact information for consulate offices/embassies/police offices/hospitals/health clinics/other local resources);
- Emergency response plan;
- Risk management plan;
- SCC Education Abroad daily itineraries;
- Participant pre-departure orientation outline, registrations, and signed student memorandum of understanding;
- On-site orientation outline and information;
- Approved Authorization to Travel Form, including the names of all student participants;
- Copy of registration for the U.S. Department of State Smart Traveler Enrollment Program (STEP);
- Latest U.S. Department Travel Warnings and Center for Disease Control visa and vaccination for entry into and out of destination country;
- If using a third party provider, a copy of both the fully executed college agreement and instructor agreement.

Other

- Employees acting as a program lead for an Education Abroad program shall promptly inform the Vice President of Academic and Student Affairs of any changes to their travel itinerary or other plans, relevant changes to U.S. Department of State Travel Warnings or Advisories, and changes to individual or program contact information.
- Employees acting as a program lead for an Education Abroad program must not receive an unallowable benefit (see Minnesota State Procedure 1C.0.1 Employee Code of Conduct). All faculty and student codes of conduct apply equally abroad as they do in the U.S.

NOTE: All personal documentation, such as passports or health documentation will remain private and secure per college policies.

Subpart F. In-Travel Requirements

In-travel Orientation

- Program leaders shall provide an on-site orientation within 24 hours of arrival and maintain documentation of participation.
 - A review of the culture, laws, and unique risks of the location must be included.
- Transportation for Education Abroad participants must be public transportation or contracted drivers and vehicles. While abroad, employees may not drive motor vehicles in which students are passengers without pre-approval of the Minnesota State Office of Risk Management. Participants are not permitted to drive motor vehicles (including, but not limited to, scooters, motorbikes, motorcycles, or cars) except in unusual circumstances and with the prior approval of the Minnesota State Office of Risk Management.
- The program leader shall monitor warnings from the U.S. Department of State; the Center for Disease Control; the World Health Organization; news of natural disasters, wars or other types of political disturbances; or other indicators of potential health or safety threats. If warranted, the program leader will communicate with the Vice President of Academic and Student Affairs to modify travel plans as may be required to protect the health and safety of participants.
- Participants are subject to the laws of the host country and to the rules and regulations of the host institution. While abroad, participants must comply with all applicable policies, rules, regulations, and the SCC student code of conduct. Students/Participants engaging in misconduct will be subject to SCC disciplinary action. Participants dismissed from the program will not receive a refund.
- Participants must carry their passport and HTH Study Abroad Health and Accident Insurance card at all times while abroad.
- Alcohol use during scheduled program time will only be permitted with SCC presidential pre-approval, consistent with System Procedure 5.18.1, upon appropriate academic rationale presented by the program leader in advance of travel abroad.

Communications

- Program leaders must be in regular communication with the Vice President of Academic and Student Affairs. They must notify him/her of safe group arrival and provide other routine updates.
- In the event of an incident or emergency, the Vice President of Academic and Student Affairs must be notified as soon as possible (within 24 hours) after securing the safety of participants.

Program Assessment

- During the education abroad program, assessments will be conducted to analyze participant satisfaction and for quality program improvement.

Subpart G. Post-Travel Requirements

1. Upon return, the program, personnel, and financial resources should be assessed by the Vice President of Academic and Student Affairs so that subsequent programs are improved based on the assessment.
2. Program leaders will provide a report which includes incident information, health and safety information, students' evaluation of the program, evaluation of travel vendors, if applicable, and other information requested by the college.
3. All records related to Education Abroad programs that are organized, promoted, and approved by SCC must be retained in accordance with SCC records retention schedule.
4. Program leads are required to document any incidents (emergency, discipline, health, faculty interventions) and submit the program's daily log to the Vice President of Academic and Student Affairs upon return.
5. If an emergency occurs, SCC will conduct an assessment including a review of incident logs and reports, and interviews with those affected. The assessment should determine what steps could be taken to improve future responsiveness.
6. All approved business related expenses must be submitted to the Business Office per the SCC and Minnesota State 5.19.3 Travel Management Procedure.

Subpart H. Emergency Procedures

In the event of an emergency, program leaders will, as described below, contact the Vice President of Academic and Student Affairs. *All media communication must be coordinated through the SCC Office of Marketing and Communications at 507.389.7289.*

1. **Arrest or Incarceration** - In the event of an arrest or incarceration, the program leader will account for each participant; contact the local embassy of the participant's origin; follow emotional trauma protocol for participants who exhibit signs of emotional stress or trauma; and contact the Vice President of Academic and Student Affairs. The Vice President will complete an incident report within 24 hours and notify the participant's emergency contacts.
2. **Code of Conduct Violations** - In the event that a student code of conduct violation is reported, the program leader must conduct a student code of conduct evaluation and follow the SCC code of conduct process. Program leaders must complete an incident report and implement necessary disciplinary action.

3. **Death** - The program lead is responsible for immediately contacting and working with local officials (police, coroner, or embassy). The program lead will contact the Vice President of Academic and Student Affairs and inform other program participants of the situation. The continuance of the program activities is at the discretion of the program lead in consultation with the Vice President of Academic and Student Affairs. The Vice President of Academic and Student Affairs will notify the participant's emergency contact and keep them updated on next steps; will notify the U.S. Embassy; will work with the program lead and college staff to assist in-country partners on repatriation of remains.
4. **Emergency Health** - In all emergency health incidents, the program lead will monitor the condition of the participant, contact local health providers, ensure participant care, contact the Vice President of Academic and Student Affairs to help complete an SCC Incident Report within 24 hours of the incident by email or fax. The Vice President of Academic and Student Affairs will notify the participant's emergency contact and keep them updated.
5. **Evacuation** - In the event of an evacuation, the program leader will account for all participants, complete any necessary incident reports, and contact the Vice President of Academic and Student Affairs. The Vice President of Academic and Student Affairs will notify the participant's emergency contact and keep them updated. If necessary, SCC staff will contact the medical evacuation insurance providers.
6. **Illness/Surgery/Hospitalization** - In the case of severe illness requiring hospitalization, the program lead will assist the participant in registering at a previously identified hospital, arrange for translation, and document all interactions with physicians and hospital personnel.
7. **Inaccessible Program Lead/Participant** - If the program leads are inaccessible during the Education Abroad program, participants are required to follow protocol as described in the pre-departure orientation, which should include contacting the Vice President of Academic and Student Affairs and reconvening at the resident location until further instructions are provided. In the case of an emergency, participants can also seek assistance at the U.S. Embassy.

If a participant is inaccessible to the program lead/group, the program lead must contact the Vice President of Academic and Student Affairs and or local emergency resources as described in the site specific Emergency Plan.

8. **Mental Health Concerns** - In the event of a mental health emergency, the program lead will work with appropriate local counseling or mental health professionals as necessary. The program lead will contact the Vice President of Academic and Student Affairs immediately to communicate with the participant's emergency contacts.
9. **Natural Disasters** - In the event of a natural disaster, the program lead must account for all participants and contact the Vice President of Academic and Student Affairs as soon as possible. Once notified by the program lead, the Vice President of Academic and Student Affairs will notify participant emergency contacts and keep them updated, as well as contact the U.S. Embassy. The Vice President of Academic and Student Affairs will monitor the situation with the program lead and collaboratively determined if conditions are returned to normal and activities can resume or if the program should be cancelled.

Participants should gather at a predetermined site. If participants are unable to gather at the predetermined site, they should phone their program lead, if possible, and find shelter. Participants may also seek assistance at the U.S. Embassy.

Subpart I. Academic Procedures Credits and Grades

- Credit earned by the participant on approved student and cultural exchange and/or other Education Abroad experiences will normally transfer as credit, and may fulfill program requirements subject to departmental approval. This approval should be sought by the student prior to departure.
- Students may use financial aid for SCC preapproved credit-based Education Abroad programs.
- Education Abroad credits, on approved programs, may transfer back to SCC.
- Courses completed on semester or academic year programs may not be taken for pass/fail unless that is the only grading option available for the course. Any student taking a course for pass/fail must notify the Vice President of Academic and Student Affairs prior to taking the course. In all other cases, students on semester or academic year programs must register for letter grades.
- Transfer credit is awarded only after receipt of an official transcript from the host institution.
- Courses must not be a repeat of previous coursework or more elementary than previous coursework, with rare exceptions and prior approval.
- Courses must be college-level (e.g., no remedial classes).
- Students who leave SCC to enroll in a non-Minnesota State sponsored Education Abroad program (i.e. program in a country for which the U.S. State Department has issued a Travel Warning) may transfer credits subject to Vice President of Academic and Student Affairs and program department approval.
- SCC shall determine whether faculty led Education Abroad programs are credit or non-credit bearing. Credits awarded through Education Abroad programs that are not SCC sponsored may be evaluated for transfer credit pursuant to System Procedure 3.21.1.

Subpart J. Third Party Provider Programs

1. The requirements of this procedure apply to Education Abroad programs offered through a third party provider pursuant to a contract with SCC.
2. All third party providers must use a contract signed by SCC's Vice President of Finance and Operations. Contracts with providers should include clear standards and expectations for safety and responsibility, clear instruction for payment and options for refund, and include 24-hour contact information if the organization is providing in-country emergency services. Contracts should be reviewed by Minnesota State General Counsel and/or Office of Risk Management and be in compliance with other college purchasing/contracting requirements.
3. All third party providers must be pre-approved. Criteria for approval may include type or location of program, support services offered, curricular focus, health/safety oversight, or other factors. All third party providers (e.g. lodging and/or travel support) must be reviewed for reputation and quality. Third party provider programs must comply with the Minnesota State Code of Ethics.

4. SCC will inform students that any information they receive about non-contracted third party providers does not constitute an endorsement, approval, or evidence that the college has vetted the third party provider. SCC shall also inform the students of the potential risks when engaging with third party providers.

Subpart K. Compliance with Legislation

South Central College shall submit Education Abroad student data in compliance with Minn. Stat. § 5.41 Study Abroad Programs and the Jeanne Clery Disclosure of Campus Security and Campus Crime Statistics Act, codified at 20 U.S.C. § 1092 (f).

Forms

Study Abroad Student Orientation [Checklist](#)

List of Related Procedures or Policies

- 3.41 Education Abroad Programs policy (System)
- 3.41.1 Education Abroad Programs procedure (System)
- 1A.10 Long-Term Emergency Management policy (System)
- 1B.01 Equal Opportunity and Nondiscrimination in Employment and Education policy (System)
- 1B.01.01 Report/Complaint of Discrimination/ Harassment Investigation and Resolution procedure (System)
- 1B.03 Sexual Violence policy (System)
- 1B.03.01 Response to Sexual Violence and Title IX Sexual Harassment procedure (System)
- 1B.04 Access and Accommodation for Individuals with Disabilities policy (System)
- 1C.00.01 Employee Code of Conduct procedure (System)
- 3.01 Student Rights & Responsibilities policy (System)
- 3.06 Student Conduct policy (System)
- 3.21.01 Transfer of Undergraduate Courses, Credit, Associates Degrees and the Minnesota Transfer Curriculum procedure (System)
- 4.00.01 Use of Volunteers procedure (System)
- 5.11.01 Tuition and Fees procedure (System)
- 5.12 Tuition and Fee Due Dates, Refunds, Withdrawals and Waivers policy (System)
- 5.14.02 Consultant, Professional or Technical Services, and Income Contracts procedure (System)
- 5.14.05 Purchasing procedure (System)
- 5.18 Alcoholic Beverages or Controlled Substances on Campus policy (System)
- 5.18.01 Alcohol Use and Controlled Substances on Campus procedure (System)
- 5.19.03 Travel Management procedure (System)
- [Minnesota State Office of Higher Education](#)
- [Minnesota Statutes § 5.41 Study Abroad Programs](#)
- [Minn. Statutes § 43A.38 Code of Ethics for Employees in the Executive Branch](#)
- U.S. Department of State Smart Traveler Enrollment Program (STEP) <https://step.state.gov/step/>

Date of Last Review: 04/08/2021

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Electronic Equipment Checkout DoIT – SCC Students

Overview

The Department of Instructional Technology (DoIT) offers an electronic equipment checkout service to South Central College (SCC) students. Electronic equipment is available for checkout at the Help Desk on the N. Mankato campus and the Library on the Faribault campus. Electronic equipment is to be used for the purposes of study, work, and research related to SCC activities.

Limits & Availability

- The electronic equipment can only be checked out and used by currently enrolled SCC students.
- If any electronic equipment is twelve days past due, the item will be considered lost. The borrower will be charged for replacement costs and denied electronic equipment borrowing privileges for a defined period of time.
- Patrons who have Help Desk fines are ineligible to check out any other Help Desk equipment.
- Electronic equipment will be available on a first-come, first-serve basis. They cannot be reserved ahead of time.
- An eligible patron is allowed to borrow one of each type of electronic equipment at a time.
- Borrowers may not install software on the machines.
- Borrowers may not alter, delete, or copy any software loaded on the electronic equipment or otherwise change its existing configuration.

Checkout Procedure

- Students borrowing any electronic equipment should read and agree to abide by the SCC Electronic Equipment Checkout Policy and the MnSCU Acceptable Use Policy. (<http://www.minnstate.edu/board/policy/522.html>)
- The student borrowing electronic equipment is required to present a valid SCC ID card.
- The borrower must sign the electronic equipment checkout agreement before taking any electronic equipment.
- At the time of checkout, the electronic equipment will be inspected by a Help Desk worker to make sure it is intact and functioning properly.
- The borrower will be cautioned to save files on a separate device. All files will be erased after the computer is returned.
- The electronic equipment will be checked out to the borrower's SCC Library account.

Loan Period & Renewals

The checkout period for each electronic equipment item is as follows:

- Laptops – 1 Week
- Video Camera – same day
- Digital camera– same day
- Sound recorders– 1 week
- Web Cams– 1 week
- Headphones– same day - onsite use only

Weekend check out of same day equipment is up to the discretion of the manager. Items will not be renewed. This allows for maintenance to be performed so the item can be re-circulated.

Check-in Procedure

- When returning, the borrower should allow at least five minutes for the Help Desk worker to check the equipment.
- Borrowers must return the electronic equipment to the Help Desk. Electronic equipment should not be left unattended at the Help Desk counter.
- A Help Desk worker will verify that all parts are present and that the computer and all accessories are in good working order.
- All electronic equipment will be turned on and checked for functionality upon return.
- The electronic equipment will then be checked in from the borrower's library account.

Fines & Liability

- A patron's privilege to check out any electronic equipment may be removed for the upcoming academic semester for which a student is enrolled if the patron has two late returns in one semester.
- Overdue notices are sent to the borrower's SCC email account, starting the day after the equipment is due.
- There is no grace period before fines start for overdue equipment.
- The daily fines for each electronic equipment item is as follows:

- Laptops – \$10.00 per business day (M-F)
- Video Camera – \$10.00 per business day (M-F)
- Digital camera– \$10.00 per business day (M-F)
- Sound recorders– \$10.00 per business day (M-F)
- Web Cams– \$10.00 per business day (M-F)
- After 14 business days unreturned electronic equipment will be considered stolen or lost. The student's account will be billed for the replacement cost of the item and the Director of Public Safety, as well as the appropriate law enforcement agency, will be notified.
- The borrower is responsible for making sure that the electronic equipment is in working order and without physical damage when it is returned.
- Under no circumstances should a borrower leave the electronic equipment unattended. SCC will not be responsible for lost or stolen electronic equipment even when it is used on campus property.
- It is the borrower's full responsibility and fiscal liability for all costs associated with damage to the electronic equipment or its associated peripheral equipment during the period it is checked out or its replacement costs should it be lost or stolen.

Troubleshooting Problems & Questions

- If patrons experience problems with electronic equipment hardware or applications or have questions, they should ask a Help Desk worker.
- The borrower will be fiscally responsible for any damage to any electronic equipment if he/she tries to troubleshoot problems.

Disclaimer

SCC is not responsible for damage to any removable drive (i.e. CD or flash drive) or loss of data (video, photograph, audio) that may occur due to malfunctioning hardware or software.

Created: February 11, 2011 Updated: April 5, 2013

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Emergency Response, Notification and Evacuation #5.2401

Part 1. Policy Statement

South Central College is committed to compliance with the regulatory guidelines of the Clery Act. As a portion of that commitment, South Central College publishes annually statistics and information regarding campus crime statistics. This policy is to inform all South Central College employees, students, and visitors of emergency situations.

Part 2. Purpose/Authority

This policy establishes emergency response, notification, and evacuation procedures for South Central College at the Faribault and North Mankato Campuses.

Part 3. Scope/Applicability

This policy is to inform all South Central College employees, students, and visitors of emergency situations.

Part 5. Major Sections

Reporting an Emergency

People reporting an individual emergency while on campus should dial 911 from any phone for assistance. Employees of South Central College reporting a campus-wide emergency situation shall call the Safety and Security Department (North Mankato: 507-509-3885 or Faribault: 507-720-8440) during regular business hours. During non-business hours 911 should be used for any emergency.

Methods of Internal/External Notification

The President or designee shall by understanding the type of incident recognize the method(s) which will best communicate the message. The following are available methods for both internal and external communication/notification.

Star Alert Emergency Notification System

- Campus-Wide Email
- Internal Alarm Systems
- Internal Public Address System
- Internal Public Monitors (Closed Circuit TV)
- Critical Incident Team Emergency Communications Network/Policy
- Public Information Officer (PIO)

Protective Options

The President or designee by understanding the type of incident shall recognize the potential or need for protective measures. The following are available methods for protection.

Shelter in place

Evacuation to a predetermined safe location (North Mankato Campus=Pepsi Cola Warehouse/Faribault= Faribault High School).

Evacuation from campus/location determined by circumstances or personal need Lockdown.

Testing Notification Systems

During the course of each school year, the President or designee shall ensure that the Security Director and/or maintenance staff performs regular testing of the emergency warning and notification systems within the college. Testing shall occur on an annual basis for procedures such as lockdown/lockout, fire, tornado, and other emergency situations as deemed appropriate. In each of the

emergency tests, appropriate forms of notification shall be utilized. Monitoring of warning/notification effectiveness will guide actions in future testing of emergency warning and notification systems

Date of Last Review: 10/24/2023

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Enrollment Policy #3.0401

Part 1. Policy Statement:

The purpose of this policy is to articulate college admission and enrollment requirements.

Part 2. Purpose/Authority:

The purpose of this policy is to articulate college admission and enrollment requirements.

Part 3. Scope/Applicability: n/a

Part 4. Definitions:

The following definitions apply for purposes of this policy.

Ability to Benefit. The Consolidated and Further Continuing Appropriations Act of 2015 amended the Higher Education Act of 1965 to partially restore what is known as the “ability to benefit (ATB) alternatives.” The law went into effect December 16, 2014, and allows for a student who did not receive a high school diploma or its equivalent, or who did not complete a secondary school education in a homeschool setting, to be eligible for Title IV financial aid meeting a combination of ATB alternatives and enrollment in an eligible career pathways program.

Admission. A student’s initial entrance as a candidate for a certificate, diploma or degree.

Academic or Career Program. A major leading to an academic credential.

Enrollment. The onboarding process for new students, including admission to college.

International student. A student who holds an F-1 student visa.

Non-degree seeking student. A student who is not seeking a degree or certificate at the college. Non-degree seeking students are not eligible for financial aid.

Visiting student. A student who is not admitted to the college, but has registered for courses by creating an e-Services account or through their e-Services account at another Minnesota State institution. Visiting students may be eligible for financial aid through their home institution.

Part 5. Major Sections:

Subpart A. General Admissions

South Central College considers all applicants for admission regardless of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, gender expression or familial status.

Admission to the College does not automatically qualify a student for all college-level courses and programs. Some programs also require special prerequisites and requirements.

Subpart B. Admissions Requirements

Admission to the college is open to all students meeting the College’s admission requirements.

- Any individual who has graduated from an accredited high school or successfully completed a General Education Development (GED) examination is eligible for admission.
- Applicants without a high school diploma or GED who meet other requirements as defined by Minnesota State “Ability to Benefit” standards.

Subpart C. Application Deadline

Complete application on file prior to the start of the semester.

Subpart D. Course Placement

All new students will be evaluated for course placement in college level courses through multiple measures including high school grade point average, guided self- placement, or previously taken course placement test.

Subpart E. Students Suspended for Academic Reasons

Students with an active suspension are required to submit an Academic and Financial Aid Reinstatement Appeal Form after completing the admissions process. Admission will not be granted unless the appeal is approved or they have served their suspension.

Subpart F. Students Suspended for Disciplinary Reasons

Students who have been suspended or expelled for disciplinary reasons from any postsecondary institution may be denied admission. An appeal may be submitted and will be reviewed by the Vice President of Student Affairs.

Subpart G. Financial Holds

South Central College may admit a student who has a financial hold at another college or university but shall not allow the student to enroll in courses until the financial hold has been removed.

Subpart H. Transcripts

Students who have earned college level credit must submit official transcripts for purposes of course placement and transfer credit evaluation.

Subpart I. Selective Health Science Programs

Nursing and health science programs have established selective admission processes. Refer to academic program pages for deadlines, program requirements, and selection process.

Subpart J: International Students**Section 1.**

Individuals who have been issued with an F-1 student visa for the purpose of completing a program of study in the United States. The definition of 'international student' applies to students who have either been issued with an F-1 student visa outside the U.S. at a U.S. embassy or consulate or with an F-1 student visa from inside the U.S. through the process of Change of Status (from another type of visa) by United States Citizenship and Immigration Services (USCIS).

Section 2. Application Deadlines

New International Students must have all materials submitted by May 1 for Fall semester and September 1 for Spring semester. The application for international students already in the United States and desiring transfer is July 1 for Fall semester and November 1 for Spring semester. Summer admissions for international students is not allowed.

Section 3. Students Whose First Language is Not English

Applicants whose primary language is not English and those who have graduated from a high school where the instruction was other than English, must demonstrate English language competency prior to enrollment.

Subpart K: Post Secondary Enrollment Options (PSEO) Program**Section 1.**

Minnesota high school sophomores, juniors and seniors may enroll at South Central College through the Post-Secondary Enrollment Options (PSEO) program administrated by the MN Department of Education for Fall and Spring semesters. Admissions guidelines for PSEO follow those set forth by Minnesota State and described in SCC PSEO Procedure 3.0501.0001

Section 2. Application Deadlines:

South Central College does not have an application deadline to admit PSEO students.

Section 3. Other requirements/restrictions:

Students must demonstrate college readiness to enroll in college level courses paid for by the PSEO program and students are not eligible to enroll in developmental courses, courses with supplemental fees of more than \$100, and cannot receive financial aid. The PSEO program is not funded for Summer term.

Subpart L: Visiting Students:

Section 1.

Students currently admitted to another college or university may choose to enroll at South Central College as a visiting student and are not required to apply for admissions. These students are not candidates for a degree, diploma, or certificate from SCC.

Section 2.

Students must meet established course prerequisites or placement guidelines to enroll in specific courses and visiting students cannot enroll in more than 22 credits per semester including all Minnesota State credits.

Section 3.

Visiting student status is not available to those currently on suspension, students who have been expelled, or students who have a financial hold of more than \$30 at another post-secondary institution.

Section 4.

Financial aid is not available from South Central College; however, these students may receive financial aid from their home college via a consortium agreement.

Part 6. Forms: n/a

Date of Next Review: 02/14/2027

List of related policies or procedures (if any):

- 3.04 Undergraduate Admissions policy (System)
- 3.04.01 Undergraduate Admissions procedure (System)
- 5.11 Senior Citizens policy (System)
- 3.05 Post-secondary Enrollment Options (PSEO) Program policy (System)
- 3.05.01 Post-secondary Enrollment Options (PSEO) policy
- 3.0501 Post-secondary Enrollment Options (PSEO) Program procedure (System)
- 3.0501.00001 Post-secondary Enrollment Options (PSEO) procedure
- 2.09 Academic Standing and Financial Aid Satisfactory Academic Progress policy (System)
- 2.0901 Satisfactory Academic Progress policy
- 2.09.01 Academic Standing and Financial Aid Satisfactory Academic Progress procedure (System)
- 3.2901 Credit Life Span policy
- 3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum policy (System)
- 3.2101 Transfer Credit policy
- 3.39 Transfer Rights and Responsibilities policy (System)
- 3.21.01 Minnesota Transfer Curriculum procedure (System)

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Enrollment Procedure #3.0401.0001

Part 1. Purpose Statement:

This procedure provides clear, accessible information to students regarding admissions requirements to the college as well as the appropriate level of academic preparation necessary for success in specific programs of study.

Part 2. Scope/Applicability: n/a

Part 3. Definitions:

Enrollment in courses generally requires:

- Application form with applicable transcripts
- Letter of acceptance
- Completion of course placement review; and
- Completion of advising requirement in order to register for classes.

Part 4: Procedures:

Subpart A. General Enrollment Process includes the following steps:

- Complete the Minnesota State online application form or a South Central College paper application.
- Receive a letter from the SCC Office of Admissions indicating that the student has been admitted to the College.
- Submit applicable official high school, GED and official post-secondary transcripts. A person who does not have a high school diploma or its equivalent may be admitted at the discretion of the college according to locally determined admissions requirements.
- Complete course placement process if needed. This must be completed by students requesting Ability to Benefit status.
- Complete orientation and registration process.

Subpart B. Health Science:

Selective Health Science programs have a separate process for admissions to their individual programs through established selective admissions criteria.

Subpart C. Immunizations:

Documentation of Immunization as per Minnesota State Statute (M.S.135A.14) must be received no later than 45 class days after the semester begins. Students are allowed to register for their initial term without complete immunization information on file. A registration hold will limit future registration to one course if the immunization form is not received.

Subpart D. Appeals:

Students denied admission or enrollment may appeal. Appeals of denial of admission or enrollment based on financial holds will not be accepted.

Subpart E. International Student Provisions:

A person enrolling at the college as an international student must submit the following to the Admissions Office:

- Completed International Student Admission Application
- Proof of academic achievement as documented by official high school or college transcripts (English or English translation)
- A notarized, current, original bank statement showing the required dollar amount in U.S. currency for adequate financial support to cover all educational and living expenses to fund one academic year (tuition and fees, books, housing, food, transportation, medical insurance, and other expenses).
 - If using a financial sponsor, the financial sponsor must submit an Affidavit of Support (I-134) and a notarized, current, original bank statement in U.S. currency.
 - The bank statement must be in English, certified by a bank official, and not less than two (2) months old at the time of application.

- Proof of English proficiency based on one of the following tests:
- TOEFL – minimum score of 500 on the Paper-Based Test (PBT) or 61 on the internet-Based Test (iBT)
- Michigan Test – minimum score of 80
- ELS – Academic level 109 completed
- International English Language Testing System (IELTS) – minimum score of 5.5
- Duolingo English Test (DET) – minimum score of 95
- Proof of visa status if currently residing in U.S, or copy of Form I-20 for F-1 visa holders
- Purchase mandatory college-sponsored medical insurance plan

Subpart F. Post-Secondary Enrollment Options Program (PSEO):

- Eligibility and processes are included in the SCC Post-Secondary Enrollment Options Procedure #3.0501.0001

Subpart G. Visiting Students:

- Students at other Minnesota State institutions can enroll in SCC through e-Services.
- Students at other non-Minnesota State institutions can submit a visiting student/non-degree seeking application.
- Visiting students shall satisfy course prerequisites.
- Enrollment may be denied to a student with a hold due to conduct or Satisfactory Academic Progress or Financial Hold at any institution.
- A registration window for visiting students will provide them with a reasonable opportunity to register for courses.
- South Central College may limit enrollment in historically high demand courses **or courses restricted to majors**.

Subpart H. Senior Citizens:

- Minnesota resident senior citizens, 62 years of age and older, may enroll in credit courses on a space-available basis beginning on the second day of the term. Students must self-identify and provide proof of age at the Registration Office.
- Senior citizens enrolled in credit courses are not charged for tuition, but are charged a reduced administrative fee per credit in addition to regular and special fees, including but not limited to per-credit Technology and MSCSA fees, textbook and material fees. Other fees, such as parking fees or late fees may be assessed, if applicable.
- Closed enrollment contract training courses designed and offered specifically and exclusively for senior citizens, or professional continuing education courses, are not eligible for a free or reduced rate.
- The senior citizen rate is not available to degree-seeking students.

Part 5. Forms: n/a

Date of Last Review: 02/14/2024

List of related procedures or policies:

- 3.04 Undergraduate Admissions policy (System)
- 3.04.01 Undergraduate Admissions procedure (System)
- 5.11 Senior Citizens policy (System)
- 3.05 Post-secondary Enrollment Options (PSEO) Program policy (System)
- 3.05.01 Post-secondary Enrollment Options (PSEO) policy
- 3.0501 Post-secondary Enrollment Options (PSEO) Program procedure (System)
- 3.0501.00001 Post-secondary Enrollment Options (PSEO) procedure
- 2.09 Academic Standing and Financial Aid Satisfactory Academic Progress policy (System)
- 2.0901 Satisfactory Academic Progress policy
- 2.09.01 Academic Standing and Financial Aid Satisfactory Academic Progress procedure (System)
- 3.2901 Credit Life Span policy
- 3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum policy (System)
- 3.2101 Transfer Credit policy
- 3.39 Transfer Rights and Responsibilities policy (System)
- 3.21.01 Minnesota Transfer Curriculum procedure (System)

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Extended Student Absences Procedure #3.0003.0002

Part 1. Purpose Statement:

This procedure informs students, faculty and staff of which South Central College (SCC) staff that students should meet with if they experience an extended absence from classes. This procedure also explains expectations for further communication from the SCC staff person after they have met with the student.

Part 2. Scope/Applicability:

This procedure applies to all students. All staff and faculty can be referral resources for students utilizing this procedure.

Part 3. Definitions:

Accommodation: A change to the way something is usually done so that a person with a disability can be afforded equal opportunity.

ADA: The Americans with Disabilities Act (ADA) is a civil rights law that ensures that people with disabilities has the same rights and opportunities as other people. The ADA prohibits discrimination against people with disabilities.

Title IX: Title IX of the Educational Amendments of 1972 protects people from discrimination based on sex in education programs or activities that receive Federal financial assistance.

Extended Absence: An absence from class of two weeks or longer.

Part 4. Procedures:

Students may be absent from classes due to a variety of reasons. This procedure outlines for students, faculty, and staff what resources are available to students experiencing an extended absence. South Central College expects students and instructors to communicate regarding expectations related to any absence of less than two weeks. Regardless of the length of absence, students should contact their instructor as soon as possible.

Subpart A. Absence due to personal medical emergencies:

Students experiencing medical emergencies leading to extended absences from the college should contact Disability Services (ds@southcentral.edu 507-389-7222) because students with a temporary or ongoing disability may be eligible for disability accommodations under ADA.

- Students should contact their instructors as close to the absence as possible, regardless of whether or not they have met with Disability Services. If instructors learn of a student absence and have not yet heard from Disability Services, the instructor should refer students to the office.
- Disability Services staff will collect information from the student, document the reason for the absence, and contact the student's instructors upon determining that the absence is valid. It is the responsibility of the student to provide documentation to Disability Services. Communication from Disability Services to instructors serves to validate the reason for the absence and indicate that communication between the student and each instructor is necessary.
- Student and individual instructors will need to discuss the student's status in each class to clarify if, given the extended absence, successful course completion is possible, or if other options-such as course withdrawal should be considered.

Example of when to contact Disability Services:

- Medical emergencies, such as surgeries or major illnesses requiring hospitalization or extended absences from the college.

Examples of when NOT to contact Disability Services

- Regularly scheduled medical appointments.
- Cold, flu, communicable diseases and pandemic outbreaks, or other short-term illnesses not requiring medical treatment.

Section 1. For any absences related to communicable diseases and pandemic outbreaks as defined by the Minnesota Department of Health or another qualifying state or health agency:

Instructors should work directly with their student to make adjustments that will allow the student to finish the term when possible. If reasonable arrangements cannot be made for the student to complete the term, faculty should consider if an incomplete is reasonable. If it is not, the faculty will refer the student to their advisor to discuss options such as withdraw or no-credit grade and the potential consequences of these options. Faculty can consult with Disability Services about reasonable adjustments.

Subpart B. Student who is absent due to Pregnancy/Childbirth:

Students who anticipate or have given birth during the semester should contact the **Director of the Academic Support Center (ASC)**. Pregnant and parenting students have rights under Title IX to be accommodated in the classroom and to complete their coursework. _

Examples of when to contact Director of ASC:

- Student has been absent due to pregnancy-related sickness for more than two weeks.
- Student is not able to fully participate in class due to pregnancy (e.g., unable to sit in chairs or access lab equipment).
- Student anticipates giving birth during a semester when enrolled in classes.

If you learn that a student is pregnant, regardless of the circumstance, make a referral to the Director of the Academic Support Center. This will ensure that the student receives a communication about their Title IX rights.

Subpart C: Students with Family Emergencies:

Students experiencing family crises and emergencies that are not related to a medical emergency involving the student, and which lead or may lead to extended absences from classes, should contact the **Director of the Academic Support Center (ASC)**. The Director of ASC will collect information from the student to verify the reason for the absence and notify the student's instructors. No documentation will be sent to instructors from the Director of ASC. The information provided by the Director of ASC does not mandate any action on behalf of the course instructor. The information provided will allow the course instructor to know that the absence is legitimate.

Example of when to contact the Director of ASC for Family Emergencies:

- Family emergencies or crises, such as family-related medical emergencies or a death in the family, when these will or may lead to extended absences from class.

Example of when NOT to contact the Director of ASC for Family Emergencies:

- Family vacations or other non-emergency family-related events.

Any student or instructor is welcome to consult with the Director of the Academic Support Center or the VP of Student Affairs to gain clarity regarding these procedures.

Part 6. Forms:

No forms are necessary for students to contact the offices and or staff people outlined in this procedure. Student may be asked to fill out forms once they have contacted Disability Services, Academic Support Center, and the Associate Vice President of Student Affairs.

Date of Last Review: 02/14/2024

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Eye Safety Policy #5.2406

Policy Statement

In compliance with State Law, all students, instructors and visitors must wear eye protective devices while participating in or directly observing certain career and technical education, physics and chemistry laboratory activities and South Central College to authorize and provide the purchase of such devices.

Purpose/Authority

Eye Safety Law: An act requiring all students, instructors and visitors to wear eye protective devices while participating in or directly observing certain career and technical education, physics and chemistry laboratory activities and to authorize and provide for the purchase of such devices.

Scope/Applicability

Every person shall wear industrial quality eye protective devices when participating in, observing or performing any function in connection with any courses or activities taking place in eye protection areas, as defined in subdivision 3, of any school, college, university or other educational institution in the state.

Major Sections

Eye protection areas shall include, but not to be limited to, career and technical education classrooms/labs, science or other school laboratories, or school or institutional facilities in which activities are taking place (on or off campus) and materials related to their academic programs that are being used involving:

- Hot molten metals
- Milling, sawing, turning, shaping, cutting, grinding or stamping of any solid materials
- Heat treatment, tempering or kiln firing of any metal or other materials
- Brazing or soldering
- Repair or servicing of any vehicle or mechanical equipment
- Any other activity or operation involving work in any area that is potentially hazardous to the eye
- Bodily fluids

List of related policies or procedures

[121A.32 EYE PROTECTIVE DEVICES \(State of Minnesota\)](#)

Date of Last Review: 12/17/21

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Facilities Use Policy #6.0701

Policy Statement

The primary mission of College is to provide educational services to its students and community. This policy is designed to provide for the effective and efficient use of College property and facilities to accomplish these goals.

Purpose/Authority

The purpose of the facilities at South Central College is to support the educational mission and strategic goals for the college. The facilities are available primarily for programs offered by and intended for the campus community within our normal operating hours. South Central College functions take precedence over all other uses of College property and facilities, and any use of campus facilities by students or recognized student groups, non-affiliated organizations or other individuals must not interfere with the educational operations of the college.

Scope/Applicability

All use of all campus facilities including classrooms, labs, meeting rooms, conference rooms, event centers, parking lots, outside spaces, etc. must be scheduled and approved following the appropriate procedure for type of use (procedures are in development). Room schedules as developed under this policy will be final.

Definitions

- **College department:** official department within the College
- **College user:** use of facilities by staff and faculty of South Central College while performing their official duties
- **Commercial activities:** selling or offering to sell any goods or services as well as the solicitation or promotion of any goods or services
- **Non-affiliated organization:** an organization not affiliated with the College
- **Private Business Use:** activity by a nongovernmental person in a College facility financed with tax exempt general obligation

Major Sections

Subpart A. Scheduling Priorities and Procedures

Academic scheduling takes priority over other reservations. Next priority will be given to regularly scheduled non-credit classes. Third priority will be given to recognized student groups and college department-sponsored events. All other events will be reviewed based on available space.

All college users of all campus facilities including classes, labs, meetings, and indoor or outdoor events or activities must be scheduled and approved under this policy. All internal academic and non-academic room scheduling shall be done in accordance with the Room Scheduling Procedure (in development to go with this policy).

Nonaffiliated individuals, groups and organizations who wish to use College facilities shall complete application at least 30 days in advance. The College may request more notice for indoor or outdoor facilities as appropriate. All non-affiliated organizations will be required to enter a facility use agreement prior to being granted access to College facilities. Any facilities use agreement entered into pursuant to this Policy must be consistent with Minnesota State Colleges & Universities Procedure 6.7.2.

Space assignments are subject to change by the Finance and Operations Division if the space scheduled is needed for a higher priority activity.

Except where the College is required to do so by law, the College retains the ability to enter into facilities use contracts with individuals, groups or entities at its own discretion.

Subpart B. Facilities Use Fees

Fees will be charged according to the published Facilities Fee Schedule on the South Central College website in accordance with MinnState Procedure 6.7.2, Part 7 and MinnState Policy 2.1. Unless waived by President.

Subpart C. Safety and Liability Concerns

- **Section 1 Insurance and Indemnification:** All non-affiliated organizations, including those working with student groups or college departments, using South Central College facilities must enter into an agreement to indemnify and hold harmless South Central College, the Board of Trustees of Minnesota State, as well as their officers, employees, representatives and agents from and against all claims, demands, actions and all liability to any persons or property that are in any way related to the user's use of South Central College facilities and must provide evidence of insurance in advance of the event.
- **Section 2. Security:** The College will determine if, and how much, security is required for an event involving College facilities with fees charged according to the published fee schedule. All non-affiliated organizations using College facilities must provide security for the event.
- **Section 3. Food and Alcohol:** Alcohol and/or controlled substances may only be made available on campus in accordance with Minnesota State policy 5.18 and Minnesota State procedure 5.18.1
- **Section 4. Possession or Carry Firearms:** Firearms are generally prohibited on campus under Board Policy 5.21.
- **Section 5. Smoking:** Smoking to include E-cigarettes, tobacco use, tobacco sales (including the use or sales of smokeless tobacco products) are prohibited on college owned, operated, or leased property per Policy 5.1805.

Subpart D. Prohibited Uses

Any activity that is prohibited by federal or state law or local ordinance is prohibited. College facilities cannot be used in a manner so as to make it appear that the College endorses a sectarian, religious, political or partisan position. Members of the College community are required to adhere to College policies, including applicable employee or student codes of conduct, as well as any facility use agreements. Non-affiliated organizations must abide by their lease agreements, as well as all federal, state or local laws.

Failure to abide by policies or agreements can lead to cancellation of event and use of facilities and prohibition of any further lease of facilities

Subpart E. Emergency Restrictions

South Central College reserves the right to cancel any scheduled use of its facilities due to weather and other emergencies. South Central College retains the right to enter into agreements with local government units as needed to address any emergencies.

Subpart F. Disclaimer

South Central College does not assume any responsibility or obligation resulting from its decision to make its facilities available pursuant to this Policy. Nor does such a decision implicate support for an individual or organization's objectives. All users of College facilities must comply with all federal, state and local laws.

Subpart G. Appeals

Any decision made by the Scheduling Coordinator may be appealed to the Vice President of Finance & Operations. The appeal must clearly identify where the previous facilities decision was incorrect. Review of the facilities use decision by the Vice President of Finance & Operations shall be de novo. No further appeals will be entertained.

Date of Last Review: 5/25/2023

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Grading Policy #3.0005

Part 1. Policy Statement

Letter grades will be assigned to each student in each credit course as an evaluation of student performance.

Part 2. Purpose/Authority:

The purpose of this policy is to define acceptable grades for students attending credit classes at South Central College.

Part 3. Scope/Applicability:

n/a

Part 4. Definitions

The following are acceptable grades that may be used in grading students' work.

A = 4.00 grade points per credit
A- = 3.67 grade points per credit
B+ = 3.33 grade points per credit
B = 3.00 grade points per credit
B- = 2.67 grade points per credit
C+ = 2.33 grade points per credit
C = 2.00 grade points per credit
C- = 1.67 grade points per credit
D+ = 1.33 grade points per credit
D = 1.00 grade points per credit
D- = 0.67 grade points per credit
F = 0 grade points per credit

F = Failure. Faculty must report last date of attendance when assigning an F grade.

FN = Failure. Student never attended the course; 0 grade points per credit, excluded from GPA but considered during the evaluation of Satisfactory Academic Progress completion rate requirements. This grade is assigned and faculty must report never attended.

FW = Failure/Withdrawn. Student attended one or more class sessions but did not complete course; 0 grade points per credit (included in GPA); this grade is assigned and faculty must report last day of attendance.

I = Incomplete. A temporary grade issued when the instructor has reasonable expectation that the student can complete unfinished course requirements; 0 grade points per credit; excluded from GPA but considered during the evaluation of Satisfactory Academic Progress completion rate requirements. A student may initiate a request for an incomplete grade in the event of circumstances beyond their control which prevent completion of the course. Assignment of the incomplete grade is at the discretion of the instructor. A grade of "I" will count as credits attempted but not completed when calculating a student's percent of completion for satisfactory academic progress.

The following criteria must be met before an incomplete grade will be assigned:

- The student has attended a majority of course meetings and completed a majority of the coursework requirements.
- The student shall not re-register for the course while completing the remaining work.
- Student requests must be approved by the instructor and then the academic dean.

P = Pass. The Pass grade is equivalent to earning a minimum of a letter grade of C be excluded from GPA but considered during the evaluation of Satisfactory Academic Progress completion rate requirements. May only be used for approved select courses such as

internships, health clinical, and Farm Business Management.

AU = Audit. 0 grade points per credit; excluded from GPA. Audited courses are not given college credit, are not eligible for financial aid or VA benefits and cannot be used to satisfy graduation requirements.

W = Withdrawal. Assigned after the first five days of the semester up to the 80th percent point of the semester (this time period is adjusted for classes that do not meet the full length of the term); 0 grade points per credit; excluded from GPA but considered during the evaluation of Satisfactory Academic Progress completion rate requirements. A grade of W cannot be assigned by faculty but may be assigned by College administration as deemed appropriate. Once a student is withdrawn from a course, the student is no longer allowed to attend or participate in that course.

Z = Class in progress or no grade reported; 0 grade points per credit; excluded from GPA but considered during the evaluation of Satisfactory Academic Progress completion rate requirements.

Date of Last Review: 5/8/2020

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Grading Procedure #30005.001

Part 1. Purpose Statement

The purpose of this procedure is to establish fair and consistent procedures for grading students' coursework for students attending credit classes at South Central College.

Part 2. Scope/Applicability

n/a

Part 3. Definitions:

n/a

Part 4. Procedures:

Subpart A. Final Grade Submission

Faculty will be given, at minimum, two business days following the last day of each semester to submit grades. Final grade reporting is completed in Minnesota State eServices.

Exception to Grade Deadline

The following circumstances allow the temporary or permanent assignment of grades prior to course completion:

- Student or college-initiated withdrawal. After the drop period ends and prior to the withdrawal deadline (80% point of the term or course), a student may withdraw from a class. A final grade of W will be assigned. South Central College administration may also assign a grade of W.
- Last date of attendance reporting. Faculty are required to report students' non-attendance as soon as they are reasonably certain the student has not or will no longer attend. Grades of FN are assigned for students who have never attended and FW for students who attended at least one day. Students may contact the Registration Office to change their FW grades to W through the end of the withdrawal period. The last date of attendance as reported by faculty will not change with the grade change.

Exceptions to Faculty Submitting Grades

Certain circumstances may permit the registrar, a college administrator, or a designee to report final grades:

- When faculty grade entry results in error or omission and the documentation in the registrar's possession reflects a final grade.
- When approving a student's appeal for a late course withdrawal.
- In the absence of the instructor of record, a designee may be assigned to submit and/or report final grades.

Grade Changes

Faculty may submit grade changes when a student's initial grade has changed. Grade changes are accepted in the following methods: report in Minnesota State eServices, in writing with the instructor's dated signature or via email from the instructor's official college email address. Grade changes will be accepted for up to two semesters (not including summer). Exceptions must be approved by the Vice President of Student and Academic Affairs.

Subpart B: Grading Options

Students can elect any valid grading option through published add/drop dates.

A-F Grading Option

The default grading option for all courses is A-F unless otherwise specified.

Pass/Fail Grading Option

Some courses may be graded on a “Pass/Fail” basis. All required coursework must be completed to receive a grade of “P”. A student may take more than one course per term on the “Pass/Fail” system. Internships, health clinicals and Farm Business Management courses may be graded “Pass/Fail”. A Pass grade is equivalent to earning a minimum of a letter grade of D, except where program requirements necessitate a higher grade. The “P” will not be used to calculate GPA but the credits will count toward graduation. A fail grade is equivalent to an “F” and will be used in the GPA calculation.

Audit Grading Option

Courses approved for audit will be assigned an AU grade upon completion. The tuition and fees for auditing a course is the same as taking the course for credit. Once this grading method is selected, it cannot be changed after the published add/drop dates.

Incomplete Grade Option

An instructor may assign a grade of “I” (Incomplete) to a student who fails to complete a course due to circumstances beyond their control when the work can be made up without retaking the course.

The instructor and student will agree upon the work to be completed and the deadline by which it must be done not to exceed the end of the following semester, not including summer. The Incomplete Coursework Form must be signed by the instructor and the student, and submitted to the Academic Dean's Office for approval. A copy must be submitted to the Registration Office to enter the “I” grade in the student's record. Once work is completed, faculty will submit a Grade Change Request using one of the following methods: report in Minnesota State eServices, in writing with the instructor's dated signature or via email from the instructor's official college email address.

If the assigned work has not been completed by the end of the following semester (not including summer), the Incomplete will change to the grade the student earned at the time the request was made. If the instructor who assigned the Incomplete is no longer employed at South Central College, the student should contact the appropriate academic dean, who may then arrange for resolving the grade.

Subpart C: Repeated Courses

Courses in Which a Grade of C- or Lower is Earned

When a course in which a grade of C- or lower was earned is repeated, the repeated grade is used in determining grade point average. The transcript will mark both the first and second course to indicate the repeat. The first course will be marked with parenthesis around the credits indicating it no longer applies to the GPA. The second occurrence will be marked with an “R”. Repeating a course will not remove the previous attempt from the student's transcript.

Courses in Which a Grade of C or Above is Earned

Students may choose to repeat a class to meet academic requirements, to improve their GPA, or to refresh their knowledge of the subject material. If a grade of C or above was earned in the initial course, both the initial and repeated course grades will be calculated into the GPA totals. Repeating a course will not remove the previous attempt from the student's transcript.

Date of Last Review: 10/29/2020

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Graduation Policy #3.0007

Part 1. Policy Statement:

Students must meet the South Central Colleges standards for graduation.

Part 2. Purpose/Authority:

The purpose of this policy is to outline the requirements for graduation from South Central College.

Part 3. Scope/Applicability:

This policy applies to all students pursuing a certificate, diploma, or associate degree at South Central College.

Part 4. Definitions:

n/a

Part 5. Major Sections

Requirements

Graduation requirements are in effect at the time the student declares a major and will apply for the duration of program enrollment, as long as the student is continuously enrolled. Students may elect to follow a new catalog, but then must meet all the requirements as stated in that catalog. When a student stops attending South Central College, the student may be subject to the degree, diploma or certificate requirements in effect at the time of re-enrollment.

Students are eligible for graduation when they have successfully fulfilled the stated requirements of an academic award and have met all South Central College degree and program requirements as verified in their degree audit. Any exceptions to published program requirements must be approved and documented before graduation.

Other requirements also include the following:

- A minimum cumulative GPA of 2.00. (Some programs require a higher minimum cumulative GPA).
- D- or above in all required courses. (Some programs require minimum grades of C or better.)
- At least one third of the credits in a program must be completed at South Central College.
- When applicable, complete all courses within the timeframe specified in the program degree audit form.
- For Minnesota Transfer Curriculum, achieve a cumulative GPA of 2.0 or better in the ten goal areas to complete the Minnesota Transfer Curriculum requirement. The MNTC GPA includes transfer courses in the calculation.

Program Completion Information

Students eligible to graduate will receive information and will be encouraged to complete the Program Completion Information Form. Students are encouraged to review their progress with their advisor and determine courses that need to be taken during the last term of enrollment to complete graduation requirements. Any exceptions to published program requirements must be approved and documented before graduation.

Students who submit a Program Completion Information form who do not meet graduation requirements will be notified.

South Central College reserves the right to post certificate, diploma, and degree completion to student academic records upon verification that all program requirements have been satisfied.

Honors

Honors for graduation will be determined based on a student's cumulative GPA at the completion of their program according to the following scale: Honors 3.3-3.49; High Honors 3.5-3.79; and Highest Honors 3.8-4.0. Because the commencement ceremony is held

before the term grades have been reported, graduation honors to be listed in the commencement program will be calculated using the most current GPA. Final honors will be calculated when all coursework has been completed and final grades have been recorded and will be listed on the South Central College transcript.

Part 6. Forms:

Program Completion form

Date of Last Review: 4/24/24

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Harassment/Nondiscrimination in Employment & Education Policy - Minnesota State #1B.01.01

South Central College is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Harassment of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or work environment and is prohibited. Sexual violence has no place in a learning or work environment. Further, South Central College shall work to eliminate violence in all its forms. Physical contact by college and staff members may be appropriate if necessary to avoid physical harm to persons or property.

This policy is directed at verbal and physical conduct that constitutes discrimination/harassment under state and federal law and is not directed at the content of speech. In cases in which verbal statements and other forms of expression are involved, SCC will give due consideration to an individual's constitutionally protected right to free speech and academic freedom.

South Central College and MnSCU Board Policy 1B.1 Nondiscrimination in Employment and Education Opportunity and Procedure 1B.1.1 can be found at: <http://www.minnstate.edu/board/policy/1b01.html>.

COMPLAINT PROCEDURE:

Students and employees who feel they are, or have been, victims of harassment or discrimination should inform the college Affirmative Action Officer or Regional Investigator as soon as possible. You can contact the college's representatives directly using the contact information below or use the [Harassment / Discrimination Complaint Form](#)

Complaints of discrimination and harassment should be directed to:

Judy Endres

Title IX Coordinator

Faribault Campus – 1225 Third Avenue; Faribault, MN 55021; office located in Student Affairs Center

North Mankato Campus – 1920 Lee Boulevard; North Mankato, MN 56003; office located in Student Affairs Welcome Center

Tel: 507-389-7351

Judy.Endres@southcentral.edu

If employees require an accommodation for a disability, please contact:

Brian Tiegs

Director of Human Resources

507-389-7219

brian.tiegs@southcentral.edu

Students requesting an accommodation for a disability, please contact:

Kelly Karstad

Director of Academic Support Services

Faribault Campus – 1225 Third Avenue; Faribault, MN 55021; office located in A116

North Mankato Campus – 1920 Lee Boulevard; North Mankato, MN 56003; office located in B132

Tel: 507-389-7339

kelly.karstad@southcentral.edu

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Immunization Policy #3.0102

Policy/Statement

To explain/clarify/define requirements and/or guidelines regarding immunization for students attending South Central College, as mandated by [Minnesota Law \(M.S.135A.14\)](#).

Purpose/Authority

To protect the health and well-being of College staff, students, and visitors.

Scope/Applicability

Minnesota Law (M.S. 135A.14) requires proof that all students born after 1956 are vaccinated against diphtheria, tetanus, measles, mumps, and rubella, allowing for certain specified exemptions. The Immunization form is designed to provide the school with the information required by the law and will be available for review by the Minnesota Department of Health and the local health agency.

The immunization record submitted must indicate the month and year the student was immunized against measles, rubella and mumps, after having attained the age of 12 months. The immunization record must also indicate the month and year the student was immunized against diphtheria and tetanus within 10 years of first registration at the institution.

Students registered for non-credit, corporate credit, Farm Business Management, or online courses **only** are exempt from submitting the required immunization record unless the course requires on-campus laboratory, internship, clinical or other on-campus contact for the purpose of completing coursework.

All immunization records must be submitted within 45 days of course commencement for which the student is registered.

Medical Exceptions

An immunization record is not required if the student submits to an administrator a statement signed by a physician that shows:

- The student did not receive an immunization for medical reasons;
- The student has experienced the natural disease against which the immunization protects; or
- A laboratory has confirmed the presence of adequate immunity.

Additional Exception

If the student submits a notarized statement that the student has not been immunized as required because of the student's conscientiously held beliefs, the immunizations are not required. The College shall submit the notarized statement to the Commissioner of Health.

Immunization Record Files

The College shall maintain an immunization record for each student for at least one year from the time of original filing. Immunization records will be maintained in a separate medical records file. The Department of Health and the local Board of Health in whose jurisdiction the institution is located may inspect immunization records.

Additional Immunization Requirements

Students in certain academic programs may be required to submit additional immunization records besides those indicated within this policy.

Definitions

"Student" means a person born after 1956 who did not graduate from a Minnesota high school in 1997 or later, and who is (1) registering for more than one class during a full academic term, such as a quarter or a semester or (2) housed on campus and is registering for one

or more classes. Student does not include persons who are only enrolled in extension classes, correspondence classes, online classes, or evening or weekend adult accelerated programs.

Date of last review: November 30, 2021

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Injury/Illness Reporting Policy #: 4.0004

Policy Statement

Reporting of injuries or occupational illnesses that occur on South Central College property is required.

Purpose/Authority

This policy is designed to ensure the proper reporting of injuries and occupational illnesses.

Scope/Applicability

This policy applies to all students, visitors, volunteers, and off-duty South Central College Employees and any other persons injured on South Central College properties.

Major Sections

It is required that all persons injured or suffer an occupational illness on South Central College properties to report it promptly. The forms can be found online at <https://southcentral.edu/Security/campus-security.html>

Employees

- [First Report of Injury/Illness – Employee Statement](#) (injured employee to complete)
- [First Report of Injury/Illness – Form](#) (Supervisor to complete or HR if Supervisor is unavailable)

Students/Visitors

- [General Injury Liability Form](#) (Instructor to complete or HR if instructor is unavailable)

Supervisors are responsible to complete the forms for employee injuries and turn them in to Human Resources. If you need to contact HR for assistance call 507-389-7234. Instructors who receive notification from a student claiming an injury/illness that results from the participation in program activities will immediately report the incident to their Dean, fill out the General Injury Liability form and turn it in to Human Resources. Reported non-occupational related injuries/illnesses (no matter how minor), must be reported by the employee online at <https://southcentral.edu/Security/campus-security.html> using the First Report of Injury – Employee Statement to Human Resources within 24 hours of the incident occurring.

Forms

- [First Report of Injury/Illness – Employee Statement](#)
- [First Report of Injury/Illness – Form](#)
- [General Injury Liability Form](#)

List of related policies or procedures:

- 5.24 Safety and Security Compliance policy (System)
- 5.2402 Safety and Health policy
- 5.2402.0001 Safety and Health procedure
- 5.2404 Student Emergency policy
- 5.2406 Eye Safety policy

Maximum Credit Load Policy #3.0402

Purpose

The policy specifies maximum credit loads and overload exceptions per semester.

Applicability

Students will be allowed to register for a maximum of 20 credits in an academic term. Any student who wishes to register for more than 20 credits must request the exception using an Add/Drop/Withdraw Course form and have the approval of the Program Advisor and Registrar.

Procedure

[Add/Drop/Withdraw Course Form - form to get faculty permission](#)

Date of Last Review: 2/18/2021

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Official Student Email Policy #5.2203

Policy Statement

E-mail is an official means for communication at South Central College. There is an expanding reliance on electronic communication among students, faculty, staff and administration at South Central College. This is motivated by the convenience, speed, cost-effectiveness and environmental advantages of using e-mail rather than printed communication.

Purpose/Authority

Implementation of this policy ensures that students have access to this critical form of communication. For the majority of students, this will not represent any change from what is currently done; it will, however, ensure that all students can access, and be accessed by e-mail as the need arises.

Scope/Applicability

This student e-mail policy provides guidelines regarding the following aspects of e-mail as an official means of communication:

- College use of e-mail
- Assignment of student e-mail addresses
- Student use of and responsibilities associated with assigned e-mail addresses
- Expectations of e-mail communication between faculty and student and staff and student

Major Sections:

Subpart A. College use of email

Email is a mechanism for official communication for South Central College, which has the right to expect that such communications will be received and read in a timely fashion. Official email communications are intended only to meet the academic and administrative needs of the college community.

Subpart B. Assignment of student email

South Central College official email accounts are available for all enrolled students. The email addresses are all of the form <firstname>.<lastname>@my.southcentral.edu.

Subpart C. Redirection of email

If students wish to have email redirected from their official @my.southcentral.edu address to another email address (e.g., @aol.com, @hotmail.com), they may do so but at their own risk. South Central College will not be responsible for the handling of email by outside providers. Having email redirected does not absolve students from the responsibilities associated with official communication sent to their @my.southcentral.edu accounts.

Subpart D. Expectations about student use of email

Students are expected to check their SCC e-mail account on a frequent and consistent basis in order to stay current with South Central College communications. SCC recommends checking e-mail once a week at a minimum; in recognition that certain communications may be time-critical. Not checking email, an error in forwarding mail and email returned to the college with "Mailbox Full" or "User Unknown" are not acceptable excuses for missing official college communications via email.

Subpart E. Authentication for confidential information

It is a violation of college policy for any user of official email addresses to impersonate a college office, faculty/staff member or student. To minimize this risk, some confidential information may be made available only through MnSCU portals, which are password protected. In these cases, students will receive email correspondence directing them to a MnSCU portal where they can access the confidential information only by supplying their student ID and PIN. The confidential information will not be available in the email message.

Subpart F. Privacy

Users should exercise extreme caution in using email to communicate confidential or sensitive matters and should not assume that email is private and confidential. It is especially important that users are careful to send messages only to the intended recipient(s). Particular care should be taken when using the “reply” command during email correspondence.

Subpart G. Educational uses of email

SCC faculty will determine how electronic forms of communication (e.g., email) will be used in their classes and will specify their requirements in the course syllabi. This Official Student Email policy will ensure that all students will be able to comply with email-based course requirements specified by faculty. Faculty can, therefore, make the assumption that students’ official @my.southcentral.edu accounts are being accessed and faculty can use email for their classes accordingly.

List of Related Policies or Procedures

5.22 Acceptable Use of Computers and Information Technology Resources policy (System)

5.22.01 Acceptable Use of Computers and Information Technology Resources procedure (System)

Date of Last Review: 11/30/2023

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Parking Fee and Regulations

Parking Fee: the parking fee will be assessed on a per credit basis with a limit not to exceed the fulltime employee rate. Parking fees are dedicated to the maintenance, improvement and monitoring of SCC parking lots. By statute, neither tuition nor state appropriation dollars may be used for these purposes. This fee is assessed per credit on all credit valued classes.

All persons parking vehicles on property owned, leased or occupied by South Central College will do so at their own risk. No responsibility will be assumed by the College or the State because of loss of property, damage to the vehicle while parked, damage which may be incurred through the process of impounding the vehicle or for any other damage or loss sustained while on a college parking facility.

Parking Regulations:

1. The speed limit on all campus roadways is 20 mph.
2. In compliance with MN Statute 169.346, use of handicapped parking stalls is restricted only to those vehicles bearing a state issued handicapped license plate or displaying a state issued certificate.
3. Violations subject to towing or wheel lock:
 - College employees, seminar participants, and enrolled students parking in visitor area
 - Parking on sidewalks, grass, entries, driveways, or on roadways around the perimeter of the parking lots
 - Diagonal parking
 - Using a stolen permit
 - Parking between 12 midnight and 6:00 a.m.
4. *Faribault Campus Only:* The 53 stalls that face the high school (East side of lot) are unavailable for student parking. Students attending overnight conventions and other college activities are asked to notify the Facilities Manager.
5. *North Mankato Campus Only:* Students attending overnight conventions and other college activities are asked to use the purple lot. Vehicles parked overnight in any other lot will be towed at the owners expense.

Please Note: Lock your vehicle to prevent theft of your parking permit. There is a \$10 replacement fee for parking permits.

Learn more about [SCC Security](#).

[Student Parking Waiver Form](#)

[Faculty/Staff Parking Waiver Form](#)

AASC 12/16/11

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Postsecondary Enrollment Options (PSEO) Policy #3.0501

Part 1. Policy Statement:

In accordance with Minnesota Statute 124D.09 and MinnState system policy 3.50, the purpose of this policy is to outline requirements and standards for the Post-Secondary Enrollment Options (PSEO) Program

Part 2. Purpose/Authority:

In accordance with Minnesota Statute 124D.09 and MinnState system policy 3.50, the purpose of this policy is to outline requirements and standards for the Post-Secondary Enrollment Options (PSEO) Program

Part 3. Scope/Applicability:

Applies to students as defined below.

Part 4. Definitions:

Post-Secondary Enrollment Options Program (PSEO): The Post-Secondary Enrollment Options Program is the program established by [Minnesota State Statutes 124D.09](#) to “promote rigorous educational pursuits and provide a wider variety of options for students.” Through PSEO, high school students may earn both secondary and postsecondary credit for college or university courses completed on a college or university campus, at a high school, or at another location.

PSEO Concurrent enrollment course: A PSEO concurrent enrollment course is a college or university course made available through the PSEO program, offered through a secondary school, and taught by a secondary teacher.

Part 5. Major Sections:

Postsecondary Enrollment Options Expectations: Minnesota State provides opportunities for students to participate in the Post-Secondary Enrollment Options Program. Students shall be admitted according to criteria that promote progress through college-level coursework and that augment their continued academic growth consistent with board policies and system procedures.

Subpart A. Enrollment on campus

Enrollment of PSEO students in courses on a college or university campus shall be allowed on the basis of available space as defined by the college or university.

Subpart B. Compliance with standards

In accordance with Minnesota State policy, South Central College shall require PSEO students to perform to the college's academic and student conduct standards.

Subpart C. Developmental Courses

In accordance with Minnesota State policy, South Central College shall not enroll students in developmental courses through PSEO.

Part 6. Forms: n/a

Date of Last Review: 02/14/2024

List of related policies or procedures:

- 3.05 Post-secondary Enrollment Options (PSEO) Program policy (System)
- 3.05.01 Post-secondary Enrollment Options (PSEO) Program procedure (System)
- [Minnesota State Statute 124D.09](#)
- [MN Department of Education Postsecondary Enrollment Options](#)

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Postsecondary Enrollment Options Procedure

#3.0501.0001

Part 1. Purpose Statement:

In accordance with Minnesota Statute §124D.09 and Minnesota State Policy 3.5, this procedure governs the implementation of the Post-Secondary Enrollment Options program at South Central College.

Part 2. Scope/Applicability: n/a

Part 3. Definitions: n/a

Part 4. Procedures:

Subpart A. Admissions Requirements for PSEO Students.

Section 1. Eligibility Standards.

PSEO participation shall be available to sophomores, juniors and seniors enrolled through a Minnesota high school, home school, or alternative learning center who present evidence of the ability to perform college-level work. Such evidence includes the following:

- **Seniors:** Class rank in the upper one-half of their class, or score at or above the 50th percentile on a Minnesota State recognized nationally standardized, norm-referenced test (such as ACT, SAT, Aspire, or PSAT), or cumulative GPA of 2.5 (on a 4.0 scale) or better
- **Juniors:** Class rank in the upper one-third of their class, or score at or above the 70th percentile on a Minnesota State recognized nationally standardized, norm-referenced test (such as ACT, SAT, Aspire, or PSAT), or cumulative GPA of 3.0 (on a 4.0 scale) or better
- **Sophomores:** A student who is in 10th grade and has attained a passing score (proficiency level of “meets or exceeds”) on the 8th grade Minnesota Comprehensive Assessment (MCA) in reading and meets any other course prerequisites or course enrollment standards established by the college, including but not limited to assessment test scores, program admission, or other requirements, may enroll in a career or technical education course.
- **Early Middle College:** A student who is participating in an approved Early/Middle College (EMC) program must meet the same eligibility criteria. 19-21 year old students follow the 12th grade criteria.

Section 2. Eligibility Review Process.

- Evidence presented by students seeking to participate in the PSEO program will be reviewed as part of the admission process. This process shall address each of the criteria in Section 1 of this procedure and shall include faculty participation as appropriate. Students must have successfully completed all PSEO admissions requirements to South Central College.
- Students who are in the 11th or 12th grade who are applying for technical coursework and do not meet the eligibility requirements will be required to demonstrate that they have the ability to successfully complete college coursework at a C level or higher. One or more of the following criteria may be reviewed before an admission decision is determined: recommendations from a high school contact person, coursework taken in high school, GPA, class rank, assessment testing, and Minnesota State recognized nationally standardized, norm-referenced test results. A student who seeks to change their declared major must meet stated PSEO criteria at the time the request is made.

Section 3. Career and Technical Education (CTE) Pathway.

- A 10th-grade student may enroll in one Career Technical Education (CTE) course during the first semester of enrollment. If the student earns a “C” or higher grade in this first course, the student is eligible to take additional post-secondary courses while in 10th grade.

- A student who first enrolls under this provision while in 10th grade and wishes to enroll in general education courses as an 11th or 12th grade student must meet pre-requisite requirements prior to registration.

Subpart B. PSEO Admission Appeal.

An applicant who is denied acceptance into the PSEO program has the right to appeal the decision to the college. The appeal process requires:

- Student must submit a PSEO Admission Appeal Form
- Student must submit a letter of appeal
- Student must submit a letter of support from a school contact person

Appeals must be received prior to the start of the academic term.

Subpart C. PSEO Student Support, Enrollment, and Performance.

Section 1. Student Support.

PSEO students will be provided information that:

1. describes available academic and student support services; and
2. outlines student responsibilities, including their responsibility to communicate with their high school about their academic performance in courses offered through PSEO.

Section 2. Student Enrollment.

Students choosing to enroll in PSEO courses, including PSEO concurrent enrollment courses, shall meet the requirements of Board Policy 3.3 and System Procedure 3.3.1, Assessment for Course Placement, before enrolling. PSEO students must meet age-specific requirements for each course. Students are not eligible to take courses that involve traveling out of the school area (e.g., trips to Colorado, Africa, Germany).

Section 3. Student Performance and Program Effectiveness.

South Central College will collect data about the performance of each student enrolled in courses through PSEO for use in monitoring student progress and measuring PSEO program effectiveness. This data shall be reported to the system office.

Subpart D. PSEO Offered through Concurrent Enrollment Courses.

Section 1. Definition.

As defined in Policy 3.5, a PSEO concurrent enrollment course is a course made available through the PSEO program, offered through a high school, and taught by a high school teacher. As specified in Minnesota Statute §124D.09, concurrent enrollment courses enroll only high school students who may earn both high school and college credit for satisfactorily completed courses.

Section 2. PSEO Concurrent Enrollment Courses.

PSEO concurrent enrollment courses shall be college-level courses approved through the curriculum process, shall meet institutional standards required for accreditation, and shall follow the college approved course outline.

Section 3. Concurrent Enrollment Agreements.

An agreement must be completed to offer one or more concurrent enrollment courses, signed by the appropriate representative of each party which includes the college and the high school district. This agreement shall address at a minimum:

1. qualifications and responsibilities of high school instructors, including documentation of high school teacher qualifications;
2. college support to be provided to the instructor; ;
3. other resources, such as laboratory space and course materials, needed to support quality concurrent enrollment teaching and learning;
4. compliance with student participation; ;
5. financial arrangements for offering the course(s); and
6. duration of the agreement and frequency of its review, which shall be at least annually.

The form of the agreement between a district and a college and the financial arrangements for delivering concurrent enrollment courses shall be in conformance with system-determined practices for concurrent enrollment agreements that exist at the time the agreement is signed.

Section 4. PSEO Concurrent Enrollment Instructor Support.

For each high school teacher approved to provide PSEO instruction as a concurrent enrollment instructor, the college or university shall:

1. provide a college faculty mentor who shall communicate regularly with the concurrent enrollment instructor and monitor assignments, exams, projects, student academic achievement, and instructional effectiveness to ensure that the course meets the learning outcomes contained in the course outline approved by the college and that students are held to college-level standards; and
2. provide each concurrent enrollment instructor with a required orientation to the concurrent enrollment program and on-going opportunities to participate in appropriate campus-based and/or program-specific faculty development activities.

Section 5. PSEO Concurrent Enrollment Instructor Designation.

Designation of a high school teacher to be a concurrent enrollment instructor requires:

- completion of an application by the high school teacher;
- approval by the teacher's principal as part of the application; and
- approval by the college after consultation with faculty in the relevant discipline.

Participation in a concurrent enrollment program by a high school teacher shall require compliance with all expectations for communicating with the college faculty member and participation in any required orientation and professional development activities, as outlined in the concurrent enrollment agreement.

Section 6. PSEO Concurrent Enrollment Instructor Qualifications.

The minimum qualifications for concurrent enrollment instructors shall meet the system established credential fields and minimum qualifications for faculty are designated in Board Policy 3.32 and System Procedure 3.32.1 College Faculty Credentialing.

Section 7. Students in PSEO Concurrent Enrollment Courses.

PSEO concurrent enrollment courses shall not simultaneously enroll PSEO and non-PSEO high school students.

Subpart E. PSEO Student Performance Requirements.

To continue enrollment in the PSEO program a student must:

- Adhere to the Satisfactory Academic Progress policy;
- Achieve a cumulative 2.0 grade point average and complete 67% of registered courses;
- Complete the Post-Secondary Enrollment Options form each semester including signatures of the secondary school representative and a parent/guardian if under 18; and
- Comply with SCC's policies.

Subpart F. Graduating PSEO Students.

PSEO students continuing their education at South Central College after high school graduation need to submit [the Intent to Return](#) Form. An updated high school transcript with posted graduation date will need to be obtained from the high school.

Subpart G. Funding Information.

- Tuition, required course materials, and fees are paid for by the PSEO program. The student is responsible for any other costs incurred at the college (library fees, transportation, optional/recommended course materials, and/or supply/classroom fees not covered in tuition costs).
- The student is financially responsible for tools, clothing, and any consumable supplies.
- The student is financially responsible for any rented course materials not returned by the date established by the College. The student will be charged accordingly for any rented course materials that are not returned on time and in the same condition as when they are picked up.
- PSEO funding will cover additional course fees of up to \$100 per credit.
- Early Middle College students can enroll in developmental courses and are eligible to take classes during the summer.

Part 6. Forms: n/a

Date of Last Review: 02/14/2024

List of related policies or procedures (if any):

- [3.5 Post-secondary Enrollment Options \(PSEO\) Program policy \(System\)](#)
- [3.5.1 Post-secondary Enrollment Options \(PSEO\) Program procedure \(System\)](#)
- [Minnesota Statute 124D.09](#)

- [MN Department of Education Postsecondary Enrollment Options](#)

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Preferred Name Procedure #1B.01.0201

Purpose Statement

South Central College recognizes and supports the members of its community who wish to use preferred names where legally permissible. This procedure outlines a process by which individuals at South Central College may designate a preferred name to be used in the course of College business and education.

Scope/Applicability

This procedure applies to employees and students of South Central College.

Definitions:

Preferred Name: A preferred name is a name that a person has chosen to identify themselves within South Central College that is different, in whole or in part, from their legal name.

Procedures

Employees and students may choose a preferred name that will be used for identification within the System except where legal name is required by System business or legal needs, or where technical constraints exist. Where a preferred name is used, the legal name should not be displayed in the same field. Employee requests for use of a preferred name must be submitted in writing to the Human Resources Office; identification may be requested for security purposes. Student requests for use of a preferred name must be submitted to the Director of Advising & Registration; identification may be requested for security purposes.

Subpart A. Designating a Preferred Name

An individual shall generally be permitted to designate any preferred name, including first, middle and/or last name. South Central College reserves the right to deny an inappropriate preferred name including, but not limited to, those that: avoid legal obligations, misrepresent, or violate other system policies, etc. Preferred names may not be used for commercial or promotional purposes and thus may not be a company name, group name or message.

South Central College shall use preferred names for email address, online directory, class rosters, student ID and other functions where technically and legally possible.

Legal names shall be used by default in all cases except where specifically identified in the preferred name list. This list shall be periodically reviewed and updated as necessary to achieve the overall goal of this procedure, which is to provide for the use of "preferred name where legally permissible."

Subpart B. Implementation

The System Office Information Technology Division will be responsible for implementing the use of preferred names within ISRS. South Central College is responsible for implementing the display of preferred names in their local applications.

Subpart C. Appeals

Should the Chief Human Resources Officer deny the preferred name request, the employee may submit in writing to the President to review and make a final determination. Should the Director of Advising & Registration deny the preferred name request, the student may submit in writing to the Associate Vice President of Student Affairs to review and make a final determination.

Subpart D. Dissemination

Information about this procedure shall be included in new employee orientation, on the HR SharePoint site, and on the Website for student access.

Forms

[Preferred Name Request form](#)

List of Related Procedures or Policies

1B.01.02 Preferred Name procedure (System)

Date of Last Review: 3/5/2020

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Protests and Demonstrations Policy #5.0001

At South Central College, freedom of expression is vital to our shared goal of the pursuit of knowledge, as is the right of all members of the College community to explore new ideas and learn from one another.

Purpose/Authority

To preserve an environment of spirited and open debate, we should all have the opportunity to contribute to intellectual exchanges and participate fully in the life of the College.

Scope/Applicability

This policy is effective on the campuses of South Central College and any other property controlled by the College. Members of the College community, including employees, students, guests and visitors, are subject to this policy

Major Sections

Members of the South Central College community may exercise their First Amendment rights of free speech on the campus. While the College respects the rights and freedoms of every individual, the College encourages individuals to be guided by the principles outlined in the "Civil Behavior in a College Setting" section of this document.

The College maintains its right to place reasonable restrictions on time, place and manner of expression and prohibits any acts that disrupt the normal operations of the College (e.g. teaching, study, research, administration, meetings and/or other authorized and permissible use of College facilities), infringe on the rights and privileges of others, endanger the safety of any person(s) and/or cause damage to property. While the interpretation of these factors may be subjective, the College must reasonably act in order to protect the members of the College community and any College property. Any member of the College community who engages in disruptive conduct will be subject to disciplinary action and any disruptive guests will be referred to local law enforcement.

In accordance with Minnesota State law, participants in a protest or demonstration must not obstruct the free movement of persons about the campus or block access to and from College offices and/or buildings. In the interest of public safety, attention must be paid to the occupancy limits in the space used. Adherence to building closures is expected of people participating in a protest or demonstration within a College building and College officials will require that protestors or demonstrators leave at the time of building closure.

Application of this policy does not preclude the application of other College or Minnesota State policies or regulations that may be warranted by a situation. Furthermore, a protest or demonstration that significantly disrupts the operations of the College or fails to adhere to building closures may lead to arrest and prosecution for violations of City or State ordinances or State or Federal statutes. Members of the College community may also be subject to disciplinary action.

Civil Behavior in a College Setting

The ideas of different members of the College community will frequently conflict, and we do not attempt to shield people from ideas that they may find unwelcome, disagreeable or even offensive. Nor, as a general rule, does the College intervene to enforce social standards of civility. There are, however, some circumstances in which behavior so violates our community's standards that formal College intervention may be appropriate. The College may restrict expression that violates the law or that is otherwise directly incompatible with the functioning of the College. In addition, the College may reasonably regulate the time, place, and manner of expression to ensure that it does not disrupt the ordinary activities of the College.

Advance Arrangements for Public Expression

South Central College recognizes that campuses are marketplaces of ideas. Advance notification enables the College to ensure participants' safety and to assist organizers so the event takes place in a constructive and peaceable manner and does not disrupt the normal functioning of the College.

For events occurring on the campus of South Central College or any other property controlled by the College, organizers are required to request approval from the VP of Finance and Operations at least 48 hours prior to the requested start of any event. Events shall be held in the following designated spaces only:

- North Mankato – White Parking Lot
- Faribault – South Parking Lot outside of Door 15

Placards, Banners and Signs

Placards, banners, and signs are generally allowed but may not be dangerous for others or impede the participation of others in the normal life of the College. If the use of placards, banners, and signs are deemed to be dangerous or impede the participation of others, College officials will require the individuals carrying the placards, banners, or signs to move to a different location or remove their materials.

Protest and Demonstration Duration

Protests and demonstrations are normally permitted until or unless College officials determine that College operations have been compromised and/or the rights of others have been significantly infringed. Interference with instruction or regular scheduled events is viewed as particularly disruptive to the College. While the interpretation of these factors may be subjective, the College must reasonably act in order to protect the members of the College community and any College property.

Counter-protests

A protest, demonstration or event on campus may invite another form of protest, demonstration or event by persons with views that differ. The College respects the rights and freedoms of every individual and the expression of all parties is important. If protected speech activities combine to become disruptive, the College reserves the right to relocate one or both activities or to maintain a perimeter to promote physical safety.

Speech That Is Not Protected

The First Amendment to the United States Constitution does not protect conduct that threatens the health, safety or welfare of persons. Any speech that inflicts or threatens harm, causes a breach of the peace, incites an individual(s) to commit a crime or causes panic is not considered protected speech. While the interpretation of these factors may be subjective, the College must reasonably act in order to protect the members of the College community and any College property.

Non-discrimination Statement

In keeping with its long-standing traditions and policies, South Central College considers students, employees, applicants for admission or employment, and those seeking access to College programs on the basis of individual merit. The College does not discriminate with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, gender identity, gender expression or other protected classes as required by law (including Title IX of the Education Amendments of 1972).

The Chief Human Resource Officer is the College official responsible for coordinating compliance with this Notice of Nondiscrimination.

Date of Last Review: 10/13/2020

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Satisfactory Academic Progress Policy #2.0901

Part 1. Policy Statement

South Central College, Minnesota State and Federal and State law require that a student make satisfactory academic progress towards a degree or certificate to attend the College and remain eligible for financial aid.

Part 2. Purpose/Authority

The standards defined below are cumulative and include all periods of enrollment, whether or not a student received financial aid. Students bear primary responsibility for their own academic progress and for seeking assistance when experiencing academic difficulty. Counseling, tutoring, mentoring, special programs and outside referrals are all available.

Part 3. Scope/Applicability: n/a

Part 4. Definitions:

Academic Amnesty/Renewal. Attempted credits and grades earned that are not used in the calculation of a student's grade point average. Also known as academic renewal, academic forgiveness, and fresh start. Note: Academic amnesty does not apply to a student's financial aid eligibility.

Academic Plan. A student who successfully appeals for reinstatement will be required by South Central College to complete, during their probationary period, specific requirements contained in an academic plan developed for that student by South Central College. At a minimum the academic plan will require a student to achieve a 2.50 GPA during their probationary term and/or a 75% completion rate during their probationary term, depending upon the deficiency.

Developmental Coursework. Noncredit or reduced credit remedial courses at the high school level or above designed to prepare students for study at the postsecondary level (as opposed to preparatory coursework, which prepares students for a given program). Note: Students enrolled solely in a remedial program are not considered to be in a program eligible for financial aid. If acceptance into an eligible program is contingent on completing remedial work, students cannot be considered enrolled in that program until they complete the remedial work.

Evaluation Period. South Central College will evaluate satisfactory academic progress after each term which includes fall, spring and summer. All students with registered credits during a term will be evaluated at the end of that term.

Maximum Time Frame. All financial aid recipients are expected to complete their degree/certificate within an acceptable period of time. The maximum time frame for financial aid recipients is 150% of the published credit length of the program.

Remedial/Developmental Credits. Credits earned from developmental courses that are numbered 0-999. Referred to as "remedial" credits in federal financial aid regulations.

Warning Status. Students on warning are eligible to register and receive financial aid for one evaluation period despite a determination that the student has not met either an institution's grade point average standard, or completion percentage standard, or both.

- If at the end of the warning period a student who has been on warning status has met both the institution's cumulative grade point average and completion percentage standards, the warning status is ended and the student is returned to good standing.

- If at the end of the warning period a student who has been on warning status has not met either the institution's cumulative grade point average or completion percentage standards, the institution shall suspend the student.

Suspension Status. A student on suspension status is not eligible to register or receive financial aid. Students who have been suspended may regain their eligibility only through the institution's appeal process or when they are again meeting the institution's satisfactory academic progress cumulative grade point average and completion percentage standards.

Probationary Status. A student who has successfully appealed shall be placed on probation for one evaluation period. If, at the end of the next evaluation period, a student on probation status:

- Has met the institution's cumulative grade point average and completion percentage standards, the student shall be returned to good standing.
- Has not met the institution's cumulative grade point average and completion percentage standards but has met the conditions specified in his/her academic plan, the student shall retain his/her financial aid and registration eligibility under a probationary status for a subsequent evaluation period.
- Has not met the institution's cumulative grade point average and completion percentage standards and has also not met the conditions specified in his/her academic plan, the student shall be re-suspended immediately upon completion of the evaluation.

Part 5. Major Sections:

Subpart A. Qualitative Measure of Progress

All students are required to meet or exceed a cumulative earned grade point average (GPA) of 2.00.

Subpart B. Quantitative Measure of Progress

- **Completion Percentage** - All students are required to earn a minimum of 67% of their cumulative registered/attempted credits. Grades of F, FN, FW, I, N, NC, W, Z and IP (or blank/missing) are treated as registered credits but NOT earned credits and thus negatively impact the percent of completion.

Percent earned = cumulative earned credits /cumulative registered credits

- **Maximum Time Frame** - All financial aid recipients are expected to complete their degree/certificate within an acceptable period of time. The maximum time frame for financial aid recipients is 150% of the published credit length of the program. Financial aid recipients may continue to receive aid through their cumulative registered credits that equal 150% of the required number of credits needed to complete their degree/certificate at South Central College.

Subpart C. Evaluation

South Central College will evaluate satisfactory academic progress after each term which includes fall, spring and summer. All students with registered credits during a term will be evaluated at the end of that term.

Subpart D. Failure to Meet Standards

Warning

1. **Warning Status.** If at the end of the evaluation period a student has not met either an institution's GPA or completion percentage standard, the student will be placed on warning for one evaluation period. Students on warning are eligible to register and receive financial aid.
2. **Reinstatement of students on warning status.** If at the end of the warning period a student who has been on warning has met both the cumulative GPA and cumulative completion percentage standards, the warning status is ended and the student is returned to good standing.

Suspension of Students on Warning Status

If at the end of the warning period a student who has been on warning status has not met both the institution's cumulative grade point average and completion percentage standards, the student shall be suspended. Students on suspension are not eligible to register or receive financial aid.

Suspension of Students Not on Warning Status

1. **Suspension for Exceeding the Maximum Time-Frame.** If at the end of the evaluation period a student has failed to meet the institution's standard for measurement of maximum time-frame, the student shall be suspended from financial aid eligibility.
2. **Suspension for Inability to Meet Program Requirements within the Maximum Time Frame.** If at the end of the evaluation period the institution determines it is not possible for a student to raise her or his GPA or course completion percentage to meet the institution's standards before the student completes their program of study at South Central College, the student shall be suspended from financial aid.
3. **Suspension for Extraordinary Circumstances.** Institutions may immediately suspend students in the event of extraordinary circumstances, including but not limited to previously suspended (and reinstated) students whose academic performance falls below acceptable standards during a subsequent term of enrollment; students who register for courses, receive financial aid, and do not attend any classes; and students whose attendance patterns appear to abuse the receipt of financial aid.

4. **Suspension at another Minnesota State Institution.** Students who have been suspended from another Minnesota State institution within the past academic year shall be denied admission at South Central College but may contact the Admissions Office for the appropriate appeal form.

Subpart E. Appeals & Probation

Appeals:

A student who fails to make satisfactory academic progress and is suspended has the right to appeal based on special, unusual or extenuating circumstances causing undue hardship such as death in the family, student's injury or illness or other special circumstances as determined by the institution.

- Appeals are due prior to the first day of the semester the student wishes to be reinstated for financial aid and/or enrollment.
- Appeals must be submitted in writing with a form(s) available from the College.
- The appeal must include an explanation of the special, unusual or extenuating circumstances causing undue hardship that prevented the student from making satisfactory academic progress.
- The appeal must also include what has changed in the student's situation that would allow the student to demonstrate satisfactory academic progress at the end of the next evaluation period.
- Supporting documentation beyond the written explanation is strongly encouraged.
- Initial consideration of appeals will be undertaken by the Director of Financial Aid, Registrar or designee. If denied, it may be resubmitted, with additional documentation, for consideration by an appeals committee.
- Appeals that are approved must contain an academic plan that, if followed, ensures the student would be able to meet satisfactory academic progress standards by a specific point in time.
- All academic plans put in place for GPA deficiency will require a minimum term GPA of 2.50 during any probationary term. All academic plans put in place for % completion deficiency, will require a term completion percentage of 75% during any probationary term.

Probationary Status:

A student who has successfully appealed shall be placed on probation for one evaluation period. If, at the end of the next evaluation period, a student on probation status:

- Has met the institution's cumulative grade point average and completion percentage standards, the student shall be returned to good standing.
- Has not met the institution's cumulative grade point average and completion percentage standards but has met the conditions specified in his/her academic plan (2.50 term GPA and/or 75% term completion rate, depending upon the deficiency), the student shall retain his/her financial aid and registration eligibility under a probationary status for a subsequent evaluation period.
- Has not met the institution's cumulative grade point average and completion percentage standards and has also not met the conditions specified in his/her academic plan, the student shall be re-suspended immediately upon completion of the evaluation.

Subpart F. Notifications of Status and Appeal Results

Status Notification

Students are notified in writing (letter or email) when the evaluation of satisfactory academic progress results in warning, suspension, or probation.

The notice includes the conditions of the current status and the conditions necessary to regain eligibility for registration and financial aid. Notice of suspension also includes the right and process necessary to appeal suspension.

Appeal Result Notification

Students are notified in writing (letter or email) of the results of all appeals. Approved appeals include the conditions under which the appeal is approved and any conditions necessary to retain eligibility for registration and financial aid.

Denied appeals include the reason for denial and the process to appeal the denial.

Subpart G. Reinstatement

A student who has been suspended from financial aid eligibility may be reinstated after an appeal has been approved or the minimum cumulative GPA and completion percentage standards have been achieved.

A student suspended from the College may be reinstated to enroll for classes after not attending South Central College for one semester. Subsequent suspensions will be one academic year.

Neither paying for their own classes nor sitting out a period of time is sufficient in and of itself to re-establish a student's financial aid eligibility.

Subpart H. Treatment of Grades and Credits

Credits: The unit by which academic work is measured.

Registered (Attempted) Credits: The total number of credits for which a student is officially enrolled at the end of the registration drop period each term.

Cumulative Registered Credits: Cumulative registered credits are the total number of credits registered for all terms of enrollment at the college, including summer terms and terms for which the student did not receive financial aid.

Earned Credits: Earned credits include grades of A, B, C, D and P. They are successfully completed credits that count towards the required percentage of completion (67%) as defined by the quantitative measure.

Attempted, NOT earned: Grades of F, FN, FW, I, N, NC, W, Z and IP (or a blank/missing) will be treated as credits attempted but NOT successfully completed (earned).

- **Academic Review:** Credits for which a student has been granted academic review WILL be included in all financial aid satisfactory academic progress measurements.
- **Audited Courses:** Audited courses are not aid eligible courses and are not included in any satisfactory academic progress measurements.
- **Consortium Credits:** Consortium credits are those credits for which a student is registered at another college, which are accepted in transfer by this college and are included for purposes of processing financial aid at this college. These credits are included in all satisfactory academic progress measurements.
- **Remedial/Developmental Credits:** Developmental credits are those awarded for remedial course work (below 1000 level). Students may receive financial aid for developmental credits up to a maximum of 30 credits hours (excluding English Language Learner).

These credits are included in grade point average measurement and excluded from completion percentage. Up to 30 developmental credits are excluded from the maximum timeframe calculation.

- **Repeat Credits:** Repeat credits are credits awarded when a student repeats a course in order to improve a grade. A student may repeat a class as allowed by the institution. The institution will determine, based on its Repeated Courses policy, which grade will become the grade calculated in the GPA. All repeated credits are included in the percent of completion and maximum time frame calculations.
- **Transfer Credits:** Transfer credits are credits earned at another college which are accepted by this college. Transfer credits which are accepted by South Central College and are applicable to the student's program of study shall be counted as credits attempted and completed for calculation of completion percentage and maximum time frame.

Grades associated with these credits are not included in calculating GPA.

- **Withdraw:** The mark of "W" (withdrawal) is assigned when a student withdraws from a class after the drop period. It is not included when calculating grade point average or earned credits. Thus, it does not impact GPA but does negatively impact earned credits and, therefore, negatively impacts the student's percent of completion.
- **Test Out:** Credits earned through test out do not count toward the total credits enrolled per term for financial aid purposes, but credits are used when calculating student's percent of completion and maximum time frame.
- **Credit for Prior Learning (CPL):** Credits earned from previous experience are not eligible for financial aid, but credits are used when calculating student's percent of completion and maximum time frame.
- **Incompletes:** The mark of "I" (incomplete) is a temporary grade which is assigned only in exceptional circumstances. It will be given only to students who cannot complete the work of a course on schedule because of illness or other circumstances beyond their control. A grade of "I" is not included when calculating grade point average or earned credits. Thus, it does not impact GPA but does negatively impact earned credits and, therefore, negatively impacts the student's percent of completion.

List of related policies or procedures (if any):

2.09 Academic Standing and Financial Aid Satisfactory Academic Progress policy (System)
2.09.01 Financial Aid Satisfactory Academic Progress procedure (System)
3.0005 Grading policy
3.0005.0001 Grading procedure
3.0006 Incomplete Grades policy
3.0006.0001 Incomplete Grades procedure
3.0001 Academic Forgiveness policy

Date of Last Review: 10/18/2021

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Service Animals Guideline #6.1101.00.0001

Purpose Statement

The purpose of this policy is to provide for the health and safety of South Central College students, faculty, staff, and visitors and for the protection of the college's property and assets.

Purpose/Authority

This policy is intended to allow service animals on campus in a way that provides for the restraint of these animals and also provides for some protection for those on campus from breeds that have a history of dangerous behavior.

Scope/Applicability

This policy applies to all on-campus, College-controlled properties and facilities. Pets on campus can pose a significant risk to the college community. This policy standardizes the College's position on the management of service animals while on property.

Definitions

- **College-Controlled Property:** property that is owned, operated, and/or maintained by the College.
- **Service Animal:** a guide dog, signal dog, or other animal individually trained to do work or perform tasks for the benefit of an individual with a disability. Police K-9s are also considered a service animal as well as other animals that work for emergency personnel.
- **Pets at Large:** an animal that is either unattended and/or unrestrained by its owner.

Major Sections

Section 1. Health and Safety Concerns

Pets can pose various health and safety concerns to the campus community such as allergic reactions to animal dander, excessive noise, animal bites, and disease transmission (i.e., fleas, ticks, parasites, viruses, bacteria, etc.). Individuals with a disability that requires the use of a service animal are at particular risk. For example, a dog running at large poses a hazard to an individual using a service dog, should there be a confrontation between the two animals.

Subpart 2. Inside/Outside Facility Guidelines

It is prohibited to bring dogs, cats, or other pets inside any College-controlled buildings, except for the service animals covered in the Service Animal Policy. While on College-controlled properties, pets must be maintained on a leash of six feet or shorter, on a restraining harness, or in a caged enclosure. With the exception of the service animals, no pets should be allowed in/on any athletic fields. Pets will not be allowed (leashed or unleashed) at any special events or college functions with the exception of any specific event that has been approved by the Security Director and/or President's Office.

Service animal owners are responsible for cleaning up any messes made by their animal. Anyone who brings a service animal on College-controlled property assumes all financial responsibility for any damages to property or injury to individuals caused by the animal.

Pets may not be tethered to College buildings, structures, motor vehicles, trees, railings, light poles, benches, posts, or other structures.

Subpart 3. Failure to Comply

Sub-Section A. Prohibited Animals on College-controlled Property

Any prohibited animals on a College-controlled property must be removed immediately. If a prohibited animal is observed on the College-controlled property, the owner/employee may face legal measures by appropriate authorities/disciplinary measures by the College's Human Resource Department. SCC Security Department will assist in enforcing this policy.

Sub-Section B. Unattended or Unrestrained Animals

If an unrestrained/unattended animal is observed, a reasonable attempt will be made to locate the animal's owner. If the owner is located, he/she may face legal/disciplinary measures by appropriate authorities, which may include the College's Human Resource Department. Security Department will assist in enforcing this policy. If attempts to find the animal's owner are unsuccessful, the local animal control will be contacted; and they will remove the animal from college property.

Sub-Section C. Property Damage

The College will seek restitution for any animal-related damage to College-controlled property, facilities, or grounds. The repair or replacement cost of damaged property is the sole responsibility of the owner of the animal that caused the damage.

Date of Last Review: 10/24/2023

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Sexual Violence Policy and Procedure for Students and Employees - Minnesota State #1.B.03

Sexual Violence Resources

[Prevention and Reporting](#)

South Central College is committed to supporting victims of sexual assault, domestic violence, and stalking. As such, the college adheres to the Minnesota State Sexual Violence [Policy 1B.3](#) and [Procedure 1B.3.1](#).

Complaints of discrimination and harassment should be directed to:

Judy Endres

Title IX Coordinator

Faribault Campus – 1225 Third Avenue; Faribault, MN 55021; office located in Student Affairs Center

North Mankato Campus – 1920 Lee Boulevard; North Mankato, MN 56003; office located in Student Affairs Welcome Center

Tel: 507-389-7531

Judy.Endres@southcentral.edu

Or by using [SCC's Confidential Report Form for Sexual Misconduct, Dating/Relationship Violence, Stalking Form](#).

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Star Alert Policy #5.2403

Policy Statement

This policy is to communicate the process South Central College will utilize to notify students, faculty, and staff who wish to participate of emergencies and weather closings at the institutions.

Purpose/Authority

This procedure applies to all South Central College employees, students, and visitors on campus.

Scope/Applicability

South Central College, with campuses in Faribault and North Mankato, utilizes a wireless emergency notification system for students, faculty and staff called 'Star Alert'. The system utilizes text and email messaging to inform registrants of crisis situations impacting the campus community.

Based on an opt-in registration process, students, faculty and staff are invited to participate by registering their cell phone numbers and email addresses. Spam-free and advertiser free, the Star Alert is only used in real emergencies and weather closings. If the campus is experiencing a crisis situation, is closed, classes are cancelled or postponed, or other critical information must be conveyed, it will be communicated via the Star Alert system.

Forms

Online registration: <https://southcentral.bbcportal.com/Entry>

List of Related Policies or Procedures

- 5.2401 Emergency Response, Notification and Evacuation policy
- 5.2404 Student Emergency policy
- 5.2404.0001 Student Emergency procedure
- 4.04 Weather / Short Term Emergency Closings policy (System)

Date of Last Review: 1/25/15

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Student Accommodation Procedure

Part 1. Purpose Statement:

South Central College believes that diversity is essential to its daily operations and seeks to promote access and opportunity for all. South Central College recognizes that disability is an aspect of diversity and students with disabilities must be ensured equitable access to programs, opportunities, and activities at the College.

This procedure outlines how students with disabilities can request accommodations, continue to receive accommodations, and grieve accommodation decisions.

Part 2. Scope/Applicability

This procedure applies to students who need accommodations due to a disability.

Part 3. Definitions

Accommodations - Academic accommodations are legally mandated modifications, adjustments, auxiliary aids, and/or services that give a student with a disability an equal opportunity to benefit from the educational process. Reasonable accommodations may include modifications to: rules, policies, or practices; the removal of architectural, communication, or transportation barriers; provision of auxiliary aids or the provision of equally effective programs, services, or activities. In accordance with the Americans with Disabilities Act, accommodations will not be provided 1) for personal devices or services even though the individual may be a qualified individual with a disability, or 2) that result in a fundamental alteration in the nature of a service, program, or activity or in undue financial or administrative burdens.

Access - a qualified individual with a disability will not be excluded from participation in or be denied the benefits of the programs, services, or activities

Individual with a disability - Any person who has a physical or mental impairment which materially limits one or more of the person's major life activities. Anyone with a record of such impairment, which means they have a history of or have been classified as having a mental or physical impairment that materially limits one or more major life activities.

Part 4. Requesting an Accommodation

Requests for accommodation must be initiated by the student.

1. To receive an accommodations and other support, students must make an appointment with Disability Services staff. Appointments can be made by calling 507-389-7222, emailing ds@southcentral.edu or using links on the [Disability Services website](#).
2. At this meeting Disability Services staff will work with the student to determine if the student is eligible for services, explore what barriers the student is experiencing or anticipating, and determine ways to remove barriers through accommodations.
 - To establish if a student has a disability, Disability Services may request documentation of the disability from a doctor, therapist, or school staff stating that the student has a disability. Disability Services staff will ensure that documentation remains confidential following the Federal Educational Rights and Privacy Act (FERPA).
3. Faculty will be notified by email of an approved student accommodation for students registered in their class that requires their involvement.
 - Some accommodations require additional communication with Disability Services. For example, students with testing accommodations will need to make testing appointments. Accommodations processes will be outlined by Disability Services staff and outlined in the accommodation emails.
4. To continue receiving services, students must request accommodation each semester. Reminders and instructions to renew are sent to students via email. Meeting with staff is not required for renewal unless changes to accommodations are requested.

Any supports or changes made do not apply to past work, so it is important to meet with Disability Services as soon as possible. The same academic standards must be met by all students; basic requirements and standards cannot be changed by accommodations.

Part 5. Appeal

This grievance process can be used in cases when a student has followed the procedures to request accommodations and the request has been denied or otherwise not provided.

1. Contact the Director of the Academic Support Center by writing or emailing within 30 days of the incident.
2. If an informal resolution is not reached through step one, students should make a formal complaint using the SCC Student Complaint Form. Complaints submitted through this form follow the [Complaint/Grievance Procedure](#).

Students also may file a complaint directly with the [U.S. Department of Education's Office for Civil Rights](#) or with the [Minnesota Department of Human Rights](#). The Statute of Limitations for filing a complaint with the Office for Civil Rights is 180 days from the date the incident occurred.

Part 6. Forms

[SCC Complaint Form](#)

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Student Background Policy (Health and Child Care Majors)

#2.0001

Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a health care or child care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care or child care facility. Failure to participate in a clinical placement required by the academic program could result in ineligibility to qualify for a degree in that program.

AASC 1/25/13

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Student Background Procedure #2.00.0001

Purpose Statement

Minnesota Department of Human Services (who requires a background study):

Background studies are required for certain people who provide [direct contact services](#) to vulnerable adults and children. State law requires people who provide direct contact services in certain health and human service settings to have a background study completed by the Department of Human Services (DHS). Direct contact services may apply to [volunteers](#) if they provide unsupervised services. DHS background studies are also required for certain others, such as guardians and conservators, guardians ad litem, people who provide foster care for children, and people who seek to adopt a child.

If you disagree with the results of your background study, contact the Minnesota Department of Human Services and/or a member of the Student Success team at advising@southcentral.edu.

Definitions

- **Background Study:** The background study determines whether a person committed an act that would disqualify him/her from providing direct contact services to children or vulnerable adults.
- **Direct Contact:** Direct contact services means providing face-to-face care, training, supervision, counseling, consultation, or medication assistance to clients in health and human services programs.

Procedures

- The requirement of student background studies will be included in SCC program handbooks web sites and SharePoint sites.

Date of Last Review: 2/18/2021

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Student Code of Conduct Policy #3.0601

Part 1. Policy Statement:

Students are expected to conduct themselves in accordance with college policy and generally accepted norms of conduct to preserve a safe and supportive learning environment. Students will be afforded appropriate due process in the resolution of any allegation(s) of violations of the conduct. Students found responsible for violations are subject to sanctions which may include removal from course(s) or suspension/expulsion from the college. Disciplinary action will be handled in an expeditious manner while providing due process.

Allegations of discrimination, harassment, sexual violence, fraud or dishonest acts as defined in Minnesota State System policy 1B.01, 1B.02, 1B.03, 1B.04 must be resolved pursuant to System policy. Allegations of academic dishonesty will be resolved in accordance with 3.0602 Academic Dishonesty policy.

Part 2. Purpose/Authority:

The South Central College (SCC) Student Code of Conduct defines expectations for appropriate conduct to support a productive learning environment. The Student Code of Conduct includes an outline of students' right to due process, and sanctions resulting from violations.

Part 3. Scope/Applicability:

The Student Code of Conduct shall apply to conduct that occurs on College premises, at College sponsored activities, and to off-campus in the following circumstances:

- Hazing is involved; or
- The violation is committed while participating in a college sanctioned or sponsored activity; or
- The victim is a member of the college community; or
- The violation constitutes a felony under state or federal law; or
- The violation adversely affects the educational, research, or service functions of the College.

The College has the right to take necessary and appropriate action to support and protect the safety and well-being of the College community. SCC students are expected to abide by local, state and federal laws and College rules. Should the violation of civil or criminal law involve college interests, the College has the right to proceed with disciplinary action without regard to civil or criminal proceedings.

Part 4. Definitions:

Hazing is defined as an act which endangers the mental or physical health or safety of a person, subjects a person to public humiliation or ridicule, or which destroys or removes public or private property for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a student group, organization, or athletic team. The expressed or implied consent of the victim will not be a defense. Apathy or acquiescence in the presence of hazing are not neutral acts; they are violations of this rule.

Part 5. Major Sections:

Subpart A. Standards of Conduct:

SCC students must conform to College rules and regulations governing personal conduct on all campuses. Violations of such rules and regulations, for which students are subject to disciplinary action, include, but are not limited to, the following:

- Violation of any federal, state or local law.
- Violation of any College or Board policy, rule or regulation published in hard copy or available electronically on the College or Minnesota State website.
- Dishonesty, including but not limited to the following:
 - all forms of academic dishonesty including cheating and/or plagiarism;

- furnishing false information to any College official, faculty member or office;
- forgery, alteration or misuse of any College document, record or instrument of identification;
- use of any unauthorized assistance in taking quizzes, tests or examinations
- use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems or carrying out other assignments;
- acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff; or
- engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.
- Disruption or obstruction of teaching, research, administration, disciplinary proceedings, routine College activities, other authorized College activities or other unauthorized activities on or off campus. Disruptive behavior is generally defined as activity that:
 - Interferes with instruction
 - interferes with other student's rights to pursue learning
 - violates college policies
 - violates local, state, or federal laws, or
 - generally interferes with the smooth operation of the college.

Note: Faculty reserve the right to define specifically their interpretation of disruptive behavior in their class syllabi based on the preceding guidelines.

- Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or other conduct, in person or electronically, which threatens or endangers the health or safety of any person.
- Attempted or actual theft of and/or damage to property of the College or property of a member of the College community or other personal or public property, on or off campus.
- Hazing, for the purpose of initiation, admission, affiliation or membership in a group or organization, which endangers the mental or physical health or safety of another person or which destroys or removes public or private property.
- Failure to comply with directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
- Unauthorized possession, duplication or use of keys or other access modes to any College premises or unauthorized entry to or use of College premises.
- Use, possession, manufacturing or distribution of cannabis, narcotics or other controlled substances except as expressly permitted by law.
- Use, possession, manufacturing or distribution of alcoholic beverages (except as expressly permitted by College or Minnesota State regulations), or public intoxication, or violation of Minnesota State System Policy 5.18 and System Procedure 5.18.01 on Alcoholic Beverages and Controlled Substances on Campus. Alcoholic beverages may not, in any circumstance, be used by, possessed by or distributed to any person under twenty-one (21) years of age.
- Possession or use of firearms, explosives, other weapons, or dangerous chemicals on College premises, even if legally possessed, in a manner that harms, threatens or causes fear to others. Minnesota State System Policy 5.21 states: "Students are prohibited from possessing or carrying a firearm while on system property, regardless of whether the student has a permit to carry a firearm, except as otherwise provided in this policy."
- Participating in an on-campus or off-campus demonstration, riot or activity that disrupts the normal operations of the College and/or infringes on the rights of other members of the College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.
- Conduct that is disorderly, lewd or indecent; breach of peace; or aiding, abetting or procuring another person to breach the peace on College premises or at functions sponsored by, or participated in by, the College or members of the academic community. Disorderly conduct includes but is not limited to: Any unauthorized use of electronic or other devices to make an audio or video record of any person while on College premises without his/her prior knowledge, or without his/her effective consent when such a recording is likely to cause injury or distress. This includes but is not limited to surreptitiously taking pictures of another person in a gym, locker room or restroom.
- Sexual violence offenses are processed under Minnesota State System Policy 1B.03 and Procedure 1B.03.01 on sexual violence
- Any violation of the College's IT policies and procedures or Minnesota State System Policy 5.22 and Procedure 5.22.01 on acceptable use of computers and Information Technology resources.
- Abuse of the student conduct system, including but not limited to:
 - Failure to obey the notice to appear for a meeting or hearing as part of the student conduct system;
 - Falsification, distortion, or misrepresentation of information before the Student Conduct Board;
 - Disruption or interference with the orderly conduct of Student Conduct Board proceedings;
 - Initiating a Student Code of Conduct proceeding in bad faith;
 - Attempting to discourage an individual's participation in, or use of, the student conduct system;
 - Attempting to influence the impartiality of a member of a Student Conduct Board prior to, and/or during the course of, the Student Conduct Board proceeding;
 - Harassment (verbal or physical) and/or intimidation of a member of a Student Conduct Board prior to, during, and/or after a Student Code of Conduct proceeding;
 - Failure to comply with the sanction(s) imposed under the Student Code of Conduct;
 - Influencing or attempting to influence another person to commit an abuse of the Student Code of Conduct system.

Subpart B. Violation of Law and College Discipline:

College disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both criminal law and this code (that is, if both possible violations result from the same factual situation) without regard to the pendency of civil or criminal

litigation in court or criminal arrest and prosecution. Proceedings under this code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off campus at the discretion of the Administrator.

Determinations made or sanctions imposed under this code shall not be subject to change because criminal complaints arising out of the same facts giving rise to violation of College rules were dismissed, reduced or resolved in favor of or against the criminal law defendant.

Subpart C. Maintenance of Records:

Annually, and upon amendment, the colleges will notify students of the availability and location of the Student Code of Conduct and a copy of the code will be available on the college website.

Part 6. Forms: n/a

Date of Last Review: 02/14/2024

List of related policies or procedures:

- 2.0003 Student Safety & Health policy
- 3.0101 Student Rights & Responsibilities policy
- 3.0602 Academic Dishonesty policy
- 3.0801 Student Complaint / Grievance policy
- 3.0801.0001 Student Complaint / Grievance procedure
- 5.1801 Student Drug and Alcohol Use policy
- 5.2601 Data Governance policy
- 5.2601.0001 Data Governance procedure
- 1B.01 Education policy (System)
- 1B.02 Affirmative Action in Employment policy (System)
- 1B.03 Sexual Violence policy (System)
- 1B.03.01 Response to Sexual Violence procedure (System)
- 1B.04 Access and Accommodation for Individuals with Disabilities policy (System)
- 3.01 Student Rights & Responsibilities policy (System)
- 3.06 Student Conduct policy (System)
- 3.06.01 Student Conduct procedure (System)
- 3.08 Student Complaints and Grievances policy (System)
- 3.08.01 Student Complaints and Grievances procedure (System)
- 5.18 Alcoholic Beverages or Controlled Substances on Campus policy (System)
- 5.18.01 Alcoholic Beverages or Controlled Substances on Campus procedure (System)
- 5.21 Possession or Carry of Firearms policy (System)
- 5.22 Acceptable Use of Computers and Information Technology Resources policy (System)
- 5.22.01 Acceptable Use of Computers and Information Technology Resources procedure (System)

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Student Code of Conduct Procedure # 3.0601.0001

Part 1. Purpose:

South Central College has established procedures to implement this Student Code of Conduct Policy.

Part 2. Scope/Applicability:

This procedure applies to all SCC Students.

Part 3. Definitions:

College means South Central College.

Administrator means the person designated by the College President to administer the Code of Student Conduct and to impose sanctions upon students found to have violated the Code of Student Conduct.

Advocate means an individual who advises a student during the process.

Student includes all persons who:

- Are enrolled in one or more courses, either credit or non-credit through the College.
- Withdraw, transfer, or graduate after an alleged violation of the student Code of Conduct.
- Are not officially enrolled for a particular term but who have a continuing relationship with the college.
- Have been notified of their acceptance for admission or have initiated the process of application for admission or financial aid.

Respondent means any student accused of violating the Student Code of Conduct.

College premises include all land, buildings, facilities and other property in the possession of or owned, used or controlled by the College, including adjacent streets and sidewalks. The Student Code of Conduct applies to all locations rented by the College, including facilities as part of an Education Abroad program.

Complainant means any person who submits a complaint alleging that a student violated the Code of Conduct. A student who believes that s/he has been a victim of another student's misconduct will have the same rights under this Code as are provided to the Complainant, even if another member of the College community submitted the complaint itself.

Member of the college community includes any person who is a student, staff or faculty member, administrator or any other person employed by the college.

Organization means any number of persons who have complied with the formal requirements for College registration as a Student Senate recognized club or Student Life funded group.

Preponderance of evidence means a standard of responsibility that more likely than not the Code has been violated.

Student Conduct Board means any person or persons authorized by the Administrator and appointed by the SCC Student Senate to determine whether a student has violated the Student Code of Conduct and to recommend sanctions that may be imposed or to consider an appeal as to whether a student has violated the Code or the sanctions imposed by the Administrator.

Part 4. Procedures:

Subpart A. Filing a Complaint:

Any member of the college community may submit in writing any concern that a student or organization has violated the Student Conduct Code. The submitter shall be informed of rights in accordance with applicable privacy laws and policies including, but not

limited to the Minnesota Government Data Privacy Act (MGDPA), the federal Family Educational Rights and Privacy Act (FERPA) and South Central College's Data Privacy Policy.

Following the submission of a concern against a student or student organization, the Administrator shall conduct an investigation of the allegations. The process will include the following practices:

1. If the concern seems unwarranted, the Administrator may discontinue the proceedings.
2. If there is sufficient evidence, the Administrator shall give the student written notice of the specific concern against him/her and the nature of the evidence available to support that concern, as well as a copy of the Student Code of Conduct.
3. Informal Meeting: The accused student will be invited to attend an informal meeting with the Administrator where the accused student shall have the opportunity to accept responsibility and resolve the alleged violation or present a defense against the complaint. If the student accepts responsibility and agrees to a sanction, there shall be no subsequent proceedings. Within a reasonable time period following the meeting, the Administrator will inform the accused student in writing of his/her decision, whether a violation of the code was established by a preponderance of evidence and any applicable sanction as well as options available for an appeal and/or a formal hearing.
4. Failure to Appear: If the accused student fails to appear for the informal hearing, the Administrator may proceed to review and act upon the complaint in his/her absence and shall notify the student in writing of an action taken.

Subpart B. Formal Hearing:

The Student Conduct Board is made up of members of the college community. The Administrator is responsible for convening a Student Conduct Board and for providing appropriate training to members of the Student Conduct Board.

In hearings involving more than one accused student or organization, the Administrator, at his/her discretion, may permit the hearing concerning each student to be conducted either separately or jointly.

Section 1. Composition of Board:

Student Conduct Board (SCB) shall include six members who have been trained in conduct proceedings; three students (appointed by the Student Senate, one faculty member (appointed by the AASC), one staff member and one administrator (designated by the Vice President of Student Affairs). The Administrator shall be present and serves as a non-voting chairperson to advise the hearing process.

Section 2. Written Notice:

Students or organizations referred for a formal hearing shall be given five days of notice in writing of the time, place, and date of the hearing. A student's or organization's failure to appear at the hearing shall not prevent the hearing from proceeding as scheduled.

Within a reasonable time prior to the hearing, the student must be informed in writing of a) the complaint, b) the evidence to be presented against him/her, c) a list of witnesses, and d) the nature of their testimony.

Section 3. Representation:

The student shall be given the opportunity to speak on own defense, to present witnesses and to question any witnesses and to have an advocate present. The advocate may provide advice to the student, but may not participate in any questioning. When there is likelihood that a student involved in conduct proceedings will face criminal prosecution for a serious offense, it may be advisable that the student have an attorney as the advocate.

Section 4. Conducting the Hearing:

The formal hearing will be conducted as follows:

1. The Administrator presents an opening statement of the charges and a summary of the supporting evidence.
2. The Respondent presents an opening statement of testimony or evidence to refute the charges.
3. The Administrator calls witnesses for the College. At the conclusion of each witness statement, the Respondent and/or members of the panel will have the opportunity to ask questions of the witness.
4. The Respondent will call witnesses to speak on his/her behalf. At the conclusion of each witness statement, the Administrator and/or the panel will have the opportunity to ask questions of the witness.
5. The Administrator provides concluding remarks.
6. The Respondent provides concluding remarks.
7. In a closed session, the Student Conduct Board shall review the evidence and witness testimony. Using the preponderance of evidence standard, the Student Conduct Board shall determine by majority vote whether it is more likely than not a violation of the student conduct code occurred. If it is determined that a violation did occur, the Student Conduct Board recommends sanctions to the Administrator who will impose the appropriate sanctioning.
8. Students can request accommodations through the Disability Office.

Section 5. Conclusions:

A written notice of findings and conclusions by the Student Conduct Board shall be provided to the student within a reasonable time not to exceed 15 instructional days after the hearing. The notice shall inform the student of any sanction to be imposed. The notice shall

also contain information regarding any applicable appeal process.

Section 6. Safety Accommodations:

The hearing may accommodate concerns for the personal safety, well-being and/or fears of direct contact with the complainant, alleged student violator and/or other witness. If necessary, SCB will provide for the presence of law enforcement and/or security, separate facilities, use of a visual screen, and/or by participation by telephone, videophone, closed circuit television, video conferencing, videotape, audio tape, written statement or other means, where and as determined in the sole judgement of the administrator to be appropriate.

Subpart C. Sanctions:

The following sanctions may be imposed upon any student or organization found to have violated the Student Code of Conduct. Written notice of sanctions will be in an archive accessible by the administrator.

- **Warning** - A notice in writing to the student that the student is violating or has violated institutional regulations and placed in an archive accessible by an administrator.
- **Probation** - A written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to violate any institutional regulation(s) during the probationary period. The college may impose specific written conditions for the probation.
- **Discretionary Sanctions** - Work assignments, essays, community service to the college or other related discretionary assignments.
- **Referral** – use of special support services, including but not limited to services providing by the college, social service agencies or law enforcement agencies.
- **Loss of Privileges** - Denial of specified privileges for a designated period of time including limiting access to facilities, programs, services, activities or members of the College community.
- **Course Withdrawal** – immediate institutional withdrawal from one or more courses. Students are not entitled to refunds when institutionally withdrawn from a course.
- **Restitution** - Compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
- **Suspension** - Denial of the privilege of enrollment for a specified period of time after which the student is eligible to return. Conditions for re-enrollment may be specified. Notice of action may appear on the student's academic transcript.
- **Expulsion** - Permanent denial of the privilege of enrollment at the college. Notice of action may appear on the student's academic transcript.
- **Revocation of Admission and/or Degree** - Admission to or a degree awarded from the college may be revoked for fraud, misrepresentation or other violation of college standards in obtaining the degree, or for other serious violations committed by a student prior to graduation.
- **Withholding Degree** - The College may withhold awarding a degree otherwise earned until the completion of the process set forth in this Student Code of Conduct, including the completion of all sanctions imposed, if any.
- **Deactivation** – Loss of all college privileges for student groups or organizations, including college recognition and funding for a specified period of time.

Subpart D. Appeals:

A decision reached by the Student Conduct Board or a sanction imposed by the Administrator may be appealed by the respondent(s) or complainant(s) to the President, or other designated administrator, within five (5) class days of the notification of the decision. Such appeals shall be in writing and shall be delivered to the Administrator or his or her designee.

Except as required to explain the basis of new information, an appeal shall be limited to a review for one or more of the following purposes:

- To determine whether the informal or formal hearing was conducted fairly in light of the charges and information presented, and in conformity with prescribed procedures, giving the complaining party a reasonable opportunity to prepare and to present information that the Student Code of Conduct was violated, and giving the alleged student violator a reasonable opportunity to prepare and to present a response to those allegations. Deviations from designated procedures will not be a basis for sustaining an appeal unless significant prejudice results.
- To determine whether the decision reached regarding the alleged student violator was based on substantial information--that is, whether there were facts in the case that were sufficient to establish that a violation of the Code occurred.
- To determine whether the sanction(s) imposed were appropriate for the violation of the Code which the student was found to have committed.
- To consider new information, sufficient to alter a decision or other relevant facts not brought out in the original hearing, because such information and/or facts were not known to the person appealing at the time of the original informal or formal hearing.

If an appeal is not upheld, the President, or other designated administrator, may take any appropriate action. If an appeal is upheld, the matter shall be considered final and binding upon all involved, except in cases involving sanctions of suspension for ten (10) days or longer, in which case students shall be informed of their right to a contested case hearing under Minnesota Statutes, Chapter 14.

Subpart E. Summary Suspension:

In certain circumstances, the Administrator may impose a summary suspension prior to the informal or formal proceedings. A summary suspension may be imposed only when, in the judgment of the Administrator, the accused student's presence on the college campus would constitute a threat to the safety and well-being of members of the college community. To the greatest extent possible before

implementing the summary suspension, the accused student shall be given oral or written notice of the intention to impose the summary suspension and shall be given an opportunity to present oral or written arguments against the imposition of the suspension. Notice of the intention to impose the summary suspension shall be provided in writing to the student. After the student has been summarily suspended, the student shall be provided an opportunity for an informal or formal hearing within the shortest reasonable time period, not to exceed nine (9) school or business days. During the summary suspension, the student may not enter the campus without obtaining prior permission from the Administrator, regardless of the severity of the offense, and may need to be accompanied by a designated staff person.

Part 5. Forms:

If there are forms associated with the policy, this section should list the forms. If the forms are web-based, this section should link the form to the website.

Date of Last Review: 02/14/2024

List of related policies or procedures (if any):

- 2.0003 Student Safety & Health policy
- 3.0101 Student Rights & Responsibilities policy
- 3.0602 Academic Dishonesty policy
- 3.0801 Student Complaint / Grievance policy
- 3.0801.0001 Student Complaint / Grievance procedure
- 5.1801 Student Drug and Alcohol Use policy
- 5.2601 Data Governance policy
- 5.2601.0001 Data Governance procedure
- 1B.01 Education policy (System)
- 1B.02 Affirmative Action in Employment policy (System)
- 1B.03 Sexual Violence policy (System)
- 1B.03.01 Response to Sexual Violence procedure (System)
- 1B.04 Access and Accommodation for Individuals with Disabilities policy (System)
- 3.01 Student Rights & Responsibilities policy (System)
- 3.06 Student Conduct policy (System)
- 3.06.01 Student Conduct procedure (System)
- 3.08 Student Complaints and Grievances policy (System)
- 3.08.01 Student Complaints and Grievances procedure (System)
- 5.18 Alcoholic Beverages or Controlled Substances on Campus policy (System)
- 5.18.01 Alcoholic Beverages or Controlled Substances on Campus procedure (System)
- 5.21 Possession or Carry of Firearms policy (System)
- 5.22 Acceptable Use of Computers and Information Technology Resources policy (System)
- 5.22.01 Acceptable Use of Computers and Information Technology Resources procedure (System)

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Student Drug and Alcohol Use Policy #5.1801

Policy Statement

The College seeks to promote a healthy and responsible campus environment which is conducive to teaching and learning.

Purpose/Authority

South Central College recognizes that the misuse of alcohol and other drugs is a serious problem in our society and our community. Federal and state law prohibits the unlawful use, possession, or distribution of alcohol or illegal drugs on campus. Students who use, possess or distribute alcohol or illegal drugs on campus will be subject to disciplinary action as set forth in the College's code of conduct and civil and state laws. This prohibition extends to any student on College grounds, whether he or she is a member of the College community or not.

Major Sections

This document is in compliance with Federal Drug-Free Schools and Campus Regulations, Minnesota State policies, other state and local laws, South Central College has adopted the following policies regarding the use of alcohol and other drugs:

- No student shall use, possess, manufacture, sell, or otherwise distribute any alcoholic beverage, illegal drug or any controlled substance while on-campus or while off-campus and involved in a College-sponsored activity, service, project, program or work situation.
- No student shall report to campus while under the influence of alcohols or a controlled substance, which affects alertness, coordination, reaction, response, judgement, decision-making, or safety.
- Exceptions include medically authorized use of prescription drugs
- Although the Minnesota cannabis law allows Minnesotans to use, distribute and grow marijuana, the possession and use of marijuana remains illegal under federal law, including the Drug Free Schools and Communities Act, Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970, the Crime Awareness and Campus Security Act of 1989, and Board Policy 5.18. Therefore, the use, possession, production, manufacture, sell and/or distribution of marijuana continues to be prohibited within and outside South Central College buildings, including the College's owned or controlled property, or at any event authorized or controlled by the College or an entity doing business with the College.

Sanctions may include but are not limited to: Students found to have violated this policy will be subject to disciplinary action according to the Student Code of Conduct, including, but not limited to any one or all of the following:

- Confiscation of any alcohol, drugs, or paraphernalia
- Conduct warnings or probation
- Counseling or medical referral
- Suspension or expulsion from the college
- Referral to law enforcement agencies for prosecution of charges

List of Related Policies or Procedures (if any):

5.18 Alcoholic Beverages or Controlled Substances on Campus policy (System)

Date of Last Review: 11/30/2023

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Student Emergency #5.2404

Policy Statement

The College recognizes its responsibility in providing a healthful environment and the safest conditions for its students.

Part 2. Purpose/Authority

Effectiveness of the instructional programs is in large part determined by an environment free from disruptions to the learning process. A loss of educational production is the ultimate result of an employee or student accident or illness. Accidents resulting in personal injury and damage to property and equipment represent needless waste.

Major Sections

Effective supervision of students shall remain in force whenever students are under supervision of college personnel. Student safety shall be an integral part of the curriculum in all programs and in all subjects.

South Central College, in compliance with the Clery Act, has a policy on emergency response, notification, and evacuation procedures. This policy can be accessed online at: <https://southcentral.edu/Security/campus-security.html>

We recognize the Occupational Safety and Health Act of 1970 and associated state legislation to be appropriate to and consistent with the purposes of the college. The application of federal and state standards for working conditions, structural limits and acceptable work practices shall be continuous and integral.

Date of Last Review: 10/24/2023

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Student Rights & Responsibilities #3.0101

Purpose: To specifically identify the rights related to academic freedom and status of students.

Applicability:

Freedom to Learn

In addition to the basic constitutional rights enjoyed by all citizens, students in colleges and universities have specific rights related to academic freedom and their status as students. Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. Students are expected to exercise their freedom with responsibility.

Freedom of Expression

Individual students and student organizations shall be free to examine and to discuss all questions of interest to them and to express opinions publicly and privately. They shall be free to support causes by orderly means that do not disrupt the regular and essential operation of the institution.

In the classroom, students shall be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.

Freedom to Association

Students shall be free to organize and join organizations to promote their common and lawful interests, subject to institutional policies or regulations. Registration or recognition may be withheld or withdrawn from organizations that violate college regulations and policies.

Student-Sponsored Forums

Students shall have the right to assemble, to select speakers and to discuss issues of their choice. The college shall establish reasonable time, place and manner restrictions to assure that the assembly does not substantially disrupt the institution or does not interfere with the opportunity of other students to obtain an education or otherwise infringe upon the rights of others. Such regulations shall not be used as a means of censorship. The president or designee may prohibit any forum when holding the event, in their judgment, would result in physical harm or threat of physical harm to personnel or property. Prior to any such prohibition, the president shall make the best effort to consult with a designated member of the student association.

Student Publications

Student-funded publications shall be free of censorship and advance approval of copy, and their editors and managers shall be free to develop their own editorial and news coverage policies. Editors and managers of student publications shall be protected from arbitrary suspension and removal because of student, faculty, administrative or public disapproval of editorial policy or content. The student fee allocation process shall not be used as a means of editorial control of student-funded publications. All student publications shall explicitly state on the editorial page that the opinions there expressed are not necessarily those of the college, system or student body.

- **Catalog and Course Information.** To the extent possible, students will be provided relevant and accurate information regarding courses prior to enrollment. Catalog descriptions will be accurate and based on information existing at the time of publication. To the extent possible, class schedules will list the names of faculty teaching courses.
- **Academic Information.** Students shall have access to accurate information about general requirements for establishing and maintaining acceptable academic standing, information which will enable students to determine their individual academic standing, and information regarding graduation requirements.
- **Academic Evaluation.** Student academic performance shall be evaluated solely on the basis of academic standards, including any requirements that are noted in the catalog, course syllabus or student handbook. Students shall have protection against prejudiced or capricious evaluation and shall not be evaluated on the basis of opinions or conduct in matters unrelated to academic standards. Students shall have the right to review their corrected examinations or other required assignments used by the faculty in evaluating the student's academic performance.
- **Property Rights.** Term papers, essays, projects, works of art and similar property shall be returned to a student upon request, within a reasonable time frame, when no longer needed for evaluation purposes, unless the student grants written permission for them to be retained.

- **Off-Campus Conduct.** Students who violate a local ordinance or state law risk the legal penalties prescribed by civil authorities. The college need not concern itself with every violation. Nevertheless, the college may take disciplinary action against students for off-campus behavior, following the procedures of the code of student conduct.

Date & Subject of Last Revisions: April 20, 2018

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Student Safety & Health Policy #2.0003

Purpose: To ensure the safety of students on campus and/or under the supervision of school personnel.

Applicability:

The College recognizes the Occupational Safety and Health Act of 1970 and associated state legislation to be appropriate to and consistent with the purposes of the school.

The application of federal and state standards for working conditions, structural limits, and acceptable work practices shall be continuous and integral. It is College policy to take all practical steps to safeguard students from accidents and environmental conditions and to maintain at all times an effective safety organization.

Effective supervision of students shall remain in force whenever students are on campus or under supervision of school personnel. Student safety shall be an integral part of the curriculum in all programs and in all classes.

Date & Subject of Last Revisions: December 13, 2013

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Tobacco Use Policy #5.1805

Policy Statement

South Central College is committed to creating a clean, safe and healthy learning and working environment for all students and employees.

Purpose/Authority

As of July 1, 2010, smoking to include E-cigarettes, tobacco use, tobacco sales (including the use or sales of smokeless tobacco products) and cannabis are prohibited on college owned, operated, or leased property.

Scope/Applicability

The success of this policy will depend upon the cooperation of all faculty, staff, students to comply with this policy, and to encourage others to comply with the policy, in order to promote a clean, safe, and healthy environment in which to work, study, and live.

Definitions

Smoking: is defined as inhaling, exhaling, burning, or carrying any lighted or heated cigar, cigarette, pipe, cannabis, or any other lighted or heated tobacco or other product intended for inhalation, in any manner or in any form. Smoking also includes the use of an e-cigarette which creates a vapor, in any manner or any form, or the use of any oral device for the purpose of circumventing the prohibition of smoking in this Policy.

Smokeless Tobacco Products: Smokeless tobacco including, but not limited to: snuff, chewing tobacco, smokeless pouches, or other forms of loose leaf tobacco.

E-cigarette: means any electronic oral device, such as one composed of a heating element, battery, and/or electronic circuit, which provides a vapor of nicotine or any other substances for inhalation. The term shall include any such device, whether manufactured, distributed, marketed, or sold as an e-cigarette, e-cigar, e-pipe, or under any other product name or descriptor, but does not include any product specifically approved by the U.S. Food and Drug Administration for use in medical treatment, such as an asthma inhaler.

Cannabis: South Central College Employees are expected to adhere and comply with this policy, even though the Minnesota cannabis law allows Minnesotans to use, distribute and grow marijuana, the possession and use of marijuana remains illegal under federal law, including the Drug Free Schools and Communities Act, Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970, the Crime Awareness and Campus Security Act of 1989, and Board Policy 5.18. Therefore, the use, possession, production, manufacture, sell and/or distribution of marijuana continues to be prohibited within and outside South Central College buildings, including the College's owned or controlled property, or at any event authorized or controlled by the College or an entity doing business with the College.

Major Sections

Cessation Programs and Services

To support South Central College students and employees who wish to reduce and/or quit using tobacco products, a variety of tobacco cessation resources and services are available through the Human Resources Office.

Violations

Violations of this policy by employees will be handled through the progressive disciplinary process as outlined in the employee's bargaining unit contract. Violations of this policy by students will be handled through the Student Code of Conduct process as outlined in the Student Handbook.

Policy Exceptions

1. All research, educational, and/or artistic purposes that involve the use of tobacco on campus, must be approved by the President or his/her designee. Such use must be preceded by reasonable advance notice to the public.
2. This policy does not apply to specific activities when tobacco is used in connection with the practice of cultural activities including those of American Indians that are in accordance with the American Indian Religious Freedom Act, 42 U.S.C. sections 1996 and 1996a. All ceremonial use exceptions must be approved in advance by the President of the College or his/her designee.
3. Use under this policy inside private vehicles is permitted.

Date of Last Review: 11/30/2023

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Transfer Credit Policy #3.2101

Policy Statement

Provide clear and consistent practices for accepting transfer credit to SCC.

Purpose/Authority

South Central College will grant credit for undergraduate coursework from regionally credited colleges and universities and will consider for additional credit other collegiate and non-collegiate work in accordance with Minnesota State Board Policies.

Definitions

Collegiate transfer work: Completed courses from other higher education institutions

Non-collegiate transfer work: Other learning experiences such as credit for prior learning, industry credentials, military credit as outlined in SCC Credit for Prior Learning policy.

Major Sections

Transfer credits are evaluated after admission, and/or upon request, for all transcripts submitted by, or on behalf of, the student.

List of related policies or procedures (if any):

[3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum Policy \(System\)](#)

[3.35 Credit for Prior Learning Policy \(System\)](#)

[3.39 Transfer Rights and Responsibilities Policy \(System\)](#)

[3.21.1 Transfer of Undergraduate Courses, Credit, Associate Degrees and the Minnesota Transfer Curriculum Procedure \(System\)](#)

[3.3501 SCC Credit for Prior Learning Policy](#)

[3.3501.0001 SCC Credit for Prior Learning Procedure](#)

Date of Last Review: 04/23/2022

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Transfer Credit Procedure #3.2101.0001

Purpose Statement

Provide clear and consistent practices for accepting transfer credit to SCC.

Definitions

Collegiate transfer work: Completed courses from other higher education institutions

Non-collegiate transfer work: Other learning experiences such as credit for prior learning, industry credentials, military credit as outlined in SCC Credit for Prior Learning policy.

Procedures:

1. The student must be admitted to South Central College.
2. Students must submit official college transcripts from previously attended college or university for evaluation of transfer applicability.
3. The Registrar's office is responsible for evaluating transfer credits based on Minnesota State system policy.
4. The Registrar's office will consult with academic programs to complete a comparison of course outcomes and in accordance with Minnesota State system policy. Students can view transfer credit outcomes on their student degree audit.
5. The student is responsible for verifying that all transcripts have been received and should notify the college if they believe that additional coursework should be evaluated.
6. Additional supporting documentation may be required (e.g., course syllabus, course description, common course outline) to support a request for transfer credit.
7. Once determined, transfer credit decisions will apply to all future transfer evaluations and are not inherently retroactive.
8. Transfer credit decisions are subject to change and further review.

Transfer Appeal Process

Any appeals of the transfer evaluation must use this process:

1. Submit a written appeal (using the **Transfer Course Evaluation Appeal Form**) to the SCC Appeal Committee regarding the result of the transfer. The Committee (Associate Vice President of Student Affairs, Academic Dean, and Registrar) will examine what courses have been completed and make a final determination on the transfer evaluation.
2. An appeal at the Minnesota State Level is available if the college level appeal is not successful. Information can be found at Transfer of Undergraduate Courses, Credit, Associate Degrees and the Minnesota Transfer Curriculum <http://www.minnstate.edu/board/procedure/321p1.html>.

List of related policies or procedures (if any):

[3.21 Undergraduate Course and Credit Transfer and the Minnesota Transfer Curriculum Policy \(System\)](#)

[3.35 Credit for Prior Learning Policy \(System\)](#)

[3.39 Transfer Rights and Responsibilities Policy \(System\)](#)

[3.21.1 Transfer of Undergraduate Courses, Credit, Associate Degrees and the Minnesota Transfer Curriculum Procedure \(System\)](#)

[3.3501 SCC Credit for Prior Learning Policy](#)

[3.3501.0001 SCC Credit for Prior Learning Procedure](#)

Date of Last Review: 04/23/2022

Important Dates

Fall 2024

- April 1 – First day to enroll in Nelnet Automatic Payment Plan
- August 1– September 6 - Bookstore charging allowed for financial aid applicants/PSEO students
- August 25 – Last Day to enroll in Nelnet Automatic Payment Plan
- August 26 – Fall Semester 2024 begins
- August 26 – Minimum payment \$300 or 15% due for Fall Semester 2024 classes
- August 30 – Last day to opt-out of Inclusive Access in D2L
- August 30 – Last day to add or drop full-semester courses
- August 30 – Registration cancellation for non-payment
- September 6 – Last day to charge textbooks to your student account
- September 6 – Last day to return books with a receipt for a full refund for Fall Semester 2024 classes
- September 9 – Last day to withdraw all enrolled courses for a 75% refund
- September 13 – First financial aid disbursement for Fall. See [Financial Aid Dates](#) for additional dates and info.
- September 16 – Last day to withdraw all enrolled courses for a 50% refund
- September 23 – Last day to withdraw all enrolled courses for a 25% refund
- September 30 – Full payment due for Fall Semester 2024
- October 8 – Late fees assessed on outstanding accounts not paid by October 7
- November 25 - Last day to withdraw from full-semester courses
- December 18 – Fall Semester 2024 ends

Spring 2025

- September 16 – First day to enroll in Nelnet Automatic Payment Plan
- December 9 - January 24– Bookstore charging allowed for financial aid applicants/PSEO students
- January 9 – Last Day to enroll in Nelnet Automatic Payment Plan
- January 13 – Spring Semester 2025 begins
- January 17– Last day to opt-out of Inclusive Access in D2L
- January 17 – Last day to add or drop full-semester courses
- January 17 – Registration cancellation for non-payment
- January 24 – Last day to charge textbooks to your student account
- January 24 – Last day to return books with a receipt for a full refund for Spring Semester 2025 classes
- January 27 – Last day to withdraw all enrolled courses for a 75% refund
- January 31 – First financial aid disbursement for Spring. See [Financial Aid Dates](#) for additional dates and info.
- February 3 – Last day to withdraw all enrolled courses for a 50% refund
- February 10 – Last day to withdraw all enrolled courses for a 25% refund
- February 18 – Full payment due for Spring Semester 2025
- February 26 – Late fees assessed on outstanding accounts not paid by February 25
- April 3 – Deadline to order cap and gown ([see Graduation and Commencement page for more information](#))
- April 21 - Last day to withdraw from full-semester courses
- May 14 – Spring Semester 2025 ends
- May 15 – Commencement Ceremony ([see Graduation and Commencement page for more information](#))

Tuition and Fees

Summer 2024:

- May 28 - Entire bill is due if not enrolled in the NELNET Automatic Payment Plan or have not met other minimum payment requirements*. Finalized financial aid awards may be deducted from the balance due.
- Payment requirements must be met immediately for registrations after May 30.
- June 3 - Registration Cancellation for Non-payment will be processed at 3:00 p.m. and again at midnight. Student accounts that do not meet the payment requirements* will have all courses administratively dropped.
- July 11 - Late fees assessed on accounts not paid by 11:59 p.m. on July 10.

Fall 2024:

- August 26 - Entire bill is due if not enrolled in the NELNET Automatic Payment Plan or have not met other minimum payment requirements*. Finalized financial aid awards may be deducted from the balance due.
- Payment requirements must be met immediately for registrations after August 26.
- August 30 - Registration Cancellation for Non-payment will be processed at 3:00 and again at midnight. Student accounts that do not meet the payment requirements* will have all courses administratively dropped.
- October 8 - Late fees assessed on accounts not paid by 11:59 p.m. on October 7.

Spring 2025:

- January 13 - Entire bill is due if not enrolled in the NELNET/FACTS Automatic Payment Plan or have not met other minimum payment requirements*. Finalized financial aid awards may be deducted from the balance due.
- Payment requirements must be met immediately for registrations after January 13.
- January 17 - Registration Cancellation for Non-payment will be processed at 3:00 and again at midnight. Student accounts that do not meet the payment requirements* will have all courses administratively dropped.
- February 26 - Late fees assessed on accounts not paid by 11:59 p.m. on February 25.

Summer 2025:

- June 2 - Entire bill is due if not enrolled in the NELNET Automatic Payment Plan or have not met other minimum payment requirements*. Finalized financial aid awards may be deducted from the balance due.
- Payment requirements must be met immediately for registrations after June 2.
- June 9 - Registration Cancellation for Non-payment will be processed at 3:00 p.m. and again at midnight. Student accounts that do not meet the payment requirements* will have all courses administratively dropped.
- July 16 - Late fees assessed on accounts not paid by 11:59 p.m. on July 15.

Students enrolled in courses at South Central College must meet [minimum payment criteria](#) by the published due dates to avoid an administrative drop of all courses.

By completing course registration for any semester, you agree to the financial responsibility for all charges on your student account. You promise to pay South Central College the full amount of the obligation by the due date. Furthermore, you agree to pay any and all costs, including collection, attorney, and litigation costs incurred by SCC in efforts to collect, should you default on your account charges.

Tuition and fee statements are not mailed.

Questions

Have questions about tuition and fees?

Fall 2024 - Spring 2025 Semester Tuition and Fees - Cost Per Credit

- Tuition*: \$183.18
- Online Tuition: \$217.68
- Student Activity Fee: \$6.50
- MSCSA: \$0.61
- Technology Fee: \$10.00
- Parking Fee**: \$2.50
- Health Services Fee: \$2.50

Total: \$205.29

Total for Online Courses: \$237.29

* There are additional costs for personal property or services provided to students enrolled in certain courses. See a list of these courses in the table below.

Note: SCC's current non-resident tuition and fee rates are the same as those charged to Minnesota residents. This is subject to change pending Minnstate Board and/or Minnesota Office of Higher Education action.

Tuition and fees are subject to change.

**Parking Fee \$2.50 per credit, not to exceed \$75.00 per academic year (Summer, Fall, Spring).

Individual Course Tuition - Cost Per Credit

These courses are more expensive than the standard cost per credit listed above.

Course Name	2025 Academic Year
ACCT 2900 Accounting Review	\$187.98
BIOL 100 Intro to Biology	\$185.48
BIOL 101 Intro to Ecology	\$185.87
BIOL 115 General Biology 1	\$190.74
BIOL 116 General Biology 2	\$186.00
BIOL 211 Genetics	\$191.96
BIOL 220 Human Anatomy	\$194.93
BIOL 230 Human Physiology	\$192.64
BIOL 270 Microbiology	\$191.04
CAP 250 Associate of Arts Capstone	\$197.18
CARP 1225 Stairway Technology	\$208.18
CARP 2100 Foundations and Footings	\$199.84
CARP 2101 Commercial Construction Concepts	\$208.18
COMP 2452 Information Storage and Mgmt.	\$212.18
COMP 2453 Virtualization Technologies	\$212.18
COMP 2456 Cloud Tehnologies & Svcs	\$212.18
CULN 1103 Culinary Fundamentals 1	\$195.68
CULN 1104 Culinary Fundamentals 2	\$195.68
CULN 1105 Butchery	\$201.93
CULN 1106 World Cuisine and Culturers	\$195.68
CULN 1200 Garde Manager	\$199.84
CULN 1201 Garde Manager 2	\$199.84
CULN 1202 Ala Cart Cooking and Prod.	\$189.43
CULN 1203 Baking 1	\$193.18
CULN 1204 Garde Manager 2	\$199.84
CULN 1301 Advanced Culinary	\$195.68
DA 1814 Chairside DA1	\$185.93

Course Name	2025 Academic Year
DA 1828 Nitrous Oxide Sedation	\$193.18
GCC 1120 Graphic Software 1	\$191.93
GCC 1220 Graphic Software 2	\$191.93
GCC 1260 Printing Process	\$198.18
GCC 2210 Design & Illustration 2	\$191.93
GCC 2261 Production Work Flow 2	\$204.43
HCTC 1886 Nursing Assistant	\$185.62
HVAC 2340 - Sheet Metal Ductwork Fabrication	\$190.64
ICP 1000 Intro Paramedicine	\$229.84
ICP 2030 Critical Care 1	\$186.43
ICP 2050 Field Internship 1	\$199.84
ICP 2060 Field Internship II	\$199.84
MDLT 1810 Lab Techniques and Orientation	\$186.43
MDLT 1825 Urinalysis/Body Fluids	\$186.43
MKT 1940 Leadership Strategies	\$189.84
NURS 1150 Clinical Foundation	\$196.43
NURS 1175 Nursing Interventions	\$193.18
NURS 1275 Medication Administration	\$193.18
NURS 1350 Clinical Application	\$193.18
NURS 2230 Semester 1 Pharmacology	\$223.18
NURS 2240 Fundamental Concepts	\$223.18
NURS 2250 Semester 1 Clinical Practice	\$198.06
NURS 2275 Semester 1 Skills Lab	\$193.18
NURS 2320 Semester 2 Med Surg Basic	\$213.18
NURS 2350 Semester 2 Clinical Practice	\$193.18
NURS 2375 Semester 2 Skills Lab and Pharmacology	\$193.18
NURS 2450 Semester 3 Clinical Practice	\$193.18
NURS 2455 Semester 3 Clinical Practice Specialty	\$195.62
NURS 2550 Semester 4 Clinical Practice	\$193.18
SURG 1450 Surginal Clinical	\$185.68
SURG 1470 Surginal Internship	\$185.68
WELD 1045 Intro Gas Tung Arc Welding	\$221.53
WELD 1075 Advance Welding Lab	\$214.43

These below fees are additional special course fees (not per credit)

Course Id	Course Fee	Details
ABCT 1810	\$125.00	Fender Project
ABCT 1820	\$125.00	Prime surfacer and paint coating for fender project
ABCT 2804	\$15.00	ASE certification
ABCT 2805	\$45.00	EPA 609 course test out for ASE certification
ABCT 2900	\$15.00	ASE certification
ABCT 2910	\$15.00	ASE certification
ARCH 1401	\$100.00	Industry Seminar
CMAE 1514	\$64.56	Proctored industry exam
CMAE 1518	\$64.56	Proctored industry exam
CMAE 1522	\$64.56	Proctored industry exam
CMAE 1526	\$64.56	Proctored industry exam
CTLS 1820	\$285.00	Exam and book
DA 1814	\$5.00	Magnetic name tag
DA 1815	\$25.00	Study Models
DA 1825	\$50.00	Sealants that students do on each other, cost of materials and placement

Course Id	Course Fee	Details
DA 1860	\$50.00	Bleach Trays
DA 1860	\$110.00	Dental Kits
ECE 2510	\$44.00	Background study
GCC 2220	\$100.00	Portfolio printing, business cards post cards, screen print
HCTC 1886	\$44.00	Background Study
HEMS 1200	\$60.00	Platinum Education Exam
HEMS 1200	\$90.00	Practical Exam
HEMS 1220	\$35.00	NCCCR/EMT skills testing
HEMS 1300	\$115.00	Emergency Medical Responder textbook
HSER 2000	\$44.00	Background Check
HUCF 1201	\$150.00	NAHUC Certification Exam
HVAC 2100	\$35.00	EPA-608 Certification Exam
ICP 1010	\$44.00	Background Check
ICP 1050	\$400.00	Uniform required for Clinical Rotation
ICP 2080	\$19.00	ACLS & PALS Certification
MA 2020	\$100.00	TrueLearn-Certification exam preparation
MA 2020	\$44.00	Background Check
MA 2040	\$125.00	Certification Exam
MDLT 1815	\$44.00	Background Study
MDLT 2825	\$215.00	Certification exam
MTT 1110	\$62.50	Project materials
MTT 1120	\$62.50	Project materials
NURS 1110	\$775.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 1150	\$44.00	Background study
NURS 1310	\$775.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 2200	\$44.00	Background study
NURS 2200	\$250.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 2240	\$700.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 2250	\$44.00	Background study
NURS 2320	\$700.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 2420	\$700.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
NURS 2520	\$700.00	ATI Nursing Resources - textbooks, exams, virtual simulations, electronic health record, study aids
PHLE 1400	\$44.00	Background Study
SURG 1450	\$100.00	Trajecsyst Report System - Centralized Clinical Record Keeper
SURG 1450	\$44.00	Background study

Final Exam Schedule

Fall Semester 2024 / December 11 - 19, 2024

Wednesday, December 11, 2024 - All day classes that meet one time per week on Wednesdays: examination time is regularly scheduled class meeting time

Thursday, December 12, 2024 - All day and evening classes that meet one time per week on Thursdays: examination time is regularly scheduled class meeting time

Friday, December 13, 2024 - All day and evening classes that meet one time per week on Fridays: examination time is regularly scheduled class meeting time

Saturday, December 14, 2024 - All classes that meet one time per week on Saturdays: examination time is regularly scheduled class meeting time

Monday, December 16, 2024 - All day classes with initial weekly meeting of Monday at an even hour:

Class Period / Examination Time

- 8:00 – 8:50 a.m. / 8:00 – 9:50 a.m.
- 10:00 – 10:50 a.m. / 10:00 – 11:50 a.m.
- 12:00 – 12:50 p.m. / 12:00 – 1:50 p.m.
- 2:00 – 2:50 p.m. / 2:00 – 3:50 p.m.
- 4:00 – 4:50 p.m. / 4:00 – 5:50 p.m.
- All evening classes with weekly meeting on Mondays after 5:00 p.m.: examination time is regularly scheduled class meeting time

Tuesday, December 17, 2024 - All day classes with initial weekly meeting of Tuesday:

Class Period / Examination Time

- 8:00 a.m. / 8:00 – 9:50 a.m.
- 9:00 a.m. / 9:00 – 10:50 a.m.
- 10:00 a.m. / 10:00 – 11:50 a.m.
- 11:00 a.m. / 11:00 – 12:50 p.m.
- 12:00 p.m. / 12:00 – 1:50 p.m.
- 1:00 p.m. / 1:00 – 2:50 p.m.
- 2:00 p.m. / 2:00 – 3:50 p.m.
- 3:00 (or 3:30) p.m. / 3:00 – 4:50 p.m.
- 4:00 / 4:00 – 5:50 p.m.
- All evening classes with weekly meeting on Tuesdays after 5:00 p.m.: examination time is regularly scheduled class meeting time

Wednesday, December 18, 2024 - All day classes with initial weekly meeting of Monday at an odd hour:

Class Period / Examination Time

- 9:00 - 9:50 a.m. / 9:00 – 10:50 a.m.
- 11:00 - 11:50 a.m. / 11:00 – 12:50 p.m.
- 1:00 - 1:50 p.m. / 1:00 – 2:50 p.m.
- 3:00 - 3:50 p.m. / 3:00 – 4:50 p.m.
- All evening classes with weekly meeting on Wednesday after 5:00 p.m.: examination time is regularly scheduled class meeting time

Thursday, December 19, 2024 will be used for rescheduling examination days cancelled due to weather or other occurrences.

*This Final Exam Schedule is subject to change for alignment with the Course Scheduling Policy

Spring Semester 2025 / May 7 - 15, 2025

Wednesday, May 7, 2025 - All day classes that meet one time per week on Wednesdays: examination time is regularly scheduled class meeting time

Thursday, May 8, 2025 - All day and evening classes that meet one time per week on Thursdays: examination time is regularly scheduled class meeting time

Friday, May 9, 2025 - All day and evening classes that meet one time per week on Fridays: examination time is regularly scheduled class meeting time

Saturday, May 10, 2024 - All classes that meet one time per week on Saturdays: examination time is regularly scheduled class meeting time

Monday, May 12, 2025: All day classes with initial weekly meeting of Monday at an even hour:

Class Period / Examination Time

- 8:00 – 8:50 a.m. / 8:00 – 9:50 a.m.
- 10:00 – 10:50 a.m. / 10:00 – 11:50 a.m.
- 12:00 – 12:50 p.m. / 12:00 – 1:50 p.m.
- 2:00 – 2:50 p.m. / 2:00 – 3:50 p.m.
- 4:00 – 4:50 p.m. / 4:00 – 5:50 p.m.
- All evening classes with weekly meeting on Mondays after 5:00 p.m.: examination time is regularly scheduled class meeting time

Tuesday, May 13, 2025 - All day classes with initial weekly meeting of Tuesday:

Class Period / Examination Time

- 8:00 a.m. / 8:00 – 9:50 a.m.
- 9:00 a.m. / 9:00 – 10:50 a.m.
- 10:00 a.m. / 10:00 – 11:50 a.m.
- 11:00 a.m. / 11:00 – 12:50 p.m.
- 12:00 p.m. / 12:00 – 1:50 p.m.
- 1:00 p.m. / 1:00 – 2:50 p.m.
- 2:00 p.m. / 2:00 – 3:50 p.m.
- 3:00 (or 3:30) p.m. / 3:00 – 4:50 p.m.
- 4:00 / 4:00 – 5:50 p.m.
- All evening classes with weekly meeting on Tuesdays after 5:00 p.m.: examination time is regularly scheduled class meeting time

Wednesday, May 14, 2025 - All day classes with initial weekly meeting of Monday at an odd hour:

Class Period / Examination Time

- 9:00 - 9:50 a.m. / 9:00 – 10:50 a.m.
- 11:00 - 11:50 a.m. / 11:00 – 12:50 p.m.
- 1:00 - 1:50 p.m. / 1:00 – 2:50 p.m.
- 3:00 - 3:50 p.m. / 3:00 – 4:50 p.m.
- All evening classes with weekly meeting on Wednesday after 5:00 p.m.: examination time is regularly scheduled class meeting time

Thursday, May 15, 2025 will be used for rescheduling examination days cancelled due to weather or other occurrences.

*This Final Exam Schedule is subject to change for alignment with the Course Scheduling Policy