Minnesota West
COMMUNITY & TECHNICAL COLLEGE

Minnesota West CATALOG

2024 - 2025

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Disclaimer

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For student rights, conduct policies, and appeals see
the Current Student page on our web site.
Look under Student Information and Policies.

Minnesota West
COMMUNITY & TECHNICAL COLLEGE
Canby • Granite Falls
Jackson • Pipestone • Worthington

2024-2025 CATALOG

Web Site: www.mnwest.edu
Toll Free: 800-658-2330

Campus Addresses and Phone Numbers

Canby Campus
1011 First Street West
Canby, MN 56220
FAX 507-223-5291

Granite Falls Campus
1593 11th Avenue
Granite Falls, MN 56241
FAX 320-564-4582

Jackson Campus
P.O. Box 269
401 West Street
Jackson, MN 56143
FAX 507-847-5389

Luverne Educational Center for Health Careers
305 E. Luverne Street
Luverne, MN 56156
FAX 507-449-0254

Marshall Center
1001 West Erie Road
PO Box 359
Marshall, MN 56258
FAX 507-537-7081
www.mnwest.edu/training

Pipestone Campus
P.O. Box 250
1314 North Hiawatha Ave.
Pipestone, MN 56164
FAX 507-825-4656

Mayo Clinic
200 First Street SW
Rochester, MN 56164

Worthington Campus
1450 Collegeway
Worthington, MN 56187
FAX 507-372-5803

MINNESOTA STATE SYSTEM

Minnesota West Community & Technical College is a member institution of the Minnesota State colleges and universities. Minnesota State is the largest single provider of higher education in the state of Minnesota with 30 community and technical colleges and seven state universities located on 54 campuses.

"Minnesota West Community & Technical College is an open enrollment institution committed to equal opportunity. Students with limited English proficiency will have equal opportunity in the admissions process."

Minnesota State
Wells Fargo Place
30 7th St. E., Suite 350
St. Paul, MN 55101-7804
651-296-8012

History

Minnesota West Community & Technical College is a comprehensive community and technical college with five southwestern Minnesota campuses, located in Canby, Granite Falls, Jackson, Pipestone, and Worthington and two learning centers located in Marshall and Luverne. Minnesota West provides students with the opportunity to earn an Associate Degree, Diploma, or Certificate.

Minnesota West has a long-standing tradition of providing quality liberal arts/transfer and technical education. On January 1, 1997, Worthington Community College and Southwestern Technical College merged as Minnesota West Community & Technical College.

The four campuses that comprised Southwestern Technical College began as local area vocational schools. The individual campuses have a history dating back more than 50 years. The campuses were originally under the jurisdiction of the local high school board of education and offered programs that served the local and regional economy. On July 1, 1985, the four area technical institutes at Canby, Granite Falls, Jackson, and Pipestone were officially merged to form Southwestern Technical Institute. The Minnesota State Legislature renamed all technical institutes as technical colleges on July 1, 1989. Southwestern Technical College was a member institution of the former Minnesota Technical College System and on July 1, 1995, became a member institution of Minnesota State.

The former Worthington Community College was established in 1936 as an institution of higher education by and under the jurisdiction of the local school district to meet the post-secondary education needs of the community and surrounding area. The first campus was located in the Worthington High School, and in 1966 the College moved to its current 76 acre campus located to the north of Lake Okabena. In 1964 Worthington Junior College was transferred to the State Junior College Board and was named Worthington State Junior College. In 1973 the name was changed to Worthington Community College and the College was placed under the jurisdiction of the Minnesota Community College System. On July 1, 1995, Worthington Community College became a member institution of Minnesota State.

Two centers in Marshall and Luverne have been added to Minnesota West Community & Technical College to serve the students of those areas.

Mission Statement

Minnesota West Community & Technical College prepares learners for a lifetime of success.

Vision Statement

Minnesota West is the regional college of choice.

Values

- Community Engagement
- Courage
- Diversity & Inclusion
- Innovation
- Integrity
- Student Success

To view 2024-2029 Strategic Plan

General Information

Affirmative Action/Nondiscrimination

It is the policy of Minnesota West Community & Technical College to undertake and maintain a program of equal opportunity and of non-discrimination as determined by Minnesota State policy 1B.1 in educational opportunities and employment. 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, gender identity, gender expression or membership or activity in a local commission as defined by law. Contact Katie Meyer, Affirmative Action Officer; 1450 College Way Worthington, MN 56187. Phone 507-372-3408 or email katie.meyer@mnwest.edu.

Individuals with Disabilities

It is the policy of the College to provide access to and encourage participation in programs, services, and activities to qualified individuals with known disabilities as required by Federal and State statutes.

Students with certain types of disabilities should be aware that some programs and courses require specific physical abilities. Please consult with the instructor and/or advisor for possible accommodations prior to enrollment.

College ADA Coordinator for employees is
Katie Meyer who can be reached at:
katie.meyer@mnwest.edu

College ADA Coordinator for students is
Brian Reynolds who can be reached at:
brian.reynolds@mnwest.edu

Consumer Information/Student Right to Know

Minnesota West Community & Technical College, in compliance with the Title VI of the Educational Amendments of 1976 to the Higher Education Act and subsequent Federal Legislation, will provide and disseminate consumer information to all prospective and enrolled students. This information shall include, but not be limited to the following: admission requirements, financial aid programs, costs, job placement, probation policy, campus crime statistics, student retention, refund policy, and transfer. Students who do not have a high school diploma or GED can obtain one while attending Minnesota West. The College Deans, Registrar, or the Student Services staff on each campus are designated as the persons available to all enrolled students and prospective students regarding consumer information. This information is made available upon request through publications and mailings.

Data Privacy

All actions concerned with data collected and filed or stored at the College shall be administered in compliance with the provisions of Minnesota Statutes, Section 13.01 to 13.87. The President or designee shall be the responsible authority concerning Directory Information or Public Data, Private Data, and Confidential Data. Requests to obtain data should be made under the Minnesota Government Data Practices Act and the College may require a fee to retrieve Public Data.

Under Section 13.04 of the MGDPA, individuals who are the subjects of government data have the right to access private data about themselves or to release this information to other individuals. The subject must make a request in writing and sign the required Minnesota West form for release of this data. There is no fee charged to the individual for accessing or releasing this data.

Accreditation and Approvals

Minnesota West Community & Technical College is a member of Minnesota State, which consists of 37 public colleges and universities on 54 campuses.

The College is accredited by the Higher Learning Commission, a Commission of the North Central Association of Colleges and Secondary Schools (NCA). View the institutional Self Study and the Request for Institutional Change for the Higher Learning Commission on our website in the “About Us” section.

NCA may be contacted at the following address:

The Higher Learning Commission
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
800-621-7440

Additional Accrediting and Approval Organizations

Accreditation Commission for Education in Nursing (ACEN), Inc.
3390 Peachtree Road NE, # 1400
Atlanta, GA 30326
404-975-5000
https://www.acenursing.org/

Accreditation Council for Occupational Therapy Education (ACOTE)
6116 Executive Boulevard, Suite 200
North Bethesda, MD 20852-4929
www.acoteonline.org
The Minnesota West Community & Technical College Occupational Therapy Assistant Program was granted Candidacy Status by ACOTE in September 2022. During 2023-2024, the program must have a preaccreditation review, complete an on-site evaluation, and be granted Accreditation Status before its graduates will be eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT).

American Dental Association
Commission of Dental Accreditation
211 East Chicago Avenue
Chicago, Illinois 60601-2678
312-440-2500
https://www.ada.org/en/coda

Automotive Service Excellence Education Foundation
1503 Edwards Ferry Rd. NE
Suite 401
Leesburg, VA 20176
703-669-6650
https://www.aseeducationfoundation.org

Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33756
Phone: 727-210-2350
https://www.caahep.org
The Minnesota West Community & Technical College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
Phone: 727-210-2350
https://www.caahep.org
The Minnesota West Community & Technical College Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education (www.caahep.org) upon recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA)

Emergency Medical Services Regulatory Board
2829 University Ave SE, Suite 310
Minneapolis, MN 55414-3222
651-201-2800
www.emsrb.state.mn.us

Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 North Wacker Drive, Suite 2850
Chicago, IL 60606-3182
312-704-5300
https://www.jrcert.org/

Minnesota Board of Nursing
8229 University Ave SE, #500
Minneapolis, MN 55414-3253
612-317-3000

Minnesota Board of Peace Officer Standards and Training
1600 University Avenue, Suite 200
St. Paul, Minnesota 55104-3825
651-643-3060

Minnesota Department of Agriculture
90 West Plato Boulevard
Saint Paul, Minnesota 55107
651-297-2200

Minnesota Board of Barber and Cosmetologist Examiners
2829 University Ave SE, Suite 710
Minneapolis, MN 55414
651-201-2742
https://mn.gov/boards/cosmetology

Minnesota Department of Labor and Industry
Board of Electricity
443 Lafayette Road N
St Paul, MN 55155
651-284-5315

Minnesota Department of Rehabilitation Services
390 North Robert Street, 1st Floor
St. Paul, MN 55101
651-296-5616

Minnesota State Approving Agency for Veterans Education
MDVA-MN SAA
206 Veteran's Service Bldg

20 West 12th Street
St. Paul, MN 55155-2079
651-296-2562

National Accreditation Agency for Clinical Laboratory Sciences
5600 N. River Road, Suite 720
Rosemont, Illinois 60018-5119
773-714-8880
https://www.naacis.org/about.aspx

National Alliance of Concurrent Enrollment Partnership (NACEP)
PO Box 578
Chapel Hill, NC 27514
919-593-5205

Professional Certificate Approval Program (PCAP)
AHIMA
233 North Michigan Avenue, 21st Floor
Chicago, IL 60601-5809
https://ahima.org/pcap

United States Department of Education
400 Maryland Avenue, SW
Washington, DC 20202
800-872-5327

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Minnesota Transfer Curriculum and General Education

The Minnesota Transfer Curriculum (MnTC) is a collaborative effort among all two-year and four-year public colleges and universities in Minnesota to help students transfer their coursework in general education between institutions. Students who complete the Minnesota Transfer Curriculum (MnTC) and then transfer to any other Minnesota public baccalaureate degree-granting university will have fulfilled all lower division general education requirements.
There are ten goals within the 40 required credits. One course may fulfill a maximum of two goals; however, credits will only be counted once in the total. A cumulative grade point average of 2.00 is required to complete the entire Minnesota Transfer Curriculum. The MnTC grade point average will be calculated using grades of A-D (passing grades) earned in all MnTC courses, including both Minnesota West and transfer grades.
Minnesota West Community & Technical College adheres to the General Education definition embedded in the Minnesota Transfer Curriculum guide. Its mission and goals resonate to those ideals.

Area 1. Communication

Goal: To develop writers and speakers who use the English language effectively and who read, write, speak, and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing-intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking, and discussion.

Student Competencies: Students will be able to:
1. understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing, and presentation.
2. participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
3. locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.
4. select appropriate communication choices for specific audiences.
5. construct logical and coherent arguments.
6. use authority, point-of-view, and individual voice and style in their writing and speaking.
7. employ syntax and usage appropriate to academic disciplines and the professional world.

Student Requirements: Students will fulfill this area by completing:

1. ENGL 1101 Composition I (3)
   CMST 1130 Small Group Communication
2. One of the following: ENGL 1102 Composition II (3), or ENGL 2276 Composition: Technical Writing (3)
3. One of the following: CMST 1101 Public Speaking (3), CMST 1103 Interpersonal Communication (3), CMST 1130 Small Group Communication (3), CMST 1160 Basic Media Writing (3).

Area 2. Critical Thinking

Goal: To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Critical thinking skills will be taught and used throughout the general education curriculum in order to develop students' awareness of their own thinking and problem-solving procedures. To integrate new skills into their customary ways of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended problems.

Student Competencies: Students will be able to:
1. gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
2. imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternate meanings or solutions to given situations or problems.
3. analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
4. recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

Student Requirements: Students will fulfill this area by completing:

40 or more credits of general education. Most courses teach one or more of the critical thinking student competency areas.

Area 3. Natural Sciences

Goal: To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has

been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students should be encouraged to study both the biological and physical sciences.

Student Competencies: Students will be able to:
1. demonstrate understanding of scientific theories.
2. formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Student Requirements: Students will fulfill this area by completing a minimum of two science courses:
1. One course must be from Biology:
   BIOL 1100 Survey of Biological Science (3)
   BIOL 1110 Principles of Biology I (4)
   BIOL 1111 Principles of Biology II (4)
   BIOL 1115 Human Biology (3)
   BIOL 2100 Ecology (3)
   BIOL 2201 Human Anatomy (4)
   BIOL 2202 Human Physiology (4)
   BIOL 2230 Plant Biology (4)
   BIOL 2240 Genetics (3)
   BIOL 2245 Medical Terminology (2)
   BIOL 2270 Microbiology (4)

2. One course must be from Chemistry or Physics:
   CHEM 1100 Introduction to Chemistry (3)
   CHEM 1101 General Chemistry I (4)
   CHEM 1102 General Chemistry II (4)
   CHEM 1150 Survey of Chemistry (4)
   CHEM 2201 Organic Chemistry I (5)
   CHEM 2202 Organic Chemistry II (5)
   PHYS 1100 Survey of Physics (3)
   PHYS 1150 Survey of Astronomy (3)
   PHYS 1201 Fundamentals of Physics I (4)
   PHYS 1202 Fundamentals of Physics II (4)
   PHYS 2121 General Physics I (5)
   PHYS 2122 General Physics II (5)

Area 4. Mathematical/Logical Reasoning

Goal: To increase students' knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra. (Recommendation from the intersystem Mathematics Articulation Council. Adopted by all systems in February 1992.)
Student Competencies: Students will be able to:
1. illustrate historical and contemporary applications of mathematical/logical systems.
2. clearly express mathematical/logical ideas in writing.
3. explain what constitutes a valid mathematical/logical argument (proof).
4. apply higher-order problem-solving and/or modeling strategies.

Student Requirements: Students will fulfill this area by completing any one of the listed courses:
1. Any 3-5 credit Math course numbered MATH 1105 or higher:
   MATH 1105 Intro to Probability and Statistics (4)
   MATH 1107 Concepts in Math (3)
   MATH 1111 College Algebra (3)
   MATH 1113 Pre-Calculus (4)
   MATH 1118 Applied Calculus (4)
   MATH 1121 Calculus (4)
   MATH 1122 Calculus II (4)
   MATH 2201 Calculus III (4)
   MATH 2210 Linear Algebra (4)
2. PHIL 1200, Logic (3)

Area 5. History and the Social and Behavioral Sciences:

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Student Competencies: Students will be able to:
1. employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
2. examine social institutions and processes across a range of historical periods and cultures.
3. use and critique alternative explanatory systems or theories.

4. develop and communicate alternative explanations or solutions for contemporary social issues.

Student Requirements: Students will fulfill this area by completing a minimum of 9 credits from three of the following areas:

Criminal Justice
CJS 1101 Introduction to Criminal Justice (3)
Communication
CMST 1150 Exploring Mass Media (3)
Economics
ECON 1101 Introduction to Economics (3)
No credit if ECON 2201 or 2202 has been previously completed
ECON 2201 Principles of Macroeconomics (3)
ECON 2202 Principles of Microeconomics (3)
Education
EDUC 2900 Introduction to Special Education (3)
Geography
GEOG 1100 Introduction to Geography (3)
GEOG 2235 ST: Introduction to Human Geography (3)

History
HIST 1101 United State History to 1865 (4)
HIST 1102 United States History since 1865 (4)
HIST 1105 Minnesota History (3)
HIST 1121 Early World History (3)
HIST 1122 Modern World History (3)
HIST 2202 Modern American Wars (3)
Indigenous Studies
INDS 1101 Introduction to Indigenous Nations and Dakota Students (3)
Political Science
PSCI 1101 Introduction to Political Science (3)
PSCI 1201 American Government and Politics (3)
PSCI 2202 State and Local Government (3)
PSCI 2210 Environmental Politics (3)
Psychology
PSYC 1101 Introduction to Psychology (4)
PSYC 1111 Psychology of Self Adjustment (3)
PSYC 1150 Lifespan Developmental Psychology (3)
PSYC 2210 Basic Counseling Skills (3)
PSYC 2221 Psychology of Mental Illness (3)
PSYC 2225 Addictive Behavior (3)
PSYC 2230 Behavior Modification (3)
PSYC 2260 Social Psychology (3)
Sociology
SOC 1101 Introduction to Sociology (3)
SOC 1102 Social Problems (3)
SOC 2210 Marriage and the Family (3)
SOC 2224 Racial and Ethnic Minorities (3)
SOC 2225 Abuse in Society (3)
Social Work
SWRK 1101 Introduction to Human Services: Social Work (3)
SWRK 2250 Pre-Field Practicum: Social Work

Area 6. The Humanities and Fine Arts

Goal: To expand students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society.

Student Competencies: Students will be able to:
1. demonstrate awareness of the scope and variety of works in the arts and humanities.
2. understand those works as expressions of individual and human values within an historical and social context.
3. respond critically to works in the arts and humanities.
4. engage in the creative process or interpretive performance.
5. articulate an informed personal reaction to works in the arts and humanities.

Student Requirements: Students will fulfill this area by completing a minimum of 9 credits from three of the following departments (note: a minimum of two credits must be taken from each of the three countable areas):
Art
ART 1101 Beginning Drawing (3)
ART 1103 Display and Exhibition (1)
ART 1114 Foundations of Art 2D (3)
ART 1115 Beginning Painting (3)
ART 1118 Foundations of Art 3D (3)
ART 1120 Art Appreciation (3)
ART 1124 Introduction to Ceramics (3)
ART 1224 Investigations in Raku (3)
ART 2201 Intermediate Drawing (3)
ART 2215 Intermediate Painting (3)
ART 2230 Computer Graphics (3)
*ART 2235 Special Topics (1-3)
ART 2240 Art History I (3)
ART 2245 Art History II (3)
Communication
CMST 2210 Oral Interpretation (3)
CMST 2235 ST: Storytelling in Ireland (3)
English
ENGL 1102 Composition II (3)
ENGL 1105 Introduction to Literature (3)
ENGL 1120 Introduction to Women's Literature (3)
ENGL 1130 Introduction to Creative Writing (3)
ENGL 1141 Writing and Reading Poetry (2)
ENGL 2120 Children's Literature (3)
ENGL 2201 Early American Literature (3)
ENGL 2202 Modern American Literature (3)
ENGL 2203 Midwest Literature
ENGL 2221 Early British Literature (3)
ENGL 2222 Modern British Literature (3)

ENGL 2231 Classical Mythology (2)
History
HIST 1111 Early Western Civilization (3)
HIST 1112 Modern Western Civilization(3)
Humanities
HUM 2121 The Turbulent Sixties (4)
HUM 2201 The Many Faces of Mexico (2)
HUM 2230 World Religions (3)
Music
MUSC 1101 Fundamentals of Music (3)
MUSC 1102 Introduction to Music Technology (3)
MUSC 1103 Music in World Cultures (3)
MUSC 1104 American Popular Music (3
MUSC 1105 Music Appreciation (3)
MUSC 1110 Introduction to Rock Music (3)
MUSC 1111, 1112, 2111, 2112 Choir (1)
MUSC 1140, 1141, 2140, 2141 Piano Lessons (1)
MUSC 1145, 1146, 2145, 2146 Vocal Lessons (1)
Philosophy
PHIL 1101 Introduction to Philosophy (3)
PHIL 1102 Philosophy of Religion (2)
PHIL 2101 Ethics Theory & Practice (3),
PHIL 2201 Introduction to Ethical Theory (1)
One of the following three: PHIL 2202 General Applied Ethics (1) PHIL 2205 Business Ethics (2)
PHIL 2222 Medical Ethics (1)
Spanish
SPAN 1101 Spanish I (4)
SPAN 1102 Spanish II (4)
SPAN 2201 Spanish III (4)
SPAN 2202 Spanish IV (4)
Theater
THTR 1101 Introduction to Theater (3)
THTR 1102 Acting for Everyone (3)
THTR 1104 Survey of Musical Theater (3)
THTR 1105, 1106, 2105, 2106 Theater Production (1-3)
THTR 2122 Introduction to Film (3)
*THTR 2235 Special Topics (1-3)

* Special topics classes are presented to the Curriculum Committee prior to being taught. They are accepted as credits in a transfer curriculum area only if it is satisfactorily documented to the Curriculum Committee that more than 50 percent of the student competencies listed for that area are accomplished.

Area 7. Human Diversity

Goal: To increase students' understanding of individual and group differences (e.g., race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the United States' historical and contemporary responses to group differences.

Student Competencies: Students will be able to:

1. understand the development of and the changing meanings of group identities in the United States' history and culture.
2. demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
3. analyze their own attitudes, behaviors, concepts and beliefs regarding diversity, racism, and bigotry.
4. describe and discuss the experience and contributions (political, social, economic, etc.) of the many groups that shape American society and culture, in particular those groups that have suffered discrimination and exclusion.
5. demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

Student Requirements: Students will fulfill this area by completing any one of the listed courses (2 credit minimum):
CMST 1120 Intercultural Communication (3)
CMST 1140 Topics in Communication: Puerto Rican Cultures (3)
EDUC 2900 Introduction to Special Education (3)
ENGL 1105 Introduction to Literature (3)
ENGL 1120 Introduction to Women's Literature (3)
ENGL 2120 Children's Literature (3)
ENGL 2201 Early American Literature (3)
ENGL 2202 Modern American Literature (3)
ENGL 2221 Early British Literature (3)
ENGL 2222 Modern British Literature (3)
HIST 1101 United States History to 1865 (4)
HIST 1102 United States History since 1865 (4)
HIST 1105 Minnesota History (3)
HUM 2121 The Turbulent Sixties (4)
HUM 2201 The Many Faces of Mexico (2)
INDS 1101 Introduction to Indigenous Nations and Dakota Students (3)
PSYC 1101 Introduction to Psychology (4)
PSYC 1111 Psychology of Self Adjustment (3)
PSYC 1150 Lifespan Developmental Psychology (3)
PSYC 2221 Psychology of Mental Illness (3)
PSYC 2225 Addictive Behavior (3)
PSYC 2260 Social Psychology (3)
SOC 1102 Social Problems (3)
SOC 2100 Human Relations (3)
SOC 2210 Marriage and the Family (3)
SOC 2224 Racial & Ethnic Minorities (3)
SWRK 1101 Intro to Human Services: Social Work (3)

Area 8. Global Perspective

Goal: To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.

Student Competencies: Students will be able to:

1. describe and analyze political, economic, and cultural elements which influence relations of states

and societies in their historical and contemporary dimensions.
2. demonstrate knowledge of cultural, social, religious and linguistic differences.
3. analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.
4. understand the role of a world citizen and the responsibility world citizens share for their common global future.

Student Requirements: Students will fulfill this area by completing any one of the listed courses for a minimum of 2 credits:
ART 2240 Art History I (3)
ART 2245 Art History II (3)
CMST 1120 Intercultural Communication (3)
CMST 1140 Topics in Communication: Puerto Rican Culture (3)
GEOG 1100 Introduction to Geography (3)
GEOG 2235 ST: Introduction to Human Geography (3)
HIST 1111 Early Western Civilization (3)
HIST 1112 Modern Western Civilization (3)
HIST 1121 Early World History (3)
HIST 1122 Modern World History (3)
HUM 2230 World Religions (3)
MUSC 1102 Introduction to Music Technology (3)
MUSC 1103 Music in World Cultures (3)
NSCI 1100 Issues in the Environment (3)
PSCI 1101 Introduction to Political Science (3)
SOC 2100 Human Relations (3)
SOC 2224 Racial and Ethnic Minorities (3)
SPAN 1101 Spanish I (4)
SPAN 1102 Spanish II (4)
SPAN 2201 Spanish III (4)
SPAN 2202 Spanish IV (4)

Area 9. Ethical and Civic Responsibility

Goal: To develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and others' positions, be part of the free exchange of ideas, and function as public-minded citizens.
Student Competencies: Students will be able to:
1. examine, articulate, and apply their own ethical views.
2. understand and apply core concepts (e.g., politics, rights and obligations, justice, liberty) to specific issues.
3. analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
4. recognize the diversity of political motivations and interests of others.
5. identify ways to exercise the rights and responsibilities of citizenship.

Student Requirements: Students will fulfill this area by completing any one of the listed courses for a minimum of 2 credits:
CMST 1150 Exploring Mass Media (3)
CMST 1160 Basic Media Writing (3)
CMST 1170 Public Relations (3)
HIST 2202 Modern American Wars (3),
PHIL 1120 Environmental Ethics (3)
PHIL 2101 Ethics Theory and Practice (3),
PHIL 2201 Introduction to Ethical Theory (1)
One of the following three: PHIL 2202 General Applied Ethics (1), PHIL 2205 Business Ethics (2), PHIL 2222 Medical Ethics (1),
PSCI 1201 American Government and Politics (3)
PSCI 2202 State and Local Government (3)
SOC 2215 Drugs in Society (3)
SOC 2225 Abuse in Society (3)

Area 10. People and the Environment

Goal: To improve students' understanding of today's complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both biophysical principles and sociocultural systems is the foundation for integrative and critical thinking about environmental issues.

Student Competencies: Students will be able to:
1. explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
2. discern patterns and interrelationships of biophysical and sociocultural systems.
3. describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
4. evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
5. propose and assess alternative solutions to environmental problems.
6. articulate and defend the actions they would take on various environmental issues.

Student Requirements: Students will fulfill the area by completing any one of the listed courses (2 credit minimum):
GEOG 1101 Introduction to Physical Geography (3)
GEOG 2140 Natural Disaster and Meteorology (3)
NSCI 1100 Issues in the Environment (3)
PHIL 1120 Environmental Ethics (3)
PSCI 2210 Environmental Politics (3)

Transfer Information

Preparing for Transfer

Students currently enrolled at Minnesota West Community & Technical College:

1. Discuss plans with the campus Student Services Advisor.
2. Review the information on the Minnesota Transfer Web site.
3. Call or visit intended transfer college.
4. Obtain the following materials and information: college catalog, transfer brochure, course syllabi, information on admissions criteria and on materials required for admission (e.g., portfolio, transcripts, test scores).
5. Review these materials and make an appointment to talk with an advisor. Bring a current college transcript for the Student Services Advisor, transfer specialist and department/faculty advisor to review. Transcripts from any college that is part of the Minnesota State system are available electronically for the advisors to view.

Understanding How Transfer Works

1. The receiving college or university decides which credits transfer and whether those credits meet its degree requirements. The accreditation of both the sending and the receiving institution can affect the transfer of the credits earned.
2. Institutions accept credits from courses and programs like those they offer. They look for similarity in course goals, content, and level. “Like” transfers to “like.”
3. Not everything that transfers counts toward graduation. Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives.
4. If there are changes in career goals or major, student may be able to complete all degree requirements within the usual number of graduation credits.
5. Apply for transfer admission as early as possible and prior to the deadline. Be sure to enclose all required documents.
6. If student has not heard from the intended college of transfer after one month, they should call or check on the application’s status.
7. The transfer college will send a written evaluation of which courses transfer and which do not. How courses specifically meet degree requirements may not be decided until orientation or a major is chosen.
8. For questions about evaluation, call the college and speak with the transfer specialist. If not satisfied, student may appeal.

Your Rights as a Transfer Student

1. A clear, understandable statement of an institution’s transfer policy.
2. A fair credit review and an explanation of why credits were or were not accepted.
3. A copy of the formal appeals process.
4. A review, on request, of student eligibility for financial aid or scholarships.

Transferology

Transferology is a free web-based transfer information system that can be accessed by any Internet user.

Users have direct access to information on courses, course equivalencies, and program requirements among participating institutions across Minnesota and the United States. Transferology enables students to immediately see how courses will transfer and apply towards a degree at a Transferology institution.

Using Transferology, students can

- **view course equivalency guides** to see how courses transfer from one institution to another.
- **view degree program requirements** to see what is expected to complete a particular degree program.
- **maintain a list of courses** and grades for use in running a planning guide.
- **run an unofficial planning guide** (degree audit) to see how courses may transfer and apply to a degree program.
- **view course descriptions** directly from Transferology or from a Transferology institution's Web site.

Note:
Information obtained through Transferology should be considered unofficial and must be verified through the Records Department of the degree granting school.

Degree & Award Requirements

Degrees & Awards

The following degrees and awards are available through Minnesota West:
Associate of Arts (A.A.)
Associate of Science (A.S.)
Associate of Applied Science (A.A.S.)
Diploma
Certificate

Minnesota State Transfer Pathway Degrees

Through Transfer Pathways, students enrolled at Minnesota State's two-year colleges can select a course of study that will prepare them to complete related bachelor's degrees at any Minnesota State universities that offers a degree in that field. Students who complete the transfer degree will be guaranteed junior status upon admission to the university. The student will still need to meet any special admission requirement for the major. The bachelor's degree can be completed in 60 additional credits.
Transfer Pathway degrees are listed on the college web site under Programs and Courses.

Associate of Arts (A.A.) Degree Requirements

Minnesota West offers the first two years of course work that is designed to transfer to a baccalaureate degree at four year colleges and universities.

The Associate of Arts Degree can be used to fulfill the freshman-sophomore general education requirements at all state universities in Minnesota, at all colleges within the University of Minnesota and at most other four-year colleges and universities. The degree is the basic graduation award toward which most students will work if they intend to transfer. It emphasizes a broad general education.

To earn an A.A. degree, students must complete the following requirements:

1. A minimum of 60 credits, 15 of which must be earned at Minnesota West Community & Technical College.
2. A grade point average of 2.00 ("C") or better.
3. A minimum of 40 credits of general education that fulfils the Minnesota Transfer Curriculum. Students must meet credit requirements in each of the ten listed areas of emphasis. Courses may count in no more than two of the areas of emphasis, but no individual course can count more than once in Areas 1-6. One-credit courses will apply to the MTC only if two or more one-credit courses are completed in the same discipline (i.e. two semesters of Chorale or two semesters of Theater Production).
4. STSK 1110 Freshman Seminar (1) Credit.
5. A minimum of four credits from two of the following areas, HLTH 1101, CSCI 1102, or any Physical Education course.
6. Electives sufficient to total 60 credits.

Associate of Science (A.S.) Degree Requirements

Minnesota West Community & Technical College offers the first two years of various majors leading to the baccalaureate or professional degree in several technical areas. This list is not all-inclusive. Students may work toward the Associate of Science (A.S.) degree with one or more of the following as their major field:

Agriculture
Agri. Business
Ag Production Management
Business Management
Chemistry
Child Development
Communication Studies
Computer Applied Technology
Computer Science
Computer Science 2+2 with SMSU
Elementary Education
Individualized Studies
Law Enforcement
Network Specialist
Nursing
Office Management
Pre-Chiropractic
Pre-Engineering
Pre-Food Science
Pre-Forestry/Natural Resources
Pre-Human Services
Pre-Medicine
Plant Science
Web Development
Management and Supervision in Healthcare

Students planning to continue their education in engineering, medicine, medical technology, pharmacy, veterinary medicine and other such fields are advised to carefully plan their programs with an advisor. In such cases, students are encouraged to follow the requirements of the institution to which they will be transferring.

To earn an A.S. degree, students must complete the following requirements:

1. 60 semester credits of which at least 15 must be earned at Minnesota West Community & Technical College.
2. A grade point average of 2.0 ("C") or better.
3. A minimum of 30 credits selected from at least 6 of the 10 goal areas in the Minnesota Transfer Curriculum.

4. Fulfill at least a 30 credit core of technical courses unique to the program being completed.

Associate of Applied Science (A.A.S.) Degree Requirements

The Associate of Applied Science Degree is granted for successful completion of occupational programs. The A.A.S. career programs are designed to prepare students for entry into chosen occupations. An A.A.S. degree may be designed to transfer to a related baccalaureate major. Students planning to continue for a four-year degree should be aware that acceptance of degree/technical credits at the four-year institution is dependent upon the policies of the institution.

To earn an A.A.S. degree, students must complete the following requirements:

1. 60-72 semester credits, 15 of which must be earned at Minnesota West Community & Technical College.
2. A grade point average of 2.0 (“C”) or better.
3. 30 semester credits shall be program related, occupational or technical credits.
4. Degrees and Awards must include a minimum of 15 credits in general education, selected from three of the ten goal areas of the Minnesota Transfer Curriculum.

Diploma Requirements

A diploma may be awarded for successful completion of a program intended to provide students with employment skills. The diploma programs are identified in the Programs of Study section of the catalog and require:

1. Between 30-72 semester credits.
2. If diplomas are awarded for under 45 credits, general education courses may be required as part of the program and are established through consultation with the program advisory committee.
3. If diplomas are awarded for 45 credits or more, 15% of the credits must be in general education or seek advisory committee approval requesting a waiver to require a minimum of 6 general education credits.
4. At least 1/3 (33%) of the credits must be completed at Minnesota West.
5. A grade point average of 2.0 ("C") or better is required.

Certificate Requirements

1. 9 - 30 semester credits.
2. 0 general education courses required
3. 100% of credits shall be completed at Minnesota West for certificates 9-15 credits in length and at least 12 credits for certificates 16-30 credits in length.
4. A grade point average of 2.0 ("C") or better is required.

Honorary Degree

Honorary degrees may be awarded by Minnesota West Community & Technical College. The College may award an honorary degree based upon the intended recipient’s field(s) of contributions, achievement, service, and distinction.

Programs of Study

Accountant, A.A.S.

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington and Online

Accountants examine, analyze and interpret accounting data for the purpose of giving advice and preparing financial statements. Accountants also post details of business transactions, such as receipts, disbursements and payroll.

General Education Requirements			
ENGL	1101	Composition I	3
ECON		Any ECON Course	3
NSCI	1101	Issues in the Environment	3
		or	
		Goal Area 3 (Science or Math)	3
		Goal Area 6 (Humanities & Fine Arts)	3
		General Education Electives	3
		Total General Education	**15**
ACCT	1110	Payroll Accounting	3
ACCT	1112	Accounting Information Systems	1
ACCT	1115	Computerized Acct Applications I	2
ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ACCT	2100	Intermediate Accounting I	4
ACCT	2101	Intermediate Accounting II	2
ACCT	2110	Income Tax I	4
ACCT	2115	Cost Accounting I	4
ACCT	2120	Fund/Nonprofit Accounting	3
ACCT	2125	Computerized Acct Applications II	2
ACCT	2130	Intermediate Accounting III	2
		or	
ACCT	2135	Internship	2
BUS	1104	Business Mathematics	3
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
BUS	2241	Business Law	3
		Total Credits	**60**

Accountant, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington and Online

Accountants examine, analyze and interpret accounting data for the purpose of giving advice and preparing financial statements. Accountants also post details of business transactions, such as receipts, disbursements and payroll.

ACCT	1110	Payroll Accounting	3
ACCT	1112	Accounting Information Systems	1
ACCT	1115	Computerized Acct Applications I	2
ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ACCT	2100	Intermediate Accounting I	4
ACCT	2101	Intermediate Accounting II	2
ACCT	2110	Income Tax I	4
ACCT	2115	Cost Accounting I	4
ACCT	2120	Fund/Nonprofit Accounting	3
ACCT	2125	Computerized Accounting Applications II	2
ACCT	2130	Intermediate Accounting III	2
		or	
ACCT	2135	Internship	2
BUS	1104	Business Mathematics	3
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
BUS	2241	Business Law	3
General Education or Related Electives – 6 credits:			
ENGL	1101	Composition I	3
Choose from:			
ECON	1101	Introduction to Economics	3
ECON	2201	Principles of Macroeconomics	3
ECON	2202	Principles of Microeconomics	3
		Total Credits	**51**

Accounting Clerk, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington and Online

An accounting clerk performs any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. They also post details of business transactions, such as receipts, disbursements and payroll, reconcile bank statements, and type vouchers, invoices, and other records.

ACCT	1110	Payroll Accounting	3
ACCT	1112	Accounting Information Systems	1
ACCT	1115	Computerized Acct. Applications I	2
ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ADSA	1122	Word Processing I	2
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
BUS	2241	Business Law	3
BUS	1104	Business Mathematics	3
CSCI	1102	Computer Applications I	3
		Electives	1
		Total Credits	**30**

Accounting, Certificate

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

Students in the program will receive basic accounting knowledge which can be used immediately in the workplace or as part of a two year Accounting or Business degree. Students will focus on fundamental accounting principles and practices.

BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
ACCT	1120	Spreadsheet Concepts and Applications	2
		Two Business or Accounting Courses	6
		Total Credits	**16**

Administrative Assistant, A.A.S.

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Administrative Assistant, AAS program prepares students for a career as an administrative support professional. Administrative assistants are multi-taskers, planners, and team players who are skilled in performing a variety of office procedures to assist the organization. Administrative assistants use an array of technology and

computer software applications, prepare and edit business communications, provide customer service, coordinate and schedule meetings and events, organize and maintain records management systems, problem-solve, and perform basic office accounting procedures. The AAS degree option provides the opportunity to learn additional technical skills and incorporates general education coursework. The credits in this program can be applied toward the Office Management, AAS Degree

ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ADSA	1100	College Keyboarding I	3
ADSA	1105	College Keyboarding II	3
ADSA	1111	Office Management	3
ADSA	1122	Word Processing I	2
ADSA	1123	Word Processing II	2
ADSA	1126	Advanced Office Applications	2
ADSA	1130	Office Accounting Concepts	3
ADSA	1131	Office Accounting Concepts II	2
ADSA	1136	Desktop Publishing	2
ADSA	1141	Customer Service for Office Professionals	2
ADSA	1145	Supervisory Management	3
		or	
BUS	2221	Principles of Management	3
ADSA	1190	Presentation Graphics	2
BUS	1104	Business Mathematics	3
BUS	2242	Business Communications	3
CMST	1101	Public Speaking	3
CSCI	1102	Computer Applications I	3
CST	2326	Web Page Concepts	2
GSCL	1105	Job Seeking Skills	1
ENGL	1101	Composition I	3
NSCI	1101	Issues in the Environment	3
		or	
		Area 3 or 4 (Science or Math)	3
		Area 5 History and Social Science	3
		Humanities Electives	3
		Total Credits	**60**

Administrative Assistant, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Administrative Assistant, Diploma program prepares students for a career as an administrative support professional. Administrative assistants are multi-taskers, planners, and team players who are skilled in performing a variety of office procedures to assist the organization. Administrative assistants use an array of technology and computer software applications, prepare and edit business communications, provide customer service, coordinate and schedule meetings and events, organize and maintain records management systems, problem-solve, and perform basic office accounting procedures. The credits in this program can be applied toward the Administrative Assistant, AAS Degree and the Office Management, AAS Degree.

ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ADSA	1100	College Keyboarding I	3
ADSA	1105	College Keyboarding II	3
ADSA	1111	Office Management	3
ADSA	1122	Word Processing I	2
ADSA	1123	Word Processing II	2
ADSA	1126	Advanced Office Applications	2
ADSA	1130	Office Accounting Concepts	3
ADSA	1141	Customer Service for Office Professionals	2
ADSA	1190	Presentation Graphics	2
BUS	2242	Business Communications	3
CSCI	1102	Computer Applications I	3
GSCL	1105	Job Seeking Skills	1
		Electives	2
		Total Credits	**35**

Receptionist, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Receptionist, Certificate prepares students for an entry-level administrative support position. A receptionist is the first individual customers and visitors encounter in the organization. The receptionist's role focuses on providing customer service while performing a variety of office tasks including answering phones, greeting and directing customers and visitors, responding to e-mails, and scheduling appointments. The receptionist may also assist with preparing business documents, filing, copying, and processing incoming and outgoing mail. The credits in this program can be applied toward the Administrative Assistant, Diploma; Administrative Assistant, AAS Degree; and Office Management, AAS Degree.

ACCT	1120	Spreadsheet Concepts	2
ADSA	1100	College Keyboarding I	3
ADSA	1111	Office Management	3
ADSA	1122	Word Processing I	2
ADSA	1141	Customer Service for Office Professionals	2
BUS	2242	Business Communications	3
Choose one of the following electives:			
ADSA	1190	Presentation Graphics	2
ADSA	1136	Desktop Publishing	2
ACCT	1122	Database Concepts and Applications	2
		Total Credits	**17**

Agriculture, A.S.

Location: Worthington

Students selecting this option can transfer to upper division institutions with majors in several broad agriculture areas. Students are encouraged to review the requirements of the College to which they intend to transfer and discuss their plans with an advisor or the instructors in that area. The following specific requirements are designed to help students attain the basic transfer requirements for most four-year institutions offering agriculture.

Agriculture Business, A.S.

Location: Worthington

This two-year program is designed to prepare students for employment in agri-business or for continuing their education at a four-year institution. Graduates of this program may find job opportunities in sales, services, and management positions in agriculture related firms and industries. Students who plan to transfer are encouraged to review the requirements of the transfer institutions and plan their programs accordingly. Students in this program will receive the A.S. degree upon successful completion of the following requirements and suggested courses:

Business Courses - a minimum of 12 credits including:

BUS	1101	Introduction to Business	4
BUS	2201	Principles of Accounting I	4
AGRI	2251	Principles of Farm & Ranch Mgmt	4

Agriculture Courses - a minimum of 18 credits including an Agri-business internship of at least 2 credits.
Agriculture credits may be chosen from the following:

AGRI	1101	Introduction to Animal Science	3
AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1110	Introduction to Horticulture	3
AGRI	1125	Custom Application	2
AGRI	1151	Farm Records & Business Analysis	4
AGRI	1152	Agricultural Marketing & Pricing	3
AGRI	2201	Principles of Animal Nutrition	3
AGRI	2202	Weed Science	3
AGRI	2203	Soil Fertility and Fertilizers	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2205	Introduction to Precision Management Software	3
AGRI	2212	Corn and Soybean Production	3
AGRI	2214	Machinery Principles and Management	3
AGRI	2216	Introduction to Meat Science	3
AGRI	2251	Principles of Farm & Ranch Management	4
AGRI	2252	Economic Principles of Agricultural Marketing	2
AGRI	2299	Agri-Business Internship	2-8

Agriculture Business Management and Marketing, A.A.S.

Location: Worthington

This program prepares students for employment in agri-business. Graduates may find employment opportunities in sales, services, marketing or management positions in the agriculture business sector.

Required General Education from the following (15 credits required):

CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ECON	2201	Principles of Macroeconomics	3
ECON	2202	Principles of Microeconomics	3
NSCI	1100	Issues in the Environment	3
PSCI	2202	State and Local Government	3
		Math Elective (Math 1105 or higher)	3
		Humanities Elective	3

Ag Business Management Core Requirements (25 credits required):

BUS	1101	Introduction to Business	4
BUS	2201	Principles of Accounting I	4
BUS	2221	Principles of Management	3
BUS	2230	Principles of Marketing	3
AGRI	1151	Farm Records & Business Management	3
AGRI	1152	Agricultural Marketing and Pricing	3
AGRI	2251	Principles of Farm and Ranch Management	3
AGRI	2252	Economic Principles of Agricultural Marketing	2

Ag Business Management Agriculture Requirements (32 credits required):

AGRI	1101	Introduction to Animal Science	3
AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1110	Introduction to Horticulture	3
AGRI	1125	Custom Application	2
AGRI	2201	Principles of Animal Nutrition	3
AGRI	2202	Weed Science	3
AGRI	2203	Soil Fertility and Fertilizers	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2205	Introduction to Precision Mgt. Software	3
AGRI	2212	Corn and Soybean Production	3
AGRI	2214	Machinery Principles and Management	3
AGRI	2216	Introduction to Meat Science	3
AGRI	2299	Agri-Business Internship	2-11
		Total Credits	**72**

Agriculture - Plant Science/Precision Agriculture, A.S.

Location: Worthington

The Plant Science/Precision Agriculture Associate of Science degree is designed to provide students with several options. One option is a career in the emerging field of Precision Agriculture. Examples of employment would include soil gridding, nutrient management planning and variable rate application. The second option allows the student to continue on to a Bachelor's degree in this field with an emphasis in Agronomy.

AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	2202	Weed Science	3
AGRI	2203	Soil Fertility and Fertilizers	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2205	Introduction to Precision Management Software	3
AGRI	2212	Corn and Soybean Production	3
BIOL	1110	Principles of Biology I	4
BIOL	2230	Plant Biology	4
ENGL	1101	Composition I	3
CHEM	1101	General Chemistry I	5
CMST	1101	Public Speaking	3
ECON	2201	Principles of Macroeconomics	3
GEOG	1100	Introduction to Geography	3
MATH	1111	College Algebra	3
PHIL	1101	Introduction to Philosophy	3
PHIL	2201	Introduction to Ethical Theory	1
PHIL	2202	General Applied Ethics	1
PHIL	2205	Business Ethics	2
		Electives	4
		Total Credits	**60**

Agriculture - Precision Agriculture Application Technician, Certificate

Location: Worthington

AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1125	Custom Application	2
AGRI	2202	Weed Science	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2212	Corn and Soybean Production	3
AGRI	2297	Ag Production Management Intern	4
AUTO	1195	Commercial Driver's License.	2
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
		Electives	2
		Total Credits	**26**

Agriculture - Production Agriculture, Diploma

Location: Worthington

This diploma allows the student to immediately enter the field of Production Agriculture. The students' primary focus with this diploma is two-fold. The learner will either enter the workforce in direct support of production agriculture such as seeking employment at an elevator or working as an employee or entrepreneur in livestock and/or crop production.

AGRI	1101	Introduction to Animal Science	3
AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1151	Farm Records & Business Analysis	4
AGRI	1152	Agricultural Marketing and Pricing	3
AGRI	2201	Principles of Animal Nutrition	3
AGRI	2203	Soil Fertility and Fertilizers	3
AGRI	2205	Introduction to Precision Management Software	3
AGRI	2214	Machinery Principles and Management	3
AGRI	2251	Principles of Farm and Ranch Management	4
AGRI	2252	Economic Principles of Agricultural Marketing	2
AGRI	2297	Ag Production Mgt. Intern	2-8
		General Education	**10**

Agricultural Electives, choose from the following to equal or exceed 64 credits required:

AUTO	1194	Commercial Driver's License Learners Permit Preparation	1
AUTO	1195	Commercial Driver's License	2
AGRI	1110	Introduction to Horticulture	3
AGRI	1125	Custom Application	2
AGRI	2202	Weed Science	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2212	Corn and Soybean Production	3
AGRI	2216	Introduction to Meat Science	3
FBMA	2120	Fundamentals of Financial Mgt/ Business Plan	3
FBMA	2134	Directed Study-Personnel Mgt.	3
		Total Credits	**64**

Agriculture Production, A.A.S.

Location: Worthington

This A.A.S. degree in Agriculture Production is designed for the student whose career is in production Agriculture. This degree has two options, one is an Agronomy emphasis and the other option is an emphasis in Animal Science. The student will focus on course and lab work closely aligned to prepare the student to enter this field. This program is composed of many courses in Agriculture leading to a graduate with extensive preparation in Production Agriculture.

General Education Requirements 15 credits from the following:

BIOL	1100	Survey of Biological Science	3
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ECON	2202	Principles of Microeconomics	3
GEOG	1101	Introduction to Physical Geography	3
NSCI	1100	Issues in the Environment	3
MATH	1107	Concepts in Math	3
PSCI	2202	State and Local Government	3
		Humanities Electives	3

Ag production core requirements 57 credits from the following:

AGRI	1101	Introduction to Animal Science	3
AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1110	Introduction to Horticulture	3
AGRI	1125	Custom Application	2
AGRI	1151	Farm Records & Business Analysis	4
AGRI	1152	Agricultural Marketing and Pricing	3
AGRI	2201	Principles of Animal Nutrition	3
AGRI	2202	Weed Science	3
AGRI	2203	Soil Fertility and Fertilizers	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2205	Introduction to Precision Mgt. Software	3
AGRI	2212	Corn and Soybean Production	3
AGRI	2214	Machinery Principles and Management	3
AGRI	2216	Introduction to Meat Science	3
AGRI	2251	Principles of Farm & Ranch Management	4
AGRI	2252	Economic Principles of Agricultural Marketing	2
AGRI	2297	Agri-Production Management Internship	2-8
AUTO	1194	Commercial Driver's License Learner Permit Preparation	1
AUTO	1195	Commercial Drivers License	2
FBMA	2120	Fundamentals of Financial Management/Business Plan	3
FBMA	2134	Directed Study-Personnel Management	2
		Total Credits	**72**

Agriculture Production Management, A.S.

Location: Worthington

This two-year program is designed to prepare students for employment in production agriculture as farm operators or in fields of employment related to farm production or for continuing their education at a four-year institution. Students who plan to transfer are encouraged to review the requirements of the transfer institution and plan their programs accordingly. Students in this program will receive the A.S. degree upon successful completion of the following requirements and suggested courses:

AGRI	1101	Introduction to Animal Science	3
AGRI	1102	Principles of Agronomy	3
AGRI	1103	Introduction to Soil Science	3
AGRI	1110	Introduction to Horticulture	3
AGRI	1125	Custom Application	2
AGRI	1151	Farm Records & Business Analysis	4
AGRI	1152	Agricultural Marketing and Pricing	3
AGRI	2201	Principles of Animal Nutrition	3
AGRI	2202	Weed Science	3
AGRI	2203	Soil Fertility & Fertilizers	3
AGRI	2204	Introduction to Precision Agriculture	3
AGRI	2205	Introduction to Precision Management Software	2
AGRI	2212	Corn and Soybean Production	3
AGRI	2214	Machinery Principles and Management	3
AGRI	2216	Introduction to Meat Science	3
AGRI	2251	Principles of Farm and Ranch Management	4
AGRI	2252	Economic Principles of Agricultural Marketing	3
AGRI	2297	Ag Production Mgt. Intern	2-8

Automotive Technician, Diploma

Locations: Jackson

The Automotive Technician Program provides students with the skills needed to pursue a career in any area of automotive repair. Our program takes great pride in its professionalism. A dress code, attendance policy, and student conduct code are strictly enforced. Because the program is so intensive, class size is limited to ensure optimum training.

AUTO	1120	Air Conditioning	3
AUTO	1126	Steering/Suspension/Alignment	3
AUTO	1131	Brakes	3
AUTO	1136	Engine Technology and Lab	4
AUTO	2107	Automatic Transmissions	3
AUTO	2113	Manual Drivetrain and Axles	3
AUTO	2121	Engine Performance II	5
AUTO	2146	Body Computer Controlled Electrical Systems	4
TRAN	1100	Intro to Transportation	2
TRAN	1111	Electrical Fundamentals	3
TRAN	1145	Engine Performance I	2
		Total Credits	**35**

Business Accounting, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington and Online

The Business Accounting Diploma is designed to provide a strong foundation of knowledge and skills for students interested in entering the workforce or continuing their education. This program prepares the student to organize, maintain, analyze and interpret accounting data to make informed business decisions.

ACCT	1112	Accounting Information Systems	1
ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
BUS	1104	Business Mathematics	3
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
BUS	2221	Principles of Management	3
BUS	2230	Principles of Marketing	3
BUS	2241	Business Law	3
CSCI	1102	Computer Applications I	3
ECON	2202	Principles of Microeconomics	3
		Total Credits	**31**

Business Management, A.A.S.

Location: Worthington

This degree is designed for students who plan to enter the job market after completion of the program. It prepares students for entry-level positions in offices, private industry, the civil service, etc., and a variety of business fields. The following are the requirements for attaining a degree in this area:

1. General education requirements - sufficient to meet the minimum general education requirements of the general A.A.S. degree.
2. Career courses - to include the following:

BUS	1101	Introduction to Business	4
*BUS	1104	Business Mathematics	3
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
BUS	2221	Principles of Management	3
BUS	2230	Principles of Marketing	3
BUS	2241	Business Law	3
BUS	2242	Business Communications	3
CSCI	1102	Computer Applications I	3
CSCI	2100	Computer Applications II	3
		General Education Electives	15
		Electives	12
		Total Credits	**60**

* Course may be waived by petition

Business Management, A.S.

Locations: Worthington and Online

This degree is designed for students planning to enter the job market after completion of the program or to continue their education in four-year colleges. It prepares students for entry-level positions in offices, private industry, civil service, and a variety of business fields. The following are the requirements for attaining a degree in this area. (A course in keyboarding and/or keyboarding proficiency is strongly recommended). To complete the degree students must fulfill the following requirements:

1. Successful completion of a minimum of 60 credits of which at least 15 must be earned at Minnesota West Community & Technical College.

2. A grade point average of 2.0 ("C") or better.

3. Meet the minimum of 30 credits of general education as required by the A.S. degree.

BUS	1101	Introduction to Business	4
BUS	2201	Principles of Accounting I	4
BUS	2202	Principles of Accounting II	4
*BUS	2221	Principles of Management	3
*BUS	2230	Principles of Marketing	3

Choose a minimum of twelve (12) electives credits from the following:

BUS	1104	Business Mathematics	3
BUS	2232	Professional Selling	3
BUS	2241	Business Law	3
BUS	2242	Business Communications	3
BUS	2275	Human Resource Management	3
ECON	2202	Principles of Microeconomics	3

*Transfer with validation by the receiving institutions:
Methods of validation:

a. Institutions have the option of course validation or
b. Students can "test out" by exam or may receive "deferred credit" by successful completion of one specified advanced course in the program at the receiving institution. The total number of program credits required shall not exceed that for students who entered the institution as first year students.

Management, Certificate.

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

Students in the Management certificate program will receive basic business knowledge which can be used immediately in the workplace or as part of a 2 year business degree.

Students will focus on the business environment, management practices and marketing principles.

BUS	1101	Introduction to Business	4
BUS	2221	Principles of Management	3
BUS	2230	Principles of Marketing	3
		Two Business or Accounting Courses	6
		Total Credits	**16**

Business Transfer Pathway, A.S.

Locations: Online

The Business Transfer Pathway (AS) offers students a powerful option: the opportunity to complete an Associates of Science degree with course credits that directly transfer to designated Business bachelor's 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 a 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.

BUS	1101	Introduction to Business	4
BUS	2201	Principles of Accounting I	1
BUS	2202	Principles of Accounting II	4
BUS	2221	Principles of Management	3
BUS	2230	Principles of Marketing	3
BUS	2241	Business Law	3
CMST	1101	Public Speaking	3
CSCI	1102	Computer Applications I	3
ECON	2201	Principles of Macroeconomics	3
ECON	2202	Principles of Microeconomics	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
MATH	1105	Introduction to Probability and Statistics	3
MATH	1111	College Algebra	4
PHIL	2101	Ethics Theory and Practice	3
		Science – Goal 3	3
		Elective – Goal 5	2
		Business Elective	5
		Total Credits	**60**

Carpentry Diploma,

Location: Pipestone

The Carpentry program prepares students for a career as a carpenter in residential and commercial construction. In this program students study the concept of green building. Green building is a growing trend among home builders nationwide and incorporates a whole building design approach into every phase of the building process, including design, construction, energy, water efficiency, lot development, resource efficient building design to enhance the well-being of occupants, and to minimize negative impacts on the community and natural environment.

Students interested in this program should like to work outdoors, have an interest in doing hands-on work with common building materials, possess good problem solving skills, have strong math skills, and have a healthy work ethic. Most importantly, students should have the desire to learn and expand their knowledge of the construction industry.

CRPT	1101	Tool Safety, Construction Terms, & Materials	2
CRPT	1155	Building Science	2
CRPT	1175	Construction Finishing Techniques	5
CRPT	1180	Construction Math	1
CRPT	1185	Construction Principles	2
CRPT	1190	Framing & Construction	3
CRPT	2220	Intermediate Construction	2
CRPT	2225	Construction Finishing Essentials	5
CRPT	2230	Construction Essentials	2
CRPT	2234	Construction Techniques	3
CRPT	2270	Construction Business Management	2
CRPT	2271	Construction Drafting, Design, and Blueprint Reading	3
		Total Credits	**32**

Carpentry, Certificate

Location: Pipestone and Lower Sioux Community

The certificate program gives the student an opportunity to get into the workforce quicker while giving them an overview of basic carpentry skills. The certificate program is designed to offer high school students the opportunity to complete the certificate before exiting high school.

CRPT	1101	Tool Safety, Construction Terms, & Materials	2
CRPT	1190	Framing & Construction	3
CRPT	2230	Construction Essentials	2
CRPT	2234	Construction Techniques	3
		Total Credits	**10**

Chemistry Transfer Pathway, A.S.

Location: Worthington

The Chemistry Transfer Pathway AS offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Chemistry 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.

CHEM	1101	General Chemistry I	4
CHEM	1102	General Chemistry II	4
CHEM	2201	Organic Chemistry I	5
CHEM	2202	Organic Chemistry II	5
ENGL	1101	Composition I	3
MATH	1121	Calculus I	4
MATH	1122	Calculus II	4
PHYS	2121	General Physics I	5
PHYS	2122	General Physics II	5
		Choose from Goal Area 5 Electives	3-8
		Choose from Goal Area 6 Electives	3-8
Choose one of the following:			**3**
ENGL	1102	Composition II	3
ENGL	2276	Composition: Technical Writing	3
ENGL	1130	Introduction to Creative Writing	3
Choose one of the following:			**3**
CMST	1101	Public Speaking	3
CMST	1103	Interpersonal Communication	3
CMST	1130	Small Group Communication	3
Recommended Electives:			**3**

MATH	2201	Calculus III	4
BIOL	1110	Principles of Biology I	4
*HLTH	1101	Personal Wellness	3
*HLTH	2220	Drugs, Society, and the Individual	4

*Recommended for students interested in secondary education.

Total Credits 60

Communication Studies Transfer Pathway, A.A.

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

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.*

ART	2240	Art History I	3
BIOL	1100	Survey of Biological Science	3
CMST	1101	Public Speaking	3
CMST	1103	Interpersonal Communication	3
CMST	1120	Intercultural Communication	3
CMST	1130	Small Group Communication	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
ENGL	1105	Introduction to Literature	3
HIST	1105	Minnesota History	3
HLTH	1101	Personal Wellness	3
MATH	1107	Concepts in Math	3
MUSC	1105	Music Appreciation	3
NSCI	1100	Issues in the Environment	3
PHED	1140	Body Conditioning	2
PHYS	1100	Survey of Physics	3
PSCI	1201	American Government & Politics	3
SOC	1101	Introduction to Sociology	3
SOC	1102	Social Problems	3
STSK	1110	Freshman Seminar	1
THTR	1101	Introduction to Theatre	3
		Total Credits	**60**

Community Health Worker, Certificate

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Community Health Worker (CHW) program will prepare you to obtain employment in a variety of organizations. Community Health Workers perform a broad range of health- related functions and play an important role in bridging the gap between cultures and health care systems. A CHW will work with health care organizations to increase cultural competence, improve access to health care for racial and ethnic minorities, improve the quality of care for the chronically ill, promote healthy communities, and educate families about access to and use of health care coverage.

CMHW	1000	Community Health Worker Role, Advocacy, Outreach, and Resources	3
CMHW	1100	Health Communication, Teaching, and Capacity Building	3
CMHW	1200	Documentation, Legal & Ethical Issues In Community Health Work	3
CMHW	1250	Health Promotion I	2
CMHW	1300	Health Promotion II	3
CMHW	1400	Community Health Worker Internship	2
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
		Total Credits	**17**

Computer & Networking Technology, A.A.S.

Location: Granite Falls, Jackson, and Online

Computer & Networking technicians solve software, hardware and networking issues. They set up and maintain computer systems and networks. Technicians provide hands on and remote support for end users of computers and networks. This degree provides hands-on training in computer hardware, operating system and networks. Students learn skills necessary to provide support of industry leading computer systems and networks.

CST	1101	IT Exploration	2
CST	1125	Operating Systems	3
CST	1135	LINUX Operating System	3
CST	1190	Introduction to Networking	4
CST	1200	Introduction to Information Security	4
CST	1220	Cybersecurity	3
CST	1300	Computer Forensics	3
CST	1500	Routers and Switches	3
CST	2110	Introduction to Hardware	3
CST	2150	Advanced Routing Technology	3
CST	2224	Windows Client/Server Administration I	3
ADSA	1141	Customer Service for the Office Professional	2
CST	2300	Windows Client/Server Administration II	3
CST	2350	Virtual Computing	3
CST	2600	Fundamentals of Wireless Networking	3
		*General Education Electives (CMST 1103)	15
		Total Credits	**60**

Computer Support Technician, Diploma

Location: Granite Falls

Computer support technicians solve software and hardware problems, set up computer systems, install new software and hardware, train users, and maintain networks. Support technicians may work directly with computer users in person or provide support over the phone through a help desk. This major provides hands-on training in computer operating system operation, the use of application software, network administration and installation, software installation and removal, computer maintenance and repair, hardware installation, and help desk skills. Provides the students with practical knowledge needed to solve computer problems. Accuplacer test scores determine placement in Math and English courses and may require additional courses to be completed.

CST	1101	IT Exploration	2
CST	1125	Operating Systems	3
CST	1190	Introduction to Networking	4

CST	1200	Introduction to Information Security	4
CST	2110	Introduction to Hardware	3
CST	2215	PC Maintenance & Repair Software	3
CST	2224	Windows Client/Server Administration I	3
ADSA	1141	Customer Service for the Office Professional	2
		General Education Electives	6
		Total Credits	**30**

(Computer) Information Technology, Certificate

Location: Online

CST	1101	IT Exploration	2
CST	1125	Operating Systems	3
CST	1190	Introduction to Networking	4
CST	2110	Introduction to Hardware	3

Gen Electives (Recommend CMST 1103)

		Electives	3
		Total Credits	**15**

(Computer) CISCO Networking, Certificate

Location: Granite Falls, Jackson, Pipestone, Worthington, and Online

The Cisco Networking Certificate includes four courses from the Cisco CCNA curriculum and aligns to Federal standards for networking job roles of system administrators and security professionals. Graduates will be prepared to take the CCNA certification test. Cisco Certified Network Associate (CCNA®) validates the ability to install, configure, operate, and troubleshoot medium-size route and switched networks, including implementation and verification of connections to remote sites in a WAN. CCNA curriculum includes basic mitigation of security threats, introduction to wireless networking concepts and terminology, and performance-based skills. The widely respected Cisco Career Certifications bring valuable, measurable rewards to network professionals, their managers, and the organizations that employ them.

CST	1190	Introduction to Networking	4
CST	1500	Routers and Switches	3
CST	2150	Advanced Routing Technology	4
CST	2600	Fundamentals of Wireless Networking	3
		Technical Elective	1
		Total Credits	**15**

Cosmetology, Diploma

Locations: Jackson and Pipestone

Students receive theory as well as practical experience in hair, skin, and nail care through classroom study, demonstrations and practical experience in the campus clinic. Some areas of study include safety and sanitation, customer service, and job seeking skills. Upon successful completion of hours and quota requirements mandated by the Minnesota Board of Cosmetologists Examiners, students must also take a written and a skills certification tests for licensure. Some of the opportunities include salon owner, salon manager, stylist, hair colorist, nail technician, esthetician, manufacturer's representative, state board inspector, just to name a few.

COSM	1100	Preclinic Introduction	4
COSM	1105	Preclinic Hair Care	4
COSM	1110	Preclinic Nail Care	4
COSM	1115	Preclinic Color and Texture	4
COSM	1120	Preclinic Skin Care	4
COSM	1135	Salon Preparation	3
COSM	1130	Advanced Hair Care	3
COSM	1140	Clinic I	4
COSM	1145	Clinic II	4
COSM	1150	Clinic III	4
COSM	1155	Clinic IV	3
COSM	1160	Clinic V	4
COSM	1165	Clinic VI	3
COSM	1170	Clinic VII	3
COSM	1175	Clinic VIII	3
COSM	1181	License Prep. for Cosmetology I	2
COSM	1182	License Prep. for Cosmetology II	2
		Total Credits	**58**

Cosmetology, extended hours for other states

COSM	1230	Licensure Seminar	2
COSM	1220	Salon Operations VIII	1-18
		Total Credits	**66**

Esthetician, Certificate

Locations: Jackson and Pipestone

Students will receive theory as well as practical experience in skin care through classroom study, demonstrations and clinical experience. Some areas of study include safety and disinfection control, customer service, and job seeking skills. Students will also develop the skills necessary to perform facials, facial massage, consultation, analysis and microdermabrasion. Upon successful completion of quota and hour requirements mandated by the Minnesota Board of Cosmetologists Examiners, students must take a skills certification and written exam for licensure. Esthetics is one of the fastest growing areas in the beauty industry.

COSM	1100	Preclinic Introduction	4
COSM	1120	Preclinic Skin Care	4
COSM	1135	Salon Preparation	3
COSM	1145	Clinic II	4
COSM	1155	Clinic IV	3
COSM	1165	Clinic VI	3
COSM	1182	License Prep. for Cosmetology II	2
		Total Credits	**23**

Hair Technician, Diploma

Locations: Jackson and Pipestone

Students receive theory as well as practical experience in haircare through classroom study, demonstrations and practical experience in the campus clinic. Some areas of study include safety and sanitation, customer service, and job seeking skills. Upon successful completion of hours and quota requirements mandated by the Minnesota Board of Cosmetologists Examiners, students must also take a written and a skills certification test for licensure. Some of the opportunities include salon owner, salon manager, stylist, hair colorist, manufacturer's representative, state board inspector, just to name a few.

COSM	1100	Preclinic Introduction	4
COSM	1105	Preclinic Hair Care	4
COSM	1115	Preclinic Color and Texture	4
COSM	1130	Advanced Hair Care	3
COSM	1135	Salon Preparation	3
COSM	1160	Clinic V	4

COSM	1165	Clinic VI	3
COSM	1170	Clinic VII	3
COSM	1175	Clinic VIII	3
COSM	1181	License Preparation for Cosmetology I	2
COSM	1182	License Preparation for Cosmetology II	2
		Total Credits	**35**

Nail Technician, Certificate

Locations: Jackson and Pipestone

Students will receive theory as well as practical experience in nail care through classroom study, demonstrations and clinical experience. Some areas of study include safety and disinfection control, customer service, and job seeking skills. Students will also develop skills necessary to perform manicures, pedicures, artificial nail enhancements, massage techniques, and consultation. Upon successful completion of quota and hour requirements mandated by the Minnesota Board of Cosmetologists Examiners, students must also take a skills certification and written exam for licensure. Skilled nail technicians are in very high demand.

COSM	1100	Preclinic Introduction	4
COSM	1110	Preclinic Nail Care	4
COSM	1220	Salon Operations VIII	5
		Total Credits	**13**

Dental Assistant, A.A.S.

Location: Canby

The Dental Assistant program is designed to prepare individuals for a career in a variety of oral healthcare settings. This may be as a clinical chairside assistant to a dentist or dental hygienist or as a non-clinical practice management assistant. The program is accredited by the American Dental Association Commission on Dental Accreditation and upon completion the student will take national and state examinations leading to certification and licensure in dental assisting.
The course work includes content in general studies, bio-medical and dental sciences, clinical practices, and expanded functions allowed by the State of Minnesota.

Students will spend 10 weeks in extramural clinical experiences in area dental offices.

CMST	1101	Public Speaking	3
		or	
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
PSYC	1101	Introduction to Psychology	4
		or	
SOC	1101	Introduction to Sociology	3
		Area 3 Electives	3
GSCL	1105	Job Seeking Skills	1
General Education Electives			5-6
DEN	1100	Oral Radiology I	3
DEN	1105	Oral Radiology II	3
DEN	1110	Dental Science	3
DEN	1115	Dental Health	2
DEN	1120	Chairside Dental Assisting I	3
DEN	1125	Chairside Dental Assisting II	4
DEN	1130	Preclinical Dental Assisting	4
DEN	1135	Dental Practice Management	2
DEN	1140	Dental Materials	3
DEN	1145	Expanded Functions A	3
DEN	1150	Expanded Functions B	3
DEN	1155	Extramural Clinical Experience I	3
DEN	1160	Extramural Clinical Experience II	3
DEN	1180	Dental Ethics and Jurisprudence	1
DEN	1185	Nitrous Oxide Inhalation Admin	1
		Total Credits	**60**

Dental Assistant, Diploma

Location: Canby

CMST	1101	Public Speaking	3
		or	
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
GSCL	1105	Job Seeking Skills	1
DEN	1100	Oral Radiology I	3
DEN	1105	Oral Radiology II	3
DEN	1110	Dental Science	3
DEN	1115	Dental Health	2
DEN	1120	Chairside Dental Assisting I	3
DEN	1125	Chairside Dental Assisting II	4
DEN	1130	Preclinical Dental Assisting	4
DEN	1135	Dental Practice Management	2
DEN	1140	Dental Materials	3
DEN	1145	Expanded Functions A	3
DEN	1150	Expanded Functions B	3
DEN	1155	Extramural Clinical Experience I	3
DEN	1160	Extramural Clinical Experience II	3
DEN	1180	Dental Ethics and Jurisprudence	1
DEN	1185	Nitrous Oxide Inhalation Admin	1
		Total Credits	**48**

Diesel Technology, A.A.S.

Location: Canby

The Diesel Technology degree prepares future Technicians for the ever-changing diesel industry. Today, Diesel Technicians are in high demand. Individuals will learn to overhaul engine assemblies, troubleshoot electrical systems, operate diagnostic software devices, and work on air conditioning systems. They will learn about hydraulics, powertrains, fuel injection systems, and have the opportunity to experience how these systems work together to drive the diesel industry.

Service department operations, computerized diagnostics, and GPS system operations also help prepare individuals for leadership roles in the diesel industry. Through the summer internship, students gain an understanding of how these courses blend together in the workplace. During their second year of the program, students accelerate their understanding and capabilities. Come join an ever-changing industry where countless opportunities are there for ambitious and driven individuals.

General Education

The 15 General Education Electives must be selected from 3 of the 10 Goal Areas of the Minnesota Transfer Curriculum.

General Education electives from: English, Biology, Chemistry, Physics, Math, Natural Science, Art, Foreign

Language, Literature, Music, Philosophy, Theatre, Western Civilization, Economics, Geography, History, Political Science, Psychology, and Sociology.

Technical Electives

DSL	1100	Diesel Engine Theory	3
DSL	1105	Diesel Engine Lab	4
DSL	1110	Electrical Theory	2
DSL	1115	Electrical Lab	2
DSL	1120	Powertrain Principles	2
DSL	1125	Powertrain Lab	3
DSL	1130	Hydraulics Theory and Application	3
DSL	1135	Fuel Injection Principles	3
DSL	1142	Heating and Air Conditioning Systems	3
DSL	1150	Internship	4
DSL	2106	Advanced Powertrain Theory	3
DSL	2111	Advanced Powertrain Lab	4
DSL	2131	Service Department Operations and Procedures	3
DSL	2136	Fuel Systems Theory	5
DSL	2137	Fuel Systems Lab	5
DSL	2155	Diesel Engine Control Systems	3
DSL	2180	Computerized Diagnostic Systems	2
DSL	2190	GPS Systems Operations	2
ELWT	1102	Hydraulics Lab	1
		Total Credits	**72**

Diesel Mechanics, Diploma

Location: Canby

DSL	1100	Diesel Engine Theory	3
DSL	1105	Diesel Engine Lab	4
DSL	1110	Electrical Theory	2
DSL	1115	Electrical Lab	2
DSL	1120	Powertrain Principles	2
DSL	1125	Powertrain Lab	3
DSL	1130	Hydraulics Theory and Application	3
DSL	1135	Fuel Injection Principles	3
DSL	1142	Heating and Air Conditioning	3
DSL	1150	Internship	4
DSL	2106	Advanced Powertrain Theory	3
DSL	2111	Advanced Powertrain Lab	4
DSL	2131	Service Department Operations & Procedures	3
DSL	2136	Fuel Systems Theory	5
DSL	2137	Fuel Systems Lab	5
DSL	2155	Diesel Engine Control Systems	3
DSL	2180	Computerized Diagnostics	2
DSL	2190	GPS Systems Operations	2
ELWT	1102	Hydraulics Lab	1
		Total Credits	**57**

Advanced Diesel, Certificate

Location: Canby

DSL	1170	Diesel Welding	3
DSL	2145	Advanced Diesel	4
DSL	2150	Advanced Engine Lab	5
		Total Credits	**12**

Basic Diesel, Certificate

Location: Canby

DSL	1100	Diesel Engine Theory	3
DSL	1105	Diesel Engine Lab	4
DSL	1110	Electrical Theory	2
DSL	1115	Electrical Lab	2
DSL	1135	Fuel Injection Principles	3
DSL	1142	Heating and Air Conditioning Systems	3
		Total Credits	**17**

Early Childhood Education Transfer Pathway, A.S.

Location: Granite Falls, Worthington, Online

Early Childhood Education Transfer Pathway A.S. Degree: This program prepares students for transfer to an early childhood teacher licensure program at a four-year institution. Students study child development, guidance, relationships, nutrition, health, and safety, cultural sensitivity, and strategies for helping young children develop. This program is available on campus, in hybrid modes, and online. Courses meet Minnesota Department of Human Services (DHS) educational requirements for teachers and assistant teachers in a child care setting.

EDUC	1200	Introduction to Early Childhood Education	3
EDUC	1230	Diverse Children & Family Relations	3
EDUC	1290	Observation & Assessment	3
EDUC	1560	Practicum/Internship	3
EDUC	2560	Introduction to Language & Literacy	3
EDUC	2900	Introduction to Special Education	3
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
MATH	1109	Math Skills for Elementary Education	3

Suggested program electives include EDUC 1340: Planning and Implementing, EDUC 2300: Childhood Poverty: Exploring the Issues, EDUC 2200: Infant and Toddler Development and Learning Experiences

Suggested General Education Electives: NSCI 1100 Issues in the Environment, ART 1120 Art Appreciation, MUSC 1105 Music Appreciation, HIST 1111 Early Western Civilization , ART 2240 Art History, GEOG 1100 Introduction to Geography, BIOL 1110 Principles of Biology, and ENGL 2120 Children's Literature.

Early Childhood, Certificate

Location: Granite Falls

Persons completing this program would work in a variety of settings related to child care and education such as preschools, day cares, public schools, Head Start programs, and private homes (e.g. nannies). Students enrolled in the program receive instruction in safety, health, nutrition, guidance, child development, and the preparation and presentation of learning experiences to enhance all areas of a child's development. This course of study is designed to improve the quality of services children receive, to increase professionalism in graduates, and to promote the overall development of children. Lab School and field experience in various settings provide opportunities for students to apply their knowledge and skills.

EDUC	1240	Family & Community Relations	3
EDUC	1262	Creative Activities and Environment	3
EDUC	1265	Child Growth and Development	3
EDUC	1267	Health, Wellness & Nutrition	3

EDUC	1269	Behavior Guidance	3
GSCL	1105	Job Seeking Skills	1
		Total Credits	**16**

Early Childhood, Diploma
Location: Granite Falls

Persons completing this program would work in a variety of settings related to child care and education such as preschools, day cares, public schools, Head Start programs, and private homes (e.g. nannies). Students enrolled in the program receive instruction in safety, health, nutrition, guidance, child development, and the preparation and presentation of learning experiences to enhance all areas of a child's development. This course of study is designed to improve the quality of services children receive, to increase professionalism in graduates, and to promote the overall development of children. Lab School and field experience in various settings provide opportunities for students to apply their knowledge and skills.

Prerequisite: Completed certificate program to enter the Diploma program.

EDUC	1340	Planning and Implementing with lab	4
EDUC	1510	Internship	4
EDUC	2200	Infant & Toddler Development and Learning Experiences	4
EDUC	2560	Introduction to Language & Literacy	3
EDUC	2900	Introduction to Special Education	3
		Total Credits	**34**

Education Paraprofessional, Certificate
Location: Online

This certificate program prepares graduates for employment in a K-12 school district and provides a curriculum which meets the core competencies. The curriculum will provide a career pathway for paraprofessionals that will allow them to begin, continue, and enhance their education. The curriculum is organized to move the learner through the selected course work online and through the A.S. degree without unnecessary duplication of course work. The certificate is made up of four required and five elective online classes developed by incorporating the core competencies that have been produced for paraprofessionals by the Institute on Community Integration at the University of Minnesota. The coursework is designed to begin students with a 12-credit certificate, which is also part of the Child Development, Diploma; Child Development A.S; as well as the Child Development Track of the Human Services degree.

EDUC	1265	Foundations of Child Development	2
EDUC	1267	Health, Nutrition & Safety	2
EDUC	1270	Guidance: Managing the Physical & Social Environment	2
EDUC	2900	Introduction to Special Education	3
		Choose one elective from the following:	
EDUC	1240	Family and Community Relations	3
CSCI	1102	Computer Applications I	3
ASL	1121	American Sign Language I	3
		Total Credit	**12**

Electric Utility Substation Technology, A.A.S.
Location: Jackson

Curriculum includes extensive hands-on practice and theory in single and three phase metering, overcurrent and complex relaying, single-and-three phase transformers, regulators, capacitors, generation, transmission, distribution and many other subjects. Career opportunities include installing and calibrating electrical watt-hour meters, planning and working in electrical substations, testing and installing high voltage and high current relays used in transmission and distribution lines, electrical dispatcher, or a power plant maintenance technician.

ENGL	1101	Composition I	3
MATH		MN Transfer Area 4 course	3
CSCI	1102	Computer Applications I	3
		Humanities Electives	3
		General Education Electives	7
ELCO	1100	Electric Circuits Fundamentals	3
ELCO	1105	Electric Circuits Fundamentals Lab	3
ELEC	1230	Safety Principles and OSHA	1
ELEC	2205	Electric Motor Control I	4
ELEC	2225	Electric Motor Control II	4
ELEC	2230	Programmable Logic Controllers	4
ELUT	1105	Blueprint, Schematics and Transit	3
ELUT	1110	Transformer Banking I	3
ELUT	1115	Generation, Transmission, and Distribution	3
ELUT	1120	Specification, Testing and Maintenance	2
ELUT	2121	Protective Relays	2
ELUT	2116	Reclosures & Protective Equipment	2
ELUT	2110	Transformer Banking II	2
ELUT	2100	Electrical Metering	3
ELUT	2126	Regulators and Capacitors	2
		General Education Electives from:	

English, Biology, Chemistry, Philosophy, Theatre, Western Civilization, Economics, Geography, History, Political Science, Psychology, and Sociology

Humanities Electives from the following:

Art, Foreign Language, Literature, Music, Philosophy, Theatre, Western Civilization

Total Credits **60**

Electric Utility Substation Technician, Diploma
Location: Jackson

General Education and/or GSCL1105 Job Seeking Skills 7

CSCI	1102	Computer Applications I	3
ELCO	1100	Electric Circuits Fundamentals	3
ELCO	1105	Electric Circuits Fundamentals Lab	3
MATH	1100	Integrated Math or higher	3
ELEC	1230	Safety Principles and OSHA	1
ELEC	2205	Electric Motor Controls I	4
ELEC	2225	Electric Motor Control II	4
ELEC	2230	Programmable Logic Controllers	4
ELUT	1105	Blueprint, Schematics, and Transit	3
ELUT	1110	Transformer Banking I	3
ELUT	1115	Generation, Transmission and Distribution	3
ELUT	1120	Specifications, Testing and Maintenance	2
ELUT	2100	Electrical Metering	3

ELUT	2110	Transformer Banking II	2
ELUT	2116	Reclosures and Protective Equipment	2
ELUT	2121	Protective Relays	2
ELUT	2126	Regulators and Capacitors	2
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
		Electives	5
		Total Credits	**60**

Electrician, A.A.S.

Locations: Canby and Jackson

The electrician program prepares individuals to apply their knowledge and skills to install, operate, maintain, and repair electrical apparatuses and systems such as residential, commercial, and industrial electric - power wiring, and D.C. and A.C. motors, controls, and electrical distribution panels. Also, included is instruction in the use of test equipment.

General Education requirements **15**

These must be selected from 3 of the 10 goal areas of the Minnesota Transfer Curriculum (see page 5)

ELCO	1100	Electrical Circuits Fundamentals **and**	3
ELCO	1105	Electrical Circuits Fund. Lab	3
		or	
ELCO	1110	AC/DC I and	3
ELCO	1120	AC/DC II	3
ELEC	1200	Residential Wiring I	5
ELEC	1205	National Electric Code I	2
ELEC	1210	Residential and Farm Wiring	5
ELEC	1215	National Electric Code II	2
ELEC	1220	Conduit Installation	4
ELEC	1225	Electric Motors	3
ELEC	1230	Safety Principles and OSHA	1
ELEC	1235	Applied Electrical Calculations	2
ELEC	1240	Commercial Wiring	5
ELEC	2200	Low Voltage	2
ELEC	2205	Electric Motor Controls I	4
ELEC	2210	National Electrical Code III	2
ELEC	2220	Industrial Wiring	3
ELEC	2225	Electric Motor Controls II	4
ELEC	2230	Programmable Logic Controllers	4
ELEC	2235	National Electric Code IV	2
ELEC	2240	Transformers	3
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
ELEC	2250	Heating and Air Cond. Controls	3
ELEC	2265	Alternative Energies	3
		Total Credits	**81**

Electrician, Diploma

Locations: Canby and Jackson

ELCO	1100	Electrical Circuits Fundamentals and	3
ELCO	1105	Electrical Circuits Fund. Lab	3
		or	
ELCO	1110	AC/DC I and	3
ELCO	1120	AC/DC II	3
ELEC	1200	Residential Wiring I	5
ELEC	1205	National Electric Code I	2
ELEC	1210	Residential & Farm Wiring	5
ELEC	1215	National Electric Code II	2
ELEC	1220	Conduit Installation	4
ELEC	1225	Electric Motors	3
ELEC	1230	Safety Principles and OSHA	1
ELEC	1235	Applied Electrical Calculations	2
ELEC	1240	Commercial Wiring	5
ELEC	2200	Low Voltage	2
ELEC	2205	Electric Motor Controls I	4
ELEC	2210	National Electrical Code III	2
ELEC	2220	Industrial Wiring	3
ELEC	2225	Electric Motor Controls II	4
ELEC	2230	Programmable Logic Controllers	4
ELEC	2235	National Electric Code IV	2
ELEC	2240	Transformers	3
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
ELEC	2265	Alternative Energies	3
ELEC	2250	Heating and Air Cond. Controls	3

General Education, or Related, of 8 credits would include the following courses:
GSCL 1105 Job Seeking Skills
or
English, Biology, Chemistry, Math above 1000 level, Physics, Natural Science, Art, Foreign Language, Literature, Music, Philosophy, Theatre, Western Civilization, Economics, Geography, History, Political Science, Psychology, and Sociology

Total Credits **74**

Emergency Medical Services, Certificate

Location: Jackson and Marshall Center Site

An instructional program that prepares individuals to perform initial medical diagnosis, treatment, and comprehensive care in medical crises under the general supervision of a coordinating physician. Includes instruction in all aspects of basic health care; disease, disorder, and injury symptomatology and diagnosis; emergency medical treatment procedures for various injuries and disease outbreaks; basic pharmacology; anesthetics; intravenous and other drug administration procedures; obstetrics procedures; basic surgical techniques; emergency medical equipment operation and maintenance; special care of patients exposed to heat, cold, radiation, or contagious disease; and administrative aspects of emergency medicine. Programs may include emergency vehicle operation and patient transportation procedures, depending on level of training.

EMS	1101	Introduction to Emergency Medical Technician	2.5
EMS	1102	EMT Completion/Bridge	4.5
HC	1180	Medical Terminology in Healthcare	2
HC	1151	Body Structures & Function	3
HC	1290	Health Care and Society	1
HC	2120	Disease Conditions	3
		Or	
ADSM	1120	Medical Office Procedures	3
		Total Credits	**16**

Emergency Medical Technician, Certificate

Location: Jackson and Marshall Center Site

This certificate meets the initial requirements of the EMS Regulatory Board and the National Registry for EMTs for direct employment with an Emergency Ambulance Service, basic transport service, and emergency room, law enforcement or fire department. Successful completion of

this course, the practical skills exam and the designated readiness written exams allows the student eligibility to take the National Registry Exam.

EMS	1101	Introduction to Emergency Medical Technician	2.5
EMS	1102	EMT Completion/Bridge	4.5
		Total Credits	**7**

(Energy) Biofuels Technology; Biodiesel, Certificate

Location: Granite Falls and Online

This 18-credit program is offered to students in an on-line format. The program courses provide foundational learning to support process plant technologies and operation with a concentration in biodiesel technologies.

RNEW	1100	Process Dynamics	3
RNEW	1102	Biodiesel Fundamentals	2
RNEW	1107	Industrial Safety	2
RNEW	1115	Mechanical Fundamentals for Process Controls	3
RNEW	1125	P & ID, PFD Reading	1
RNEW	1160	Instrumentation & Control	3
RNEW	1175	Industrial Water Treatment	2
RNEW	1195	Biodiesel Technologies & Regulatory Issues	2
		Total Credits	**18**

(Energy) Biofuels Technology; Ethanol, Certificate

Location: Granite Falls and Online

The Biofuels Technology Ethanol program focuses on ethanol production. This certificate will enhance an individual's ability to enter and advance a career in the renewable energy industry, such as a process technician or in sales and marketing.

RNEW	1100	Process Dynamics	3
RNEW	1101	Ethanol Process Fundamentals	2
RNEW	1107	Industrial Safety	2
RNEW	1115	Mechanical Fundamentals for Process Controls	3
RNEW	1125	P & ID, PFD Reading	1
RNEW	1160	Instrumentation & Control	3
RNEW	1175	Industrial Water Treatment	2
RNEW	2120	Ethanol Separation Technology	2
		Total Credits	**18**

Energy Technical Specialist, A.A.S.

Location: Canby, Granite Falls and Online

This degree will prepare students for work as technicians in energy technology and convey the skills and knowledge necessary to be successful in the traditional and renewable energy fields.

In addition to 15 General Education credits, students enrolled in the Energy Technical Specialist program will study a 35-credit core curriculum providing a strong base in electrical, electronic and mechanical systems.

Students will select 10 credits in an area of specialization to complete their program of study from the following: Wind Energy, Ethanol, Biodiesel, Power Generation or Solar Energy.

The Energy Technical Specialist degree is offered through a partnership of multiple colleges in the Minnesota State Colleges and Universities system. Each of the partner colleges offer courses in their respective areas of expertise, and the participating colleges accept transfer courses from each other.

Students entering into the Energy Technical Specialist program should realize that the energy industry is highly specialized, and there are extraordinary employment characteristics associated in some areas of the power industry. Depending on the energy company, hiring managers may require a federal background check, drug and alcohol testing, and a physical if necessary for a position.

Required Courses

RNEW	1107	Industrial Safety	2
RNEW	1300	Intro to Traditional & Renewable Energy	3
ELCO	1110	AC/DC I **and**	3
ELCO	1120	AC/DC II	3
MECA	1210	Digital/Solid State Electronics *	3
RNEW	1100	Process Dynamics	3
RNEW	1115	Mechanical Fundamentals for Process Controls	3
MECH	2136	Programmable Logic Controllers	3
	or		
RNEW	2543	Program Logic Controls *	3
MECH	1120	Pneumatic Theory	3
MECH	1103	Basic Hydraulics	3
RNEW	1160	Instrumentation & Control	3
RNEW	1125	P & ID & PFD Reading **and**	1
MECH	1115	Computer Aided Design	2
	or		
ECAD	1023	Print Reading*	3
RNEW	1507	Basic Digital Electronics*	3

Specialty Emphasis/Certificate Courses (select 10 credits)

Bio Fuel

RNEW	1101	Ethanol Process Fundamentals	2
RNEW	1102	Biodiesel Process Fundamentals	2
RNEW	1110	Low & High Pressure Boilers	1
RNEW	1130	Pollution Control Fundamentals	2
RNEW	1175	Industrial Water Treatment	2
RNEW	1195	Biodiesel Technologies & Regulatory Issues	2
RNEW	2120	Ethanol Separation Technology	2

Wind Power

ELWT	1100	Wind Energy Fundamentals	3
ELWT	1160	Environmental Health/Safety Wind Energy	1
ELWT	1170	Wind Energy OSHA Standards & Climb Lab	3

General Education Requirements (15 credits)

MATH	1111	College Algebra	3
ENGL	1101	Composition I	3
PHSY	1100	Survey of Physics	3
NSCI	1100	Issues in the Environment	3
		General Education Elective	3
		Total Credits	**60**

*Not a Minnesota West course.

(Energy) Solar Photovoltaic Technician, Certificate
Location: Canby and Jackson

The Solar Photovoltaic program combines lecture and hands on training to provide the skills necessary to install solar PV systems. Graduates will develop an understanding of where PV systems started, where they are now and where they will be in the future. Under minimal supervision graduates must be able to define the solar resource and complete a site assessment. They must also develop a comfort level with the capabilities, limitations, and basic construction of all major PV system pieces. Graduates must also be able to size systems to client's expectations, inspect, commission and maintain the systems.

ELCO	1100	Electrical Circuits Fundamentals **and**	3
ELCO	1105	Electrical Circuits Fundamentals Lab	3
	or		
ELCO	1110	AC/DC I **and**	3
ELCO	1120	AC/DC II	3
ELEC	1205	National Electric Code I	2
ELEC	1220	Conduit Installation	4
ELEC	1230	Safety Principles and OSHA	1
ELEC	1235	Applied Electrical Calculations	2
SOLR	1020	Introduction to Solar Assessment	3
SOLR	1030	Solar Energy Construction Projects	2
SOLR	2020	Advanced Photovoltaic Systems	3
SOLR	2025	Photovoltaic Systems Lab	2
		Total Credits	**25**

(Energy) Wind Energy Technology, A.A.S.
Location: Canby

The Wind Energy Technology program combines lecture and hands-on training to provide skills necessary in completing advanced technical troubleshooting and repairs on wind energy turbines. Under minimal supervision, graduates will be able to carry out complex daily assembly, service, repair, and operations of infrastructure to wind turbine generators and related equipment. Exposure to concepts of basic digital circuits, motor controllers, programmable logic controllers, and computerized data collection, interpretation, storage, and retrieval is evident throughout the program.

Wind Energy Technicians must operate in compliance with company, State, and Federal OSHA requirements and be capable of climbing to 300 feet. They work closely with clients and must have an understanding of environmental issues and politics, written technical skills, and data interpretation.

CSCI	1102	Computer Applications I	3
DSL	1130	Hydraulics Theory and Application	3
ELCO	1110	AC/DC I	3
ELCO	1120	AC/DC II	3
ELEC	1225	Electric Motors	3
ELEC	1235	Applied Electrical Calculations	2
ELEC	2200	Low Voltage	2
ELEC	2205	Electric Motor Control I	4
ELEC	2230	Programmable Logic Controllers	4
ELEC	2240	Transformers	3
ELEC	2265	Alternative Energies	3
ELWT	1101	Introduction to Wind Energy	2
ELWT	1102	Hydraulics Lab	1
ELWT	1110	Mechanical Systems	3
ELWT	1170	Wind Energy OSHA Standards and Climb Lab	3
ELWT	2110	Turbine Siting & Construction	3
		General Education Electives	15
		Total Credits	**60**

(Energy) Wind Energy Mechanic, Diploma
Location: Canby

CSCI	1102	Computer Applications I	3
DSL	1130	Hydraulics Theory and Application	3
ELCO	1110	AC/DC I	3
ELCO	1120	AC/DC II	3
ELEC	1225	Electric Motors	3
ELEC	1235	Applied Electrical Calculations	2
ELEC	2200	Low Voltage	2
ELEC	2240	Transformers	3
ELEC	2265	Alternative Energies	3
ELWT	1101	Introduction to Wind Energy	2
ELWT	1102	Hydraulics Lab	1
ELWT	1110	Mechanical Systems	3
ELWT	1170	Wind Energy OSHA Standards and Climb Lab	3
		Total Credits	**34**

(Energy) Windsmith, Certificate
Location: Online

The Windsmith Certificate is designed as an introductory to the Wind Energy Industry. Individuals wanting to increase their working knowledge of this field are best suited for this course. However, students may be able to secure employment as a Technician by completing the Windsmith Certificate.

This certificate will introduce students to how the wind works, its reliability, and the related economic, environmental, and political issues. Students will also be introduced to the basic operating principles of wind energy systems and status of the industries past and future. OSHA safety regulations and standards that pertain to the construction and maintenance of wind turbines and the energy industry will also be covered. In addition, concepts of AC and DC circuits, as well as basic hydraulic applications are incorporated into the Windsmith certificate.

DSL	1130	Hydraulics Theory and Application	3
ELCO	1110	AC/DC I	3
ELCO	1120	AC/DC II	3
ELEC	2200	Low Voltage	2
ELWT	1101	Introduction to Wind Energy	2
ELWT	1170	Wind Energy OSHA Standards & Climb Lab	3
		Total Credits	**16**

English Transfer Pathway, A.A.
Location: Worthington

The English Transfer Pathway, A.A. offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated English 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.*

This is one example of an English Transfer Pathway, AA degree. Courses with an * are optional courses in this transfer pathway.

*BIOL	1100	Survey of Biological Science	3
*CMST	1103	Interpersonal Communication	3
*CSCI	1102	Computer Applications I	3
*CMST	1150	Exploring Mass Media	3
*ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
ENGL	1120	Introduction to Women's Literature	3
ENGL	1105	Introduction to Literature	3
ENGL	2202	Modern American Literature	3
ENGL	2222	Modern British Literature	3
*HIST	1111	Early Western Civilization	3
*MATH	1107	Concepts in Math	3
*NSCI	1100	Issues in the Environment	3
*PHED	1106	Psychology of Winning	2
*PHIL	2101	Ethics Theory and Practice	3
*PHYS	1100	Survey of Physics	3
*PSCI	2210	Environmental Politics	3
*PSYC	1101	Introduction to Psychology	3
*SOC	1101	Introduction to Sociology	3
*SOC	1102	Social Problems	3
*STSK	1110	Freshman Seminar	1
		Total Credits	**60**

1. Upon completion of this transfer pathway degree, students can transfer to a receiving Minnesota State Institution with junior standing. Four credits will transfer into at least one track (though, at each receiving school's discretion, possibly more than one) of the receiving institution's English major. Those four credits may be applied directly to a required major course when applicable at a particular receiving school or as an elective course in the major. Each receiving institution will make that determination. Thus, after completing the AA transfer pathway at a community college, a student transferring into a university that currently requires 40 credits of English Major coursework would only have to take 36 credits of English major coursework.
2. Students completing the transfer pathway must complete one course of three or more credits in each of the four specified content areas even though some courses may, from a course outcome standpoint, meet the outcome requirements of more than one area. In other words, there are four content areas in the pathway and students must complete four courses to address those content areas.
3. When possible, students are encouraged to take additional English courses beyond the four required by the transfer pathway to better prepare themselves for the major at the BA level. However, students must ensure that any classes they choose help them fulfill the MnTC requirements, and they should also know that there is no guarantee that such courses would transfer to the receiving institution's English major.

Environmental Sciences, A.A.

Location: Worthington

The study of the environment combines knowledge of biological, chemical and physical principles with the broad background of the liberal arts. Students will find a variety of fields in which to specialize at the BA/BS level. At Minnesota West-Worthington campus, students should concentrate on completing the MnTC and a broad science/math background.

BIOL	1110	Principles of Biology I	4
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
CHEM	1101	General Chemistry I	4
CHEM	1102	General Chemistry II	4
MATH	1111	College Algebra	3
NSCI	1100	Issues in the Environment	3
PSCI	1201	American Government & Politics	3
		or	
PSCI	2202	State and Local Government	3
		or	
PSCI	2210	**Environmental Politics	3-9
		Humanities Electives	9
		Social Services Electives	6
		Courses to fulfill remaining MnTC/AA Degree* **	**0-6**
AGRI	1103	Introduction to Soil Science	3
AGRI	2204	Introduction to Precision Agriculture	3
		Electives	2
		Total Credits	**60**

STSK 1110 – Freshman Seminar (1) credit required.

Fulfill a minimum of 4 credits from two of the three areas. HLTH 1101, CSCI 1102, or any Physical Education course.
** Depends on program emphasis
*** See an Advisor

Food Science, A.S.

Location: Worthington

Food Science degrees are limited almost exclusively to land grant universities, although some state universities do have Food Science Technology majors. The Associate of Science degree listed below would prepare students to complete the first two years of a bachelor's degree in a science option of a Food Science Degree program. The degree requirements listed below are based primarily on the requirements of the University of Minnesota and Minnesota State University, Mankato. The degree requirements for schools in Wisconsin (U of W-River Falls), North Dakota (NDSU), South Dakota (SDSU) and Iowa (Iowa State University) are very similar in the areas of communication and math/science. Calculus and Organic Chemistry requirements may vary, as well as social science, humanities, and physical education. This does not meet the MnTC requirements. Students planning to attend the University of Minnesota are advised to complete the Associate of Arts degree and the MnTC.

BIOL	1110	Principles of Biology I	4
BIOL	2201	Human Anatomy	4
BIOL	2202	Human Physiology	4
BIOL	2270	Microbiology	4
CHEM	1101	General Chemistry I	4
CHEM	1102	General Chemistry II	4
CHEM	2201	Organic Chemistry I	5
CHEM	2202	Organic Chemistry II	5
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
HLTH	2240	**Basic Nutrition	3
Choose two of the following:			
MATH	1111	College Algebra	3
MATH	1113	Pre-Calculus	4
MATH	1121	*Calculus	4
PHYS	1201	Fundamentals of Physics I	4
PHYS	1202	**Fundamentals of Physics II	4
PSYC	1101	Introduction to Psychology	4
		Humanities Electives***	4
		Total Credits	**60**

* Depends on high school preparation
** Depends on transfer institution
*** Minimums only BIOL 2201 and 2202 are required at Minnesota State University, Mankato MATH 1121 and 1122 are required at the University of Minnesota
An additional semester is required to complete the AA degree and MnTC requirements. Students should take the following courses: five credits in SOC SCI; five credits in HUM; PSCI 2210, GEOG 1101 and ECON 2202 are strongly recommended; PHIL 2201 AND 2202, and HIST 1111 are strongly recommended; HLTH 1100 for three credits; two-six credits to meet Areas 8,9,10 if not met by HUM and SOC SCI requirements. This will total 13-20 additional credits.

Forestry/Natural Resources, A.S.

Location: Worthington

Four-year college graduates in the field of forestry are responsible for the management of approximately one-third of the land area of the United States. The educational program in the School of Natural Resources (University of Minnesota) prepares the student in forest resource development and forest science curricula in the art, science and business of managing forest lands for all their products (timber, water, wildlife, grazing, and recreation). Forest products, forest engineering and forest marketing graduates are directly involved in the harvesting, processing, distribution and marketing of forest products in the nation. The recreation resource management curriculum specializes in manufactured housing, marketing, pulp and paper, wood science and technology as well as the management and marketing of recreation areas.

The College of Natural Resources at the University of Minnesota has many options or areas of specialization within the broad area of forestry. All of these programs require a broad science background, and the following is only one possible two-year course of study. Upon completion of this program, the student earns the AS degree.

AGRI	1103	Introduction to Soil Science	3
BIOL	1110	Principles of Biology I	4
BIOL	1111	Principles of Biology II	4
BIOL	2230	Plant Biology	4
CHEM	1101	General Chemistry I	4
CHEM	1102	General Chemistry II	4
CHEM	2201	Organic Chemistry I	5
CMST	1101	Public Speaking	3
ECON	2201	Principles of Macroeconomics	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
MATH	1105	*Introduction to Probability& Statistics	4
MATH	1121	****Calculus I	4
PHYS	1201	Fundamentals of Physics I	4
PHYS	1202	Fundamentals of Physics II	4
		Social Science Electives***	3
		Humanities Electives***	3
		Total Credits	**60**

* Required for forest resources and forest science majors for the Itasca Biological Sciences Program
** Depends on the area of specialization
*** Minimums only.
**** Depends on high school preparation
An additional semester is required to complete the A.A. degree and MnTC requirements. Students should take six credits in HUM; two-six credits in SOC SCI (PSCI 2210 recommended); two-six credits to meet areas 7, 8 and 9 of MnTC if not complete as part of HUM/SOC SCI requirements. This will total 10-20 additional credits.

Health, A.A.

Location: Worthington

The lower division courses for these three areas of concentration are basically the same. Therefore, we have listed them under a common heading in the program of study. The student is advised to check with Minnesota West-Worthington campus counseling staff for the exact requirements for the four-year college he/she intends to attend.

Recreation/Parks Administration majors may specialize in one of several areas of concentration. The area desired should be determined while in attendance at Minnesota West in order to meet the transfer requirements. Additional credits in business courses may be in order for some receiving colleges. The curriculum requirements below meet the MnTC requirements.

BIOL	2201	Human Anatomy	4
BIOL	2202	Human Physiology	4
ENGL	1101	Composition I	3
PHED	1101	Foundations of Health, Physical Education, Exercise Science, and Sport	3
PHED	2101	History of Physical Education & Sports	2
HLTH	2220	Drugs, Society and the Individual	3
NSCI	1100	Issues in the Environment	3
		or	
PSCI	2210	Environmental Politics	3
		or	
GEOG	1101	Introduction to Physical Geography	4
ENGL	1102	Composition II	3
PHED	1110	Prevention and Care of Athletic Injuries I	3
		Biology Elective	3
		Humanities Electives	9
		Math Elective	3

		Physics Electives	3
		Social Science Electives**	9
		Total Credits	**60**

STSK 1110 – Freshman Seminar (1) credit required.

Fulfill a minimum of 4 credits from two of the three areas. HLTH 1101, CSCI 1102, or any Physical Education course.

* If either PSCI 2210 or GEOG 1101 is taken to meet Areas 5 and 10, deduct three credits from SOC SCI requirements.

Health Information Technology, A.A.S

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

Health information management technicians are the pivotal link in administrative and clinical data for the healthcare team. Health information management includes collecting, analyzing, storing, protecting and ensuring health information. These professionals can perform diagnostic and procedure coding, utilizes electronic systems for reimbursement, report data for enterprise-wide planning and research activities, and maintain a legal patient record. They work to ensure what is put in a medical record is accurate, timely, and accessible when needed, by those allowed to have access to it.
Students receive a comprehensive education in health information data structure, content & information governance; information protection; informatics, analytics, and data use; revenue cycle management; health law & compliance; and organizational management & leadership. In the last semester, students complete a 40-hour supervised practicum incorporating their education and we work together to study for the certification exam.
Employment can be found in academic institutions, government agencies, healthcare software companies, law offices, insurance companies, hospitals, long-term care facilities, clinics, hospice, health information management consulting agencies and many other places.
Prior experience of the basic elements of word processing, spreadsheets, databases, and presentation software are recommended. This program pairs well with the Medical Coding Specialist Diploma or Healthcare Administrative Assistant, Diploma or AAS.

HC	1151	Body Structure & Function	3
HC	1180	Medical Terminology in Healthcare	2
HC	1290	Health Care & Society	1
HC	2120	Disease Conditions	3
HIMC	1100	CPT/HCPCS Coding	3
HIMC	1110	Diagnosis Coding	3
HIMC	1120	Procedure Coding	3
HIMC	1130	Advanced Coding	3
HIMC	1140	Introduction to Health Records & Delivery Systems	3
HIMC	1150	Introduction to Medical Coding, Billing and Insurance	3
HIMC	2100	Computerized Health Information	3
HIMC	2110	Leadership & Management in Health Information	3
HIMC	2115	Computerized Health Information II	1
HIMC	2120	Quality Management in Health Information	3
HIMC	2130	HIT Professional Practice Experience	2
HIMC	2140	Statistics in Health Information	2
MEDA	2135	Pharmacology	3
GSCL	1105	Job Seeking Skills	1
General Education			
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
MATH	1105	Introduction to Probability and Statistics	4
		General Education from 2 MnTC areas: 5,6,7,8,9,or 10	5
		Total Credits	**60**

Health Information Technician Assistant, Certificate

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

HC	1180	Medical Terminology in Healthcare	2
HIMC	1140	Introduction to Health Records & Delivery Systems	3
HIMC	1150	Introduction to Medical Coding, Billing and Insurance	3
HIMC	1165	Health Information Law	2
HIMC	2100	Computerized Health Information	3
HIMC	2110	Leadership & Management in Health Information	3
HIMC	2115	Computerized Health Information II	1
HIMC	2120	Quality Management in Health Information	3
HIMC	2140	Statistics in Health Information	2
		Total Credits	**22**

Healthcare Administrative Assistant, A.A.S.

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

A healthcare administrative assistant performs the confidential administrative and clerical work of a medical office. The variety of duties may include bookkeeping, billing, scheduling appointments, and processing insurance claims. They may be responsible for telephone, mail, transcription and typing duties. Other duties include ordering laboratory tests and supplies, as well as receiving, interviewing and instructing patients.

ADSA	1100	College Keyboarding I	3
ADSA	1105	College Keyboarding II	3
ADSA	1111	Office Management	3
ADSA	1122	Word Processing I	2
ADSA	1123	Word Processing II	2
ADSA	1141	Customer Service for the Office Professional	2
ADSA	1145	Supervisory Management	3
ADSM	1120	Medical Office Procedures	4
ADSM	1190	Healthcare Documentation	4
HIMC	1150	Introduction to Medical Coding, Billing & Insurance	3
BUS	2242	Business Communications	3
CSCI	1102	Computer Applications I	3
GSCL	1105	Job Seeking Skills	1
HC	1151	Body Structure & Function	3
HC	1180	Medical Terminology in Healthcare	2
HC	1290	Health Care & Society	1
HC	2120	Disease Conditions	3
General Education Requirements:			
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
NSCI	1100	Issues in the Environment	3
PSYC	1150	Developmental Psychology	3

SOC	1101	Introduction to Sociology	3
		Total Credits	**60**

Healthcare Administrative Assistant, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

ADSA	1100	College Keyboarding I	3
ADSA	1122	Word Processing I	2
ADSA	1123	Word Processing II	2
ADSA	1141	Customer Service for the Office Professional	2
ADSM	1120	Medical Office Procedures	4
ADSM	1190	Healthcare Documentation	4
HIMC	1150	Introduction to Medical Coding, Billing & Insurance	3
BUS	2242	Business Communications	3
CSCI	1102	Computer Applications I	3
GSCL	1105	Job Seeking Skills	1
HC	1151	Body Structure & Function	3
HC	1180	Medical Terminology in Healthcare	2
HC	1290	Health Care & Society	1
HC	2120	Disease Conditions	3
		Total Credits	**36**

Healthcare Supervision & Leadership, Certificate

Location: Online

This Internet-based certificate will provide the opportunity for the incumbent frontline leaders and supervisors/workers from all departments of healthcare facilities to pursue advanced training in the areas of Employment, Customer Services, Personnel Supervision, Leadership, Legal Compliance, Finance, Industry Trends and Marketing as these topics relate to the healthcare environment. The Internet platform will allow healthcare personnel to pursue advanced training without leaving their facility or placing undue hardships on their current positions and/or employment status. The curriculum will provide for independent practice and virtual role-playing, and the student will be able to interact with college instructional staff via email.

SBMT	1400	Employment	2
SBMT	1405	Customer Service	2
SBMT	1410	Personnel Supervision	4
SBMT	1415	Leadership	4
SBMT	1420	Corporate Compliance	2
SBMT	1425	Finance for Healthcare	3
SBMT	1430	Healthcare Industry Trends	1
SBMT	1435	Marketing in Healthcare	1
		Total Credits	**19**

Management and Supervision in Healthcare, A.S.

Location: Online

The Management and Supervision in Healthcare A.S. program is designed to provide students with the education needed to enhance their management skills. This Internet based A.S. program will provide the opportunity for healthcare workers to gain advanced training in pursuing a management position in healthcare. Frontline leaders within healthcare facilities can also pursue advancement in their assigned areas. The Internet platform allows students to continue their education without leaving their facility and without placing undue hardships on their current positions and/or employment status. The curriculum will provide for independent practice and virtual role playing, and the student will be able to interact with college instruction staff via email and discussion groups. Students will have the option upon completing the A.S. degree to transfer to a university to complete a four-year degree depending on the university's requirement.

To earn an A.S. degree students must complete the following requirements:

1. Successful completion of 60 semester credits of which at least 15 must be earned at Minnesota West Community & Technical College.
2. A grade point average of 2.00 ("C") or better.
3. A minimum of 30 credits selected from at least 6 of the 10 goal areas in the Minnesota Transfer Curriculum. (see page 5)

Students can ensure seamless transfer of course work at a receiving institution by contacting the institution of transfer for information relating to advanced course work or test out procedure.

Required Core:

SBMT	1310	Resolving Conflict	1
SBMT	1315	Principles of Supervisory Leadership	3
SBMT	1325	Problem Solving & Decision Making	2
SBMT	1330	Interpersonal Skills for Supervisors	1
SBMT	1335	Work Teams	1
SBMT	1345	Finance & Accounting for Non-Financial Managers	3
SBMT	1400	Employment	2
SBMT	1405	Customer Service	2
SBMT	1410	Personnel Supervision	4
SBMT	1415	Leadership	4
SBMT	1420	Corporate Compliance	2
SBMT	1425	Finance for Healthcare	3
SBMT	1430	Healthcare Industry Trends	1
SBMT	1435	Marketing in Healthcare	1

Also Required:

		General Education Requirements	30
		Total Credits	**60**

Home Economics (Human Ecology), A.A.

Location: Worthington

There are many programs available in the field of home economics: costume design, dietetics, fashion merchandising, food service, home management, textiles and clothing, foods in business, community nutrition, etc. Each has different requirements. Because of this diversity, it would be misleading to list absolute requirements for all home economics programs. At Worthington, it is possible to take at least one, and more often, two years of courses required for any of the home economics programs. Be sure to check with your advisor to ensure that you are getting the appropriate courses for your major and transfer institution.

You are strongly encouraged to earn the Associate of Arts degree and meet the MnTC requirement if attending the University of Minnesota or a state university. The two-year program outlined below meets these requirements.

ART	1120	Art Appreciation	3

BIOL	1110	Principles of Biology I	4
CHEM	1101	General Chemistry I	4
CHEM	1102	General Chemistry II	4
CHEM	2201	*Organic Chemistry I	5
CHEM	2202	*Organic Chemistry II	5
CMST	1101	Public Speaking	3
ECON	2201	Principles of Macroeconomics	3
ECON	2202	Principles of Microeconomics	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
		or	
ENGL	1130	Introduction to Creative Writing	3
		or	
ENGL	2276	Composition: Technical Writing	3
MATH	1111	College Algebra	3
MATH	1113	**Pre-Calculus	4
MUSC	1105	Music Appreciation	3
		or	
THTR	1101	Introduction to Theater	3
NSCI	1100	Issues in the Environment	3
		or	
GEOG	1101	Introduction to Physical Geography	4
		or	
PSCI	2210	Environmental Politics	3
PHIL	2201	Introduction to Ethical Theory	1
PHIL	2202	General Applied Ethics	1
PHYS	1201	Fundamentals of Physics I	4
PHYS	1202	Fundamentals of Physics II	4
PSYC	1101	Introduction to Psychology	4
SOC	1101	Introduction to Sociology	
		or	
SOC	1102	Social Problems	3
		or	
SOC	2210	Marriage and the Family	3
		Humanities Electives	4
		Total Credits	**60**

STSK 1110 – Freshman Seminar (1) credit required.

Fulfill a minimum of 4 credits from two of the three areas. HLTH 1101, CSCI 1102, or any Physical Education course.

* Depends on transfer institution and area of specialization
** Depend on high school preparation

Individualized Studies A.A.S.

Location: Worthington and Online

This degree program is designed for working adults and/or students who have well-defined career goals. The program is intended to provide students with the opportunity to develop specific competencies and earn an Associate in Applied Science degree in technical studies that are not available through existing degree programs at Minnesota West Community & Technical College. This program is not intended to provide certification in any field.

The program requires submission of a written degree plan initiated by the student with assistance from an academic advisor/faculty member. The plan must also demonstrate transferability to at least one four-year accredited institution, even when it may not be the intention of the student to transfer immediately after completing this degree.

Career-area credits may be earned in technical courses, independent study projects and internships. Credits may be transferred from other institutions in accord with Minnesota State residency requirement for earning the Associate in Applied Science degree.

To earn an A.A.S. degree, students must complete the following requirements:

1. Successful completion of 60 semester credits of which at least 15 must be earned at Minnesota West Community & Technical College.
2. A grade point average or 2.0 (C) or better.
3. A minimum of 15 credits selected from at least 3 of the 10 goal areas in Minnesota Transfer Curriculum.
4. Fulfill at least a 45 credit core of technical courses unique to the program being completed of which no more than 6 credits can be from an internship.

Liberal Arts, A.A.

Location: All Campuses and Online

The Liberal Arts Program leads to a Bachelor of Arts or Bachelor of Science degree. The following outline should be used as a guide for students seeking a broad and general foundation in the arts and sciences during the first two years. This program will provide the student an opportunity to test several occupational areas before making a final decision by acquainting him/her with all the basic fields of human knowledge. The program outlined will meet the requirements for the Associate of Arts Degree and Minnesota Transfer Curriculum. The Associate of Arts degree can be used to fulfill the freshman-sophomore general education requirements at all state universities and most four-year colleges and universities in other states. The degree is the basic graduation award toward which most students will work if they intend to transfer. It emphasizes a broad general education. A year of world languages may be required at some schools in some majors. In order to obtain an Associate of Arts degree, students must complete the following uniform requirements:

FRESHMAN			
ENGL	1101	Composition I	3
BIOL		Biology Lab Course	3-4
		Humanities Electives*	9
		Free Elective	4
		General Education Electives	7
ENGL	1102	Composition II	3
		or	
ENGL	1130	Introduction to Creative Writing	3
		or	
ENGL	2276	Composition: Technical Writing	3
		Total Credits for First Year	32-33
SOPHOMORE			
CMST	1101	Public Speaking	3
CHEM/PHYS			3-5
MATH/PHIL	1200		3-5
		Social Science Electives*	9
		Free Electives**	6-10
		Total Credits for Second Year	32
		Total Credits	**60**

STSK 1110 – Freshman Seminar (1) credit required.

Fulfill a minimum of 4 credits from two of the three areas. HLTH 2220, CSCI 1102, or any Physical Education course.

* Students should choose courses that will meet humanities and social sciences requirements as well as the "Themes" of Gender Education; Diversity; Global Perspective; Ethical and Civic Responsibility; and the Environment to maximize their electives.
** Students may select courses in business, agriculture, human services, computer science, health, or physical education.

Manufacturing Production Technician, Certificate

Location: Granite Falls and Worthington

Introduces students to production technologies and information to start on a manufacturing career pathway. Students are given opportunities to enhance or develop important work-place knowledge and skills in the areas of safety, quality, manufacturing processes, and maintenance awareness.

CMAE	1514	Safety Awareness	2
CMAE	1518	Manufacturing Process & Production	2
CMAE	1522	Quality Practices	2
CMAE	1526	Maintenance Awareness	2
GSCL	1105	Job Seeking Skills	1
		Total Credits	**9**

Mass Communication Transfer Pathway, A.A.

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Mass Communication 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 Mass Communication 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.

ART	2240	Art History	3
BIOL	1100	Survey of Biological Science	3
CMST	1101	Public Speaking	3
CMST	1150	Exploring Mass Media	3
CMST	1160	Basic Media Writing	3
CMST	1170	Public Relations	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
ENGL	1105	Introduction to Literature	3
HLTH	1101	Personal Wellness	3
PHED	1140	Body Conditioning	2
PHYS	1100	Survey of Physics	3
MATH	1107	Concepts in Math	3
NSCI	1100	Issues in the Environment	3
PSCI	1201	American Government & Politics	3
PSYC	1150	Lifespan Developmental Psychology	3
MUSC	1105	Music Appreciation	3
SOC	1101	Introduction to Sociology	3
SOC	1102	Social Problems	3
STSK	1110	Freshman Seminar	1
THTR	1101	Introduction to Theater	3
		Total Credits	**60**

Mathematics Transfer Pathway, A.A.

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Mathematics Transfer Pathway, A.A. offers students a powerful option: the opportunity to complete an Associate of Arts degree with course credits that directly transfer to designated Mathematics 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.

ART	1120	Art Appreciation	3
BIOL	1100	Survey of Biological Science	3
CSCI	1102	Computer Applications I	3
CMST	1101	Public Speaking	3
ENGL	1101	Composition I	3
ENGL	1102	Composition II	3
GEOG	1100	Introduction to Geography	3
MATH	1121	**Calculus I	4
MATH	1122	Calculus II	4
MATH	2201	Calculus III	4
MATH	2206	Ordinary Differential Equations	4
MATH	2210	Linear Algebra	4
MUSC	1104	American Popular Music	3
NSCI	1100	Issues in the Environment	3
PHED	1126	Beginning Yoga	1
PHYS	1201	Fundamentals of Physics I	4
PSCI	2210	Environmental Politics	3
PSYC	1101	Introduction to Psychology	4
STSK	1110	Freshman Seminar	1
		Total Credits	**60**

Mechatronics, A.A.S.

Location: Granite Falls and Worthington

Mechatronics integrates mechanical, electronics, fluid power, and computer control systems to create automated manufacturing production systems. The Mechatronics program prepares students for entry-level technician positions in the areas of robotics, industrial manufacturing and maintenance, fluid power, instrumentation, electronics, and process control automation.

MECH	1102	Mechanical Power Transmission	2
MECH	1103	Basic Hydraulics	3
MECH	1105	Hydraulics Lab	3
MECH	1110	Fluid Power Calculations	2
MECH	1115	Computer Aided Design	2
MECH	1120	Pneumatic Theory	3
MECH	1131	Pneumatic Lab	1

MECH	2100	Advanced Systems Calculations	3
MECH	2110	Circuit Design & Control Theory	3
MECH	2136	Programmable Logic Controllers	3
MECH	2141	Proportional & Servo Control Theory	2
MECH	1125	Electrical Controls I	2
MECH	1135	Electrical Controls II	3
MECH	2120	Automated Systems	5
MECH	2125	Motion Control	3
MECH	2165	Instrumentation & Control Lab	1
RNEW	1160	Instrumentation & Control	3
		* General Education	16
		Total Credits	**60**

* MATH 1107 or MATH 1111 are required general education courses.

Mechatronics, Diploma

Location: Granite Falls and Worthington

MECH	1102	Mechanical Power Transmission	2
MECH	1103	Basic Hydraulics	3
MECH	1105	Hydraulics Lab	3
MECH	1110	Fluid Power Calculations	2
MECH	1115	Computer Aided Design	2
MECH	1120	Pneumatic Theory	3
MECH	1131	Pneumatic Lab	1
MECH	2100	Advanced Systems Calculations	3
MECH	2110	Circuit Design & Control Theory	3
MECH	2136	Programmable Logic Controllers	3
MECH	2141	Proportional & Servo Control Theory	2
MECH	1125	Electrical Controls I	2
MECH	1135	Electrical Controls II	3
MECH	2120	Automated Systems	5
MECH	2125	Motion Control	3
MECH	2165	Instrumentation & Control Lab	1
RNEW	1160	Instrumentation & Control	3
		Total Credits	**44**

Mechatronics Fluid Power Specialist, Certificate

Location: Granite Falls and Worthington

Designed for students who desire national certification as a Fluid Power Specialist. The skills learned will prepare students for taking the International Fluid Power Society hydraulic and pneumatic specialist exams. Passing both will certify them as a Fluid Power Specialist. Students with this certification are recognized in the industry as possessing the knowledge and skills necessary to perform as technicians in the fluid power industry.

MECH	2100	Advanced Systems Calculations	3
MECH	2105	Advanced Fluid Power Systems I	4
MECH	2126	Systems Analysis	4
MECH	2130	Advanced Fluid Power Systems II	4
MECH	2141	Proportional & Servo Control Theory	2
		Total Credits	**17**

Medical Coding Specialist, Diploma

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington and Online

Medical Coding Specialists work closely with other health care professionals in coding diagnosis and procedures on patient medical records, analysing medical records for completeness of documentation, working with insurance companies, and reimbursement procedures.

Prior knowledge of the basic elements of word processing, spreadsheets, databases and document integration, along with the basic concepts of graphics, telecommunications, and the Internet are recommended.

Recommend taking this degree with Healthcare Administrative Assistant, Diploma or A.A.S.

ADSM	1120	Medical Office Procedures	4
HC	1151	Body Structure & Function	3
HC	1180	Medical Terminology in Healthcare	2
HC	2120	Disease Conditions	3
HIMC	1100	CPT/HCPCS Coding	3
HIMC	1110	Diagnosis Coding	3
HIMC	1120	Procedure Coding	3
HIMC	1130	Advanced Coding	3
HIMC	1140	Introduction to Health Records& Delivery Systems	3
HIMC	1150	Introduction to Medical Coding, Billing & Insurance	3
HIMC	2125	Medical Coding Board Review	1
MEDA	2135	Pharmacology	3
		Total Credits	**34**

Medical Assistant, A.A.S.

Location: Luverne

Medical Assistants help physicians examine and treat patients, as well as perform routine tasks needed to keep an office running efficiently. In small practices, medical assistants handle both clerical and clinical duties and report directly to the office manager or physician. Those employed in large practices tend to specialize in a particular area under the supervision of department administrators. Clerical duties may include patient scheduling, receptionist duties, medical record management, office correspondence, medical insurance procedures, and management of office accounts, fees, and collections. Clinical duties may include interviewing patients, patient education, taking vital signs, preparing patients for examination and assisting the physician during exams, performing routine laboratory testing and electrocardiography, sterilizing instruments, and administering medications. Students enrolling in the medical assistant program must possess a high school diploma or GED. Prior to participating in the clinical practicum, students must submit health information and evidence of valid CPR/First Aid certification. Successful completion of all required program courses and general education courses with a grade of “C” or better is necessary to graduate.

Students in the medical assistant program will undergo a background study as required by Minnesota law. Graduates of the Minnesota West Medical Assistant program are eligible to earn certification by taking the American Association of Medical Assistant’s Certification Exam.

ADSM	1120	Medical Office Procedures	4
ADSM	1200	Introduction to Medical Coding, Billing and Insurance	3
BIOL	2245	Medical Terminology	2
		or	
HC	1180	Medical Terminology in Healthcare	2
BIOL	1110	Principles of Biology I	4

		or	
BIOL	1115	Human Biology	3
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
ENGL	1101	Composition I	3
HC	1100	Nutrition	1
HC	1151	Body Structure and Function	3
HC	1290	Health Care & Society	1
HC	2120	Disease Conditions	3
MDLT	1100	Introduction to Laboratory Sciences	3
MEDA	1105	Clinical Procedures I	3
MEDA	1135	Laboratory Skills	3
MEDA	2110	Clinical Procedures II	4
MEDA	2135	Pharmacology	3
MEDA	2139	Professional Integration	1
MEDA	2140	Medical Assistant Practicum	6
PSYC	1150	Lifespan Developmental Psychology	3
SOC	1101	Introduction to Sociology	3
		Humanities Elective	3
		General Education Electives	3-4
STSK	0091	Basic Math Skills (if needed)	
		Total Credits	**60**

Medical Assistant, Diploma

Location: Luverne

ADSM	1120	Medical Office Procedures	4
HIMC	1150	Introduction to Medical Coding, Billing & Insurance	3
BIOL	2245	Medical Terminology	2
		or	
HC	1180	Medical Terminology in Healthcare	2
HC	1100	Nutrition	1
HC	1290	Healthcare & Society	1
ENGL	1101	Composition I	3
HC	1151	Body Structure & Function	3
HC	2120	Disease Conditions	3
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
MDLT	1100	Introduction to Laboratory Sciences	3
MEDA	1105	Clinical Procedures I	3
MEDA	1135	Laboratory Skills	3
MEDA	2110	Clinical Procedures II	4
MEDA	2135	Pharmacology	3
MEDA	2139	Professional Integration	1
MEDA	2140	Medical Assistant Practicum	6
STSK	0091	Basic Math Skills (if needed)	(1)
		Total Credits	**44**

Medical Laboratory Technician, A.A.S.

Location: Granite Falls and Luverne

The Medical Laboratory Technician (MLT) program at Minnesota West is designed to prepare students for employment in the medical, clinical, research and public health laboratories. A MLT collects and/or receives patient specimens and performs general laboratory tests to aid physicians in the diagnosis and treatment of disease. The MLT program combines academic general education with a concentration in the basic sciences, didactic studies in medical laboratory science and clinical training (externship) in a hospital laboratory. It is recommended that students enrolling in the Medical Laboratory Technician program have a science and math background. Prior to participating in the clinical externship, student must submit health vaccination and undergo a background study as required by Minnesota law. Successful completion of all required course with a grade of C (75%) or better is necessary to graduate. Student must test into MATH 0098 level.

Accredited by: The National Accrediting Agency for Clinical Laboratory Science (NAACLS); 8410 West Bryn Mawr Avenue – Suite 670; Chicago, IL 60631: (773) 714-8880

BIOL	1115	Human Biology	3
CHEM	1150	Survey of Chemistry	4
ENGL	1101	Composition I	3
Humanity or Social/Behavioral/Social Science Electives			5
HC	1180	Medical Terminology in Healthcare	2
HC	1290	Health Care & Society	1
MDLT	1100	Introduction to Laboratory Sciences	3
MDLT	1105	Medical Microbiology I	3
MDLT	1110	Laboratory Math Calculations	2
MDLT	1115	Biological Fluids	3
MDLT	1120	Immunology	3
MDLT	1125	Clinical Chemistry I	3
MDLT	1130	Hematology I	3
MDLT	2101	Medical Microbiology II	3
MDLT	2106	Immunohematology	3
MDLT	2110	Clinical Chemistry II	2
MDLT	2120	Hematology II	3
MDLT	2310	Clinical: Urinalysis/BIO Fluids	2
MDLT	2320	Clinical: Hematology & Hemostasis	4
MDLT	2330	Clinical: Medical Microbiology	2
MDLT	2340	Clinical: Clinical Chemistry & Immunology	3
MDLT	2350	Clinical: Immunohematology	4
MDLT	2360	Capstone	1
MDLT	2370	Clinicals: SIM Medical Microbiology	2
		Total Credits	**67**

Nursing – Practical Nursing, Diploma

Location: Pipestone, Worthington and Distance

Practical Nursing is designed to create upward mobility nursing education opportunities. After successful completion of the Practical Nursing Program, students will receive the Practical Nursing Diploma and be eligible to take the NCLEX-PN examination. Students may enter the workforce at this point or continue to take the Associate Degree in Nursing program (after graduation students are eligible to take the RN licensing examination).

Prerequisites: Courses must be taken prior to starting the nursing program: Nursing Assistant (NA) course (from a state approved NA course and location), BIOL 2201 Human Anatomy, EMS 1112 or an equivalent American Heart Association (AHA) Basic Life Support (BLS) CPR course with an in person skills test-out certification. Students must remain CPR certified through the completion of the program.

The following course sequence is required for completion of this program. Only students who have been accepted into the Nursing program are allowed to take the NURS courses. The non-nursing course, PSYC 1150 Lifespan Developmental Psychology, may be taken either before or during the fall term. All other prerequisite courses must be taken before the beginning of the program. Recommended courses to prepare for the Practical Nursing Program

are: MATH 1111 College Algebra, BIOL 2245 Medical Terminology, and CSCI 1102 Computer Applications I.

Prerequisites

BIOL	2201	Human Anatomy	4
		Total Prerequisites	4
PSYC	1150	Lifespan Developmental Psychology	3
NURS	1100	Principles & Practices of Nursing	3
NURS	1120	Nursing of the Adult I	3
NURS	1130	Pharmacology I	3
NURS	1140	Nursing Skills Lab	2
NURS	1180	*Clinical Applications I	2
NURS	1220	Nursing of the Adult II	3
NURS	1230	Pharmacology II	3
NURS	1250	Family Nursing	4
NURS	1260	Mental Health Nursing	1
NURS	1280	*Clinical Application II	6
NURS	1295	PN Integration	2
		Total Credits	**39**

Notes: Practical nursing students are required to participate in the ATI Testing Program.
Required end of program assessment will include:

- Completion of an ATI Integrated predictor exam prior to graduation
- Completion of an ATI Review course prior to authorization to test for NCLEX-PN exam.

*Clinical experiences are a part of the program and are done in healthcare facilities located in southwest Minnesota. On-campus and online learning students need to be prepared to travel to assigned clinical sites as part of the program.

Nursing A.S. – Registered Nurse

Location: Worthington and Online

Nursing A.S. is designed for Licensed Practical Nurses who wish to obtain the Associate of Science Nursing Degree. It is an entrance point for mobility students who have graduated from another nursing program or have completed Minnesota West's Practical Nursing Program. After successful completion of the Nursing A.S. Program, students are awarded the Associate of Science (AS) Nursing Degree and are then eligible to take the NCLEX-RN examination. At this point, students are also eligible to articulate to a BSN/BAN program in the Minnesota State system.

Admission requirements include: a minimum decision score of 80 on the NLN exam (required for licensed LPN's who have been practicing as an LPN for more than one year or graduated from another nursing program), a grade of C or higher in all required coursework, a minimum GPA of 2.5, and completion of the courses described below.
**Note: Associate of Science program admission criteria will be changing for 2015-2016 AS program applicants.

NURS 2000, Transition into Professional Nursing Education (1 credit), is required prior to entrance into Fall Semester nursing classes for students who have graduated from another nursing program or are returning to Minnesota West's Nursing Program.

LPN Licensure is required prior to taking any NURS courses in the A.S. Nursing Program.

The following course sequence is required for completion of this program. Only students who have been accepted into the Nursing program are allowed to take the nursing courses. The non-NURS courses shown may be taken either before or during the program.

Prerequisites

Practical Nursing Diploma			
or			
Completion of practical nursing program			
(Advanced Standing)			**6**
BIOL	2201	Human Anatomy	4
BIOL	2202	Human Physiology	4
ENGL	1101	Composition I	3
PSYC	1150	Lifespan Developmental Psychology	3
		Prerequisite Credits	**14**

Co-requisite courses: The following General Education courses may be taken prior to beginning or during AS program. Must be completed prior to graduation.

		Communication Elective	
		(CMST 1101,1103, 1120, 1130 recommended)	3
		Sociology Elective	3
PHIL	2101	Ethics Theory and Practices (medical focus)	3
		Electives (Composition II and College Math recommended)	7
		General Education Credits	**16**
NURS	2125	Patient Centered Care I	3
NURS	2130	Pharmacology: A Pathophysiologic Approach	2
NURS	2135	Geriatric and Psychiatric Nursing	2
NURS	2145	Principles of Professional Nursing I	2
NURS	2150	Skills Lab	2
NURS	2190	Acute Care Clinical I	2
NURS	2225	Patient Centered Care II	3
NURS	2245	Health Promotion and the Role of the Professional Nurse	2
NURS	2255	Pharmacology: A Pathophysiologic Approach II	2
NURS	2260	Family-Centered Care	3
NURS	2275	Nursing Preceptorship	1
NURS	2290	Acute Care Clinical II	2
NURS	2390	Clinical in Alternate Settings	2
		Total Credits	**64**

Notes:
Recommended electives include: ENGL 1102, humanities, social sciences (HIST 1101, HIST 1102, geography, political science or economics), chemistry, BIOL 1115, PSYC 1101, college math or statistics.
Humanities: choose from the areas of art, literature, theatre, HIST 1111, HIST 1112, music, or any course with HUM designator.

AS nursing students are required to participate in the ATI Testing Program.
Required end of program assessment will include:

- Completion of a ATI Integrated predictor exam prior to graduation
- Completion of a ATI Review course prior to authorization to test for NCLEX-RN exam.

**Clinical experiences are a part of the program and are completed in healthcare facilities located in southwest Minnesota. On-campus and distance learning students

need to be prepared to travel to assigned clinical sites as a program requirement.

Occupational Therapy Assistant, A.A.S.

Location: Worthington

*The Minnesota West Community & Technical College Occupational Therapy Assistant Program was granted Candidacy Status by ACOTE in September 2022. During 2023-2024, the program must have a preaccreditation review, complete an on-site evaluation, and be granted Accreditation Status before its graduates will be eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT).

Occupational Therapy is a healthcare profession that works with people of all ages, diagnoses, and living situations to help achieve increased independence in their valued occupations. We consider the tasks of daily living, such as making breakfast, taking a shower, caring for children, playing, and even sitting in school, as important occupations that help individuals succeed in life. When someone is unable to do one or several of their valued occupations, an occupational therapy assistant may have the opportunity to work with the individual on an established plan of care to achieve the goals that the individual has helped set. It is a growing, challenging, and exciting career path for anyone who enjoys using their creative skills to help individuals become, regain, or work toward independence.

An occupational therapy assistant is supervised by an occupational therapist.

BIOL	2201	Human Anatomy	4
BIOL	2202	Human Physiology	4
ENGL	1101	Composition I	3
HC	1180	Medical Terminology in Healthcare	2
		OR	
BIOL	2245	Medical Terminology	2
OTAC	1100	Introduction to OTA	2
OTAC	1105	Clinical Conditions and Abilities	2
OTAC	1110	Foundational Skills for the OTA	4
OTAC	1115	Problem-Based Learning for the OTA I	2
OTAC	1200	Movement of Occupations	3
OTAC	1210	Pediatric Applications	4
OTAC	1215	Problem-Based Learning for the OTA II	2
OTAC	1220	Rural & Community-Based OT	4
OTAC	1230	Level I Fieldwork A	1
OTAC	1240	Documentation for the OTA	1
OTAC	2100	Mental Health Across the Lifespan	3
OTAC	2110	Adult Applications	4
OTAC	2115	Problem-Based Learning for the OTA III	2
OTAC	2120	Geriatric Applications	4
OTAC	2130	Level I Fieldwork B	1
OTAC	2140	Professional Seminar	2
OTAC	2230	Level II Fieldwork A	6
OTAC	2240	Level II Fieldwork B	6
PSYC	1150	Lifespan Developmental Psychology	3
PSYC	2221	Psychology of Mental Illness	3
		Total Credits	**72**

Office Management, A.A.S.

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Office Management, AAS program provides students with the knowledge and skills needed to pursue a career as an Office Manager. An Office Manager maintains and coordinates the day-to-day office environment to ensure it operates effectively and efficiently. Office Managers supervise other administrative support professionals and are responsible for developing and enforcing office policies and procedures as well as overseeing communications, budgets, inventory, and the accounting and records management systems. Other duties include problem-solving, decision-making, providing customer service, and the ability to adapt and lead in an ever-changing office environment.

ACCT	1120	Spreadsheet Concepts and Applications	2
ACCT	1122	Database Concepts and Applications	2
ADSA	1100	College Keyboarding I	3
ADSA	1105	College Keyboarding II	3
ADSA	1111	Office Management	3
ADSA	1122	Word Processing I	2
ADSA	1123	Word Processing II	2
ADSA	1126	Advanced Office Applications	2
ADSA	1130	Office Accounting Concepts	3
ADSA	1131	Office Accounting Concepts II	2
ADSA	1141	Customer Service for Office Professionals	2
ADSA	1145	Supervisory Management	3
BUS	2230	Principles of Marketing	3
BUS	2241	Business Law	3
BUS	2242	Business Communications	3
CMST	1101	Public Speaking	3
		Or	
CMST	1103	Interpersonal Communication	3
CSCI	1102	Computer Applications I	3
ECON	2201	Principles of Macroeconomics **OR**	3
ECON	2202	Principles of Microeconomics	3
ENGL	1101	Composition I	3
MATH	1105	Introduction to Probability & Statistics	4
PHIL	2101	Ethical Theory & Practices	3
SOC	1101	Introduction to Sociology	3
		Total Credits	**60**

Peace Officer/Public Safety Transfer Pathway, A.S.

Location: Worthington

The Peace Officer/Public Safety Transfer Pathway [AS] offers students a powerful option: the opportunity to complete an Associate of Science degree with course credits that directly transfer to designated Law Enforcement/Criminal Justice 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.

A separate application and admissions process is required for admission into the Peace Officer Program.

CJS	1101	Introduction to Criminal Justice	3
CJS	1200	Juvenile Justice	3
CJS	1220	Peace Officer and Community	3
CJS	1230	Victimology	3
CJS	1240	Criminal Justice Leadership - Ethics	3
CJS	2400	Minnesota Statutes	4
CJS	2410	Criminal Investigations	3

CJS	2420	Criminal Procedures	3
CJS	2350	Skills Certificate	12

General Education Requirements:

CMST	1101	Public Speaking	3
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
ENGL	2276	Composition: Technical Writing	3
MATH	1107	Concepts in Math	3
PHIL	2101	Ethics Theory and Practice	3
PSCI	2202	State and Local Government	3
PSYC	1101	Introduction to Psychology	4
PSYC	2221	Psychology of Mental Illness	3
SOC	1102	Social Problems	3
		Total Credits	**68**
EMS	1110	Emergency Medical Responder	2
		Recommended spring semester of year two	
CJS	2297	Criminal Justice Internship	1-3
		Recommended spring semester of year two	
		Emergency Vehicle Operations Course	0
		Recommended summer semester	

Peace Officer, A.A.S.

Location: Worthington

The Minnesota West Community and Technical College Peace Officer A.A.S. program is a Minnesota Board of Peace Officers Standards and Training (POST) approved program and will qualify students for licensing as a Peace Officer in the state of Minnesota upon completion of the A.A.S. degree.

The curriculum has been designed to meet the learning objectives for Professional Peace Officer Education (PPOE) and Minnesota State Transfer Pathways for Criminal Justice – Peace Officer.

The program offers small class sizes, individualized attention and is focused on modern 21st-century education and hands-on training that will prepare students for the demands of today's Peace Officer careers. The program instructors are experienced Peace Officer individuals that have taught in the field and are recognized experts in the areas that they teach.

Students have the option to pursue certification and begin their career upon completing the Associate of Applied Science (A.A.S.) degree or continuing their education under the transfer pathways.

A separate application and admissions process is required for admission into the Peace Officer Program.

CMST	1101	Public Speaking	3
		or	
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
PHIL	2101	Ethics Theory and Practice	3
PSYC	1101	Introduction to Psychology	4
SOC	1102	Social Problems	3
EMS	1110	Emergency Medical Responder	2
CJS	1101	Introduction to Criminal Justice	3
CJS	1120	Physical Fitness for Law Enforcement I	2
CJS	1125	Physical Fitness for Law Enforcement II	1
CJS	1200	Juvenile Justice	3
CJS	1210	Communication Relations	4
CJS	1220	Criminal Justice and Community	3
CJS	1230	Victimology	3
CJS	1240	Criminal Justice Leadership – Ethics	3
CJS	2224	Criminal Justice Report Writing	2
CJS	2233	Firearms – Tactical Management	4
CJS	2250	Accident Investigation-Traffic Operations	4
CJS	2300	Patrol Operations	4
CJS	2310	Use of Force	4
CJS	2400	Minnesota Statutes	4
CJS	2410	Criminal Investigations	3
CJS	2420	Criminal Procedures	3
CJS	2500	Traffic Stops	2
CJS	2510	Crime Scene Processing	2
		Emergency Vehicle Operations Course (EVOC)	0
		Total Credits	**72**

Peace Officer Skills, Certificate

Location: Worthington

Provide students that have completed POST Boards approved Professional Peace Officers Education (PPOE) Academic Program with the skills requirements of the Professional Peace Officers Education Catagory Three: Performance of Peace Officer Duties and Tasks and Category Four: Tools, Techniques and Tactics for licensing as a police officer. This program meets the transfer pathways requirements.

Prerequisite(s): Completion of the POST Boards approved Professional Peace Officers Education (PPOE) Academic Program or the approval of a POST approved PPOE Coordinator.

LAWE	2350	Skills Certificate	12
		Total Credits	**12**

Phlebotomy, Certificate

Location: Luverne

The curriculum prepares the student for employment as a Phlebotomist/Laboratory Assistant in a hospital, laboratory, or clinic. The training is designed to prepare students to collect specimens, perform venipunctures and dermal punctures, prepare and transport specimens, and perform laboratory computer operations. Full-time students can complete the academic portions of the program in two semesters. The clinical portion of the program is by arrangement, and completion may vary by student. Successful completion of all required program courses and general education courses with a grade of C (75%) or better is necessary to graduate. Enrollment notes: A physical exam; hepatitis immunization; entrance assessment; and a copy of high school transcript, diploma or GED are all needed for enrollment. Students in the Phlebotomy Technician program will undergo a background study as required by Minnesota law.

BIOL	2245	Medical Terminology	2
		or	
HC	1180	Medical Terminology in Healthcare	2
HC	1151	Body Structure and Function	3
HC	1290	Healthcare and Society	1
MDLT	1100	Introduction to Laboratory Sciences	3
MDLT	2200	Phlebotomy Externship	4
MEDA	1135	Laboratory Skills	3
		Total Credits	**16**

Pharmacy Technology , Diploma

Location: Canby, Granite Falls, Jackson, Pipestone, Worthington, and Online

The Pharmacy Technician Diploma Program prepares graduates for entry level careers working under the direction of a trained and licensed Pharmacist in retail, clinic or hospital settings. A pharmacy technician assists the pharmacist in all aspects of prescription processing, customer services, and administrative duties in accordance with the standard written procedures and guidelines under the supervision of a professional pharmacist. Pharmacy technicians will perform different duties depending on the practice setting in which they are employed. In general, a pharmacy technician may perform the following duties: receive and verify prescriptions, and prepare medications for customers/patients through mixing, counting and labeling prescriptions. Pharmacy technicians also consult with doctors, nurses, and other healthcare professionals regarding patient information, allergies, and lab results to determine optimal patient care. This program prepares graduates for the Pharmacy Technician Certification Board exam which is necessary for certification.

HC	1180	Medical Terminology in Healthcare	2
		Or	
BIOL	2245	Medical Terminology	2
HC	1151	Body Structure & Function	3
HC	1290	Health Care and Society	1
PHRM	1100	Pharmacy Principles and Practices I	5
PHRM	1115	Pharmacology for Technicians I	4
PHRM	2120	Disease Conditions	3
PHRM	1105	Pharmacy Principles and Practices II	5
PHRM	1110	Pharmaceutical Calculations	3
PHRM	1120	Pharmacology for Technicians II	3
PHRM	1130	Hospital Externship	3
PHRM	1135	Retail Externship	3
		Total Credits	**35**

Pharmacy Technician , Certificate

Location: Online

The Pharmacy Technician program prepares pharmacy technicians to assist licensed pharmacists dispense prescription medications in pharmacies. The Pharmacy Technician training program will prepare students to work in a pharmacy and be eligible to take a certification examination at the age of 18. An externship provides the student with hands-on experience as well as providing the necessary skills to pass the certification exam to be successful in the industry.

HC	1180	Medical Terminology in Healthcare	2
		Or	
BIOL	2245	Medical Terminology	2
PHRM	1101	Pharmacy Principles and Practices	5
PHRM	1130	Hospital Externship	3
PHRM	1135	Retail Externship	3
		Total Credits	**10**

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Plumbing Technology, Diploma

Location: Pipestone

The Plumbing Technology degree provides graduates with a strong foundation and real- life experience in the construction and maintenance of plumbing systems. Plumbers are in high demand and are an integral part of public health and safety. Students will learn installation of fixtures, pipe threading, and plumbing tools/equipment. The students will explore different drainage systems and water supply. There will be a strong emphasis on the MN Plumbing Code. Students will become familiar with different types of copper pipe, fittings, tubing and PEX water distribution piping. The application of math skills will be applied as well as learning to read blue prints. Graduates will be ready to enter the field as apprentices.

PLMB	1101	Introduction to Plumbing	3
PLMB	1102	Plumbing Installation and Fixtures I	4
PLMB	1112	Code I	2
PLMB	1122	Print Reading I	2
PLMB	1132	Plumbing Repair and Service	3
PLMB	1142	Materials and Fittings	2
PLMB	1152	Plumbing Essentials	4
PLMB	1162	Code II	2
PLMB	1180	Water Piping and Sizing	4
PLMB	1185	Drainage, Waste, and Venting	4
PLMB	1190	Plumbing Technology Internship	2
		Total Credits	**32**

Heating Technology, Certificate

Location: Pipestone

PLHT	1115	Print Reading	1
PLHT	1120	Heating & Air Conditioning Electrical Controls and Circuits	3
PLHT	1125	Heating & Air Conditioning Fundamentals	3
PLHT	1145	Heating & Air Conditioning Installation and Services	5
PLHT	1150	Sheet Metal Technology	2
		Total Credits	**9**

Plumbing Technology, Certificate

Location: Pipestone

The Plumbing Technology certificate provides graduates with foundation skills and experiences in the construction and maintenance of plumbing systems. Plumbing technicians are in high demand and are important part of public health and safety. Students will learn installation of fixtures, pipe threading, the tools and equipment used in industry, and fabrication and testing.

As part of the program, students will be exposed to blueprints, plumbing math skills, the State of Minnesota Plumbing Code, and be ready to enter the field as a plumber's helper. Students will be exposed to the different types of fixtures, copper pipe, fittings and tubing and PEX water and heating distribution piping

PLMB	1101	Introduction to Plumbing	3
PLMB	1142	Materials and Fittings	2
PLMB	1152	Plumbing Essentials	4
		Total Credits	**9**

Powerline Technology, A.A.S.

Location: Granite Falls and Jackson

The Powerline Technician major is designed to train students to become apprentices in powerline construction and maintenance. Students learn basic skills and applications in transmission and distribution. Persons trained in this field work for power companies installing and maintaining overhead and underground powerlines. They install equipment such as overvoltage and overcurrent

protective devices, transformers, capacitors, and regulators. Powerline technicians are employed by investor owned power companies, consumer owned power companies, municipalities, and by electrical contractors.

AUTO	1194	Commercial Driver License Learner Permit Preparation	1
ELCO	1100	Electrical Circuits Fundamentals	3
*ELEC	1235	Applied Electrical Calculations	2
ELPL	1100	Pole Climbing & Equip. Operation	3
ELPL	1102	Pole Climbing & Equip. Operations II	4
ELPL	1106	Electric Distribution of Powerlines I	4
ELPL	1116	Electric Distribution of Powerlines II	4
ELPL	1121	Electric Distribution of Powerlines III	4
ELUT	1101	Electrical and Rigging Safety	3
ELUT	1105	Blueprint, Schematics and Transit	3
ELUT	1110	Transformer Banking I	3
ELUT	1115	Generation Transmission & Distribution	3
ELUT	2110	Transformer Banking II	2
ELUT	2116	Reclosures & Protective Equipment	2
ELUT	2121	Protective Relays	2
ELUT	2100	Electrical Metering	3
ELUT	2126	Regulators and Capacitors	2
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
		*General Education Electives	15
		Total Credits	**64**

The 15 General Education requirements must be selected from 3 of the 10 Goal Areas of the Minnesota Transfer Curriculum.

* Any MATH Mn Transfer course from the following list may be substituted for ELEC 1235:
MATH 1105, MATH 1107, MATH 1111, MATH 1113, MATH 1118, or MATH 1121.

General Education Electives from: English, Biology, Chemistry, Math, Physics, Natural Science, Art, Foreign Language, Literature, Music, Philosophy, Theatre, Western Civilization, Economics, Geography, History, Political Science, Psychology, and Sociology.

Powerline, Diploma

Location: Granite Falls and Jackson

AUTO	1194	Commercial Driver License Learner Permit Preparation	1
ELCO	1100	Electrical Circuits Fundamentals	3
*ELEC	1235	Applied Electrical Calculations	2
ELPL	1100	Pole Climbing & Equip. Operation	3
ELPL	1102	Pole Climbing & Equip. Operation II	4
ELPL	1106	Electrical Distribution of Powerlines I	4
ELPL	1116	Electrical Distribution of Powerlines II	4
ELPL	1121	Electrical Distribution of Powerlines III	4
ELUT	1101	Electrical and Rigging Safety	3
ELUT	1105	Blueprint, Schematics and Transit	3
ELUT	1110	Transformer Banking I	3
ELUT	1115	Generation, Transmission and Distribution	3
EMS	1112	AHA CPR Healthcare Provider, AED First Aid Certification	1
		Total Credits	**38**

* Any MATH Mn Transfer course from the following list may be substituted for ELEC 1235:
MATH 1105, MATH 1107, MATH 1111, MATH 1113, MATH 1118, or MATH 1121.

Radiologic Technology , A.A.S.

Location: Luverne

The Radiologic Technology program prepares students to gain knowledge and skills necessary to perform various radiologic procedures through didactic, laboratory, and clinical experiences and carries out these functions under the supervision of a Registered Radiologic Technologist. Instruction in x-ray procedures; equipment operation; patient care; and CT imaging included.

Prerequisites do not have to be completed prior to applying to the Radiologic Technology program, however, must be completed prior to starting the program.

Prerequisites

RADT	1105	Radiographic Basics	1
BIOL	2245	Medical Terminology	2
BIOL	2201	Human Anatomy	4
		Total Prerequisites	**7**

BIOL	2202	Human Physiology	4
PSYC	1150	Lifespan Developmental Psychology	3
MATH	1111	College Algebra	3
ENGL	1101	Composition	3
HC	1290	Health Care and Society	1
RADT	1100	Introduction Radiography & Patient Care	4
RADT	1110	Radiological Procedures I	7
RADT	1130	Radiological Exposures I	3
RADT	1150	Clinical Radiography I	12
RADT	1120	Radiological Procedures II	4
RADT	1160	Clinical Radiography II	12
RADT	1140	Radiological Exposures II	4
RADT	2210	Radiological Procedures III	2
RADT	2250	Clinical Radiography III	3
RADT	2220	Radiological Equipment	4
RADT	2240	Principles of Radiobiology	3
RADT	2230	Radiological Pathology	2
RADT	2280	Board Review	3
		Total Credits	**84**

Supervisory Leadership in Management, Certificate

Location: Online

The Supervisory Leadership in Management certificate program will help the incumbent student prepare for career growth opportunities. This certificate program will enhance career success through sound leadership skills and management practices. The Internet platform will allow students to pursue their education without leaving their facility or placing undue hardships on their current positions and/or employment status. The curriculum will provide for independent practice and virtual role-playing, and the student will be able to interact with college instruction staff via e-mail and discussion groups.

SBMT	1310	Resolving Conflict	1
SBMT	1315	Principles of Supervisory Leadership	3
SBMT	1320	Creativity and Innovation	1
SBMT	1325	Problem Solving & Decision Making	2
SBMT	1330	Interpersonal skills for Supervisors	1
SBMT	1335	Work Teams	1

SBMT	1340	Time Management	1
SBMT	1345	Finance & Accounting for Non-Financial Managers	3

Additional 10 Credits chosen from Management and Supervision in Healthcare:

SBMT	1400	Employment	2
SBMT	1405	Customer Service	2
SBMT	1410	Personnel Supervision	4
SBMT	1415	Leadership	4
SBMT	1420	Corporate Compliance	2
SBMT	1425	Finance for Healthcare	3
SBMT	1430	Healthcare Industry Trends	1
SBMT	1435	Marketing in Healthcare	1
		Total Credits	**23**

Solar Photovoltaic Technician, Certificate

Location: Canby

The Solar Photovoltaic program combines lecture and hands on training to provide the skills necessary to install solar PV systems. Graduates will develop an understanding of where PV systems started, where they are now and where they will be in the future. Under minimal supervision graduates must be able to define the solar resource and complete a site assessment. They must also develop a comfort level with the capabilities, limitations, and basic construction of all major PV system pieces. Graduates must also be able to size systems to client's expectations, inspect, commission and maintain the systems.

ELCO	1100	Electrical Circuit Fundamentals AND	3
ELCO	1105	Electrical Circuit Fundamentals Lab	3
		Or	
ELCO	1110	AC/DC I AND	3
ELCO	1120	AC/DC II	3
ELEC	1205	National Electric Code I	2
ELEC	1200	Residential Wiring I	5
ELEC	1230	Safety Principles and OSHA	1
ELEC	1235	Applied Electrical Calculations	2
SOLR	1020	Introduction to Solar Assessment Lab	3
SOLR	1030	Solar Energy Construction Projects	2
SOLR	2020	Advanced Photovoltaic Systems	3
SOLR	2025	Photovoltaic Systems Lab	2
		Total Credits	**26**

Surgical Technology , A.A.S.

Location: Granite Falls and Luverne

The Surgical Technology program prepares students to perform general technical support tasks in the operating room before, during and after surgery. Includes instruction in pre-operation patient and preparing surgical team, handling surgical instruments at the table side, maintaining supply inventory before and during operations, sterilization and cleaning of equipment, maintaining clean and sealed environments, following operating room safety procedures, record-keeping, and working with the surgical team. Students in the Surgical Technology program will undergo a background study as required by Minnesota law.

Students are required to be certified in CPR/BLS to participate in clinical rotations.

BIOL	1115	Human Biology	3
CMST	1103	Interpersonal Communication	3
ENGL	1101	Composition I	3
HC	1151	Body Structure & Function	3
HC	1180	Medical Terminology in Healthcare	2
HC	1290	Health Care and Society	1
HC	2120	Disease Conditions	3
PSYC	1150	Lifespan Developmental Psychology	3
SURG	1110	Surgical Microbiology	2
SURG	1120	Surgical Pharmacology	2
SURG	1130	Operating Room Theory	5
SURG	1150	Operating Room Procedures I	6
SURG	1155	Operating Room Practices	1
SURG	1151	Operating Room Procedures II	4
SURG	1160	Clinical I	2
SURG	1170	Clinical II	12
SURG	1181	Board Review	2
		General Education Electives	3
		Total Credits	**60**

Welding, Diploma

Location: Jackson and Granite Falls

Program description: In this two semester program students gain technical knowledge and hands-on welding skills for Shielded Metal Arc, Gas Metal Arc and Gas Tungsten Arc, Pipe Welding, Plasma and Oxy-Fuel cutting processes. Students will learn to recognize welding symbols, read and interpret welding blueprints, and practice shop safety. Welds will be made to industry standards using the American Welding Society D1.1 Structural Code. Upon completion of the program, students are prepared for a high demand welding career in advanced manufacturing, production, maintenance and repair, and construction.

WELD	1190	Welding Principles	3
WELD	1200	Blueprint Reading for Welders	3
WELD	1210	Oxy-Fuel/Plasma Arc Cutting	2
WELD	1220	Shielded Metal Arc Welding I	3
WELD	1230	Gas Metal Arc Welding I	3
WELD	1240	Gas Tungsten Arc Welding I	2
WELD	1260	Metallurgy and Materials	2
WELD	1270	Testing/Codes and Inspection	2
WELD	1280	Intermediate Shielded Metal Arc Welding	2
WELD	1300	Intermediate Gas Metal Arc Welding	3
WELD	1340	Welding Qualification Lab	3
WELD	1350	Pipe Welding Processes	4
		Total Credits	**32**

Welding, Certificate

Location: Granite Falls and Jackson

The Welding Certificate is a one semester program providing technical knowledge and hands-on welding skills for Shield Metal Arc, Gas Metal Arc, Plasma and Oxy-Fuel cutting processes. Students will learn to recognize welding symbols, read and interpret welding blueprints, and practice weld shop safety protocols. Welds will be made to industry standards using the American Welding Society D1.1

Structural Code. Upon completion students are prepared for an entry

level welding position in advanced manufacturing, production, maintenance and repair, and construction.

WELD	1190	Welding Principles	3
WELD	1200	Blue Print Reading for Welders	3
WELD	1210	Oxy-Fuel/Plasma Arc Cutting	2
WELD	1220	Shielded Metal Arc Welding I	3
WELD	1230	Gas Metal Arc Welding I	3
WELD	1240	Gas Tungsten Arc Welding I	2
WELD	1260	Metallurgy & Materials	2
		Total Credits	**16**

Welding GMAW, Certificate

Location: Canby, Granite Falls, Jackson, Pipestone, and Worthington

The Welding GMAW Certificate is a 9 credit certificate providing technical knowledge and hands-on welding skills for the Gas Metal Arc Welding process. Students will learn to recognize welding symbols, read and interpret welding blueprints, and practice weld shop safety protocols. Welds will be made to industry standards and American Welding
Society D1.1 Structural Codes. Upon completion students are prepared for an entry level welding position in advanced manufacturing, production, maintenance and repair, and construction.

WELD	110	Welding Principles	3
WELD	1200	Blue Print Reading for Welders	3
WELD	1230	Gas Metal Arc Welding I	3
		Total Credits	**9**

Management Programs

More information on Minnesota Management programs is available at http://www.mnwest.edu/training-management

Computerizing Small Business Management, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington

Computerizing Small Business is a program designed to assist the small business owner in maximizing the effectiveness of office computerization and accounting applications. Good management requires a sound knowledge of economic principles because they are the framework for small business operation and organization. Management must understand various alternatives that can be used in decision making. This program strives to develop an entrepreneur's knowledge of economic principles and enable entrepreneurs to meet their business and family goals. A structured program is used to analyze current systems, evaluate business applications for the computer, identify the advantages of computerized systems, and examine software & hardware currently available. This program may use a combination of individualized instruction, tailored to the specific business needs, and classroom delivery. The mission of the Computerizing Small Business program is to encourage more businesses to take advantage of the cost savings and productivity improvement opportunities available through efficient office automation. This is accomplished through instruction that helps the business owner better understand and thus simplify the computerization process and use of application software.

Prerequisites:
To be eligible for enrollment in Computerized Small Business Management courses, the student must be a small business operator or must secure the consent of the instructor.

CSBM	1100	Disk Operating Systems	1
CSCM	1110	General Ledger	3
CSBM	1120	Bank Reconciliation	2
CSBM	1130	Accounts Receivable	3
CSBM	1140	Accounts Payable	3
CSBM	1150	Payroll	3
CSBM	1160	Government Payroll Reporting	2
		Electives	15
		Total Credits	**32**

Farm Business Management, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

The primary emphasis of the Farm Business Management Program is to assist farm families in meeting their business and personal goals through quality farm records and sound business decisions. This program is primarily taught through individualized instruction at the FBM office, via technology, or occasionally at the farm business location. But classroom and group instruction are also very important. Students are enrolled in the program on a continuous, part-time basis. Normal credit load is 10 credits per year, for the equivalent of 1/3 of a full-time college student. The instructor visits the student on a regular basis and understands the strengths and weaknesses of each student's business. Developing a set of sound farm records is the basis for the program. Primarily, computerized accounting is used to handle the complex records, which must be kept in an efficient farm business. At the close of the calendar year, these records are summarized by the instructor and a computerized business analysis is prepared for each student to show how well his/her business did financially during the year. Each student also receives an area Farm Business Analysis Summary, which allows them to compare their information with averages of other Farm Business Management students (farmers) in their local area and around the state. The Farm Business Management Program offering consists of four certificate programs. The first three certificate programs are 30 credits in length. These three programs include Essentials of Farm Business Management, Applications in Farm Business Management, and Advanced Farm Business Management. The fourth certificate option is the Marketing Certificate, consisting of 25 credits.

Prerequisites: To be eligible for enrollment in Farm Business Management courses, the student must be a farm business operator or manager or must secure the consent of the instructor.

General Education and/or General Studies			10
FBMT	1112	Foundation for FBM	4
FBMT	1121	Preparation for Farm Business Analysis	4
FBMT	1122	Implementing the System Management Plan	4
FBMT	1131	Managing & Modifying Farm System Data	4
FBMT	1132	Interpreting & Using Farm System Data	4
FBMT	1211	Introduction to FBM	4
FBMT	1223	Using System Analysis in Total Farm Planning	2
FBMT	2141	Interpreting & Evaluating Financial Data	4
FBMT	2142	Interpreting Trends in Business Planning	4
FBMT	2151	Strategies in Farm System Data Management	4
FBMT	2152	Integrating System Information for Financial Planning	4
FBMT	2161	Examination of the Context of Farm System Management	4
FBMT	2162	Refining Farm System Mgt.	4
		Total Credits	**60**

Farm Business Management – Current Issues, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

FBMT	2210	Special Topics - Marketing	1
FBMA	2220	Directed Studies – Current Issues in Farm Business Management	1-5
FBMA	2211	Current Issues in Farm Business Mgt.	1-5
FBMA	2221	Directed Studies – Current Issues In Farm Business Management	1-5
FBMA	2212	Current Issues in Farm Business Mgt.	1-5
FBMA	2222	Directed Studies – Current Issues In Farm Business Management	1-5
		Farm Business Mgt. Electives	12
		Total Credits	**30**

Agricultural Commodities Marketing, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

FBMT	1170	Intro to Farm Commodity Marketing	3
FBMT	1173	Directed Study – Introduction to Farm Commodity Marketing	2
FBMT	1180	Applying Commodity Marketing Fundamentals	3
FBMT	1183	Directed Study – Applying Commodity Marketing	2
FBMT	1190	Evaluating Farm Commodity Marketing Tools	3
FBMT	1193	Directed Study – Evaluating Farm Commodity Marketing Tools	2
FBMT	2170	Monitoring Farm Commodity Marketing Plans	3
FBMT	2173	Directed Study – Monitoring Farm Commodity Marketing Plans	2
FBMT	2180	Strategies in Farm Commodity Marketing	3
FBMT	2183	Directed Studies – Strategies in Farm Commodity Marketing	2
		Total Credits	**25**

Advanced Farm Business Management, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

This certificate program is designed to provide instruction for students who have completed the other programs in the Farm Business Management curriculum. Students in this program will learn about key factors in business management for the long term: Risk Management, Strategic Planning, and Business Plan development. Prior instruction in Farm Business Management lays the groundwork for continued enhancement of financial management skills for the students in this program. Students will focus on using financial trends in their business to fine-tune the focus and strategize opportunities for the long-term profitability of their business.

FBMA	2930	Fundamentals of Financial Management as it relates to Risk Management	3
FBMA	2931	Applied Financial Management as it Relates to Risk Management	3
FBMA	2932	Fundamentals of Financial Management/Strategic Planning Emphasis	3
FBMA	2933	Applied Financial Management/ Strategic Planning Emphasis	3
FBMA	2934	Fundamentals of Financial Management/Business Plan Emphasis	3
FBMA	2935	Applied Financial Management Business Plan Emphasis	3
FBMA	2130	Directed Study-Decision Making	2
FBMA	2131	Directed Study-Communication	2
FBMA	2132	Directed Studies in Modern Agricultural Technology	2
FBMA	2133	Directed Studies in Farm Business Family Transition	2
FBMA	2134	Directed Study-Personnel Management	2
FBMA	2135	Directed Study-Enterprise Alternatives	2
		Total Credits	**30**

Applications in Farm Business Management, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

This certificate program is designed to provide instruction that will expand on the foundation for financial management which was learned in the Essentials of Farm Business Management certificate. Students in this program will use accounting skills to record and evaluate data related to the profitability and longevity of their business. Education is primarily delivered in an individualized setting at an FBM Office, via technology or occasionally at the farm business location. Students will use data management, planning strategies, and a business analysis to successfully manage their farm business.

FBMT	2141	Interpreting and Evaluating Financial Data	4
FBMT	2151	Strategies in Farm System Data Management	4
FBMT	2161	Examination of the Context of Farm System Management	4
FBMT	2142	Interpreting Trends in Business Planning	4
FBMT	2152	Integrating System Information for Financial Planning	4
FBMT	2162	Refining Farm System Management	4
		Suggested Farm Business Management Electives	6
		Total Credits	30

Essentials of Farm Business Management, Certificate

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

This certificate program is designed to provide instruction that will help to build a foundation for successful financial management of the farm business. Students in this program will use basic accounting practices and goal setting to provide benchmarking information and a direction for the business. Education is primarily delivered in an individualized setting at a FBM office, via technology, or occasionally at the farm business location. Students use business records to provide information for completing a business analysis and initiate a financial trend analysis for sound decision-making.

FBMT	1211	Introduction to Farm Business Management	4
FBMT	1112	Foundations for Farm Business Management	4
FBMT	1121	Preparation for Farm Business Analysis	4
FBMT	1122	Implementing the System Management Plan	4
FBMT	1131	Managing and Modifying Farm System Data	4

FBMT	1132	Interpreting and Using Farm System Data	4
		Suggested Farm Business Management Electives	6
		Total Credits	**30**

Lamb and Wool Management, Diploma

Location: Pipestone

The Lamb and Wool Management Program is concerned with developing the sheep enterprise operator's ability to organize and manage resources to meet family and business goals. Good management requires a sound knowledge of economic and scientific principles because they are the framework for a profitable sheep enterprise. Good management provides a perspective that considers the relationship of all parts to the whole farm business. Good sheep management requires knowledge of sheep production practices and animal science, as well as new technology developments in the field. The Lamb and Wool Management Program is concerned with the development of a person's knowledge of economic, management, and scientific principles and using them in a profit oriented decision making process that enables them to meet their goals.

Prerequisites: To be eligible for enrollment in Lamb and Wool Management courses, a student must be a sheep producer or must secure the consent of the instructor.

Program Delivery: Curriculum is delivered through a combination of classroom, lab, on-farm instruction and individual instruction. This option is available only for students within 125 miles of Pipestone, Minnesota or through permission of the instructor.

LWMP	1001	Introduction to Sheep Management	1
LWMP	1002	Sheep Management Concepts	2
LWMP	1003	Pasture & Grazing Management	1
LWMP	1004	Predator Control Methods	2
LWMP	1101	Sheep Genetic Concepts	2
LWMP	1102	Genetic Selection Methods	1
LWMP	1201	Sheep Behavior & Handling Methods	1
LWMP	1202	Equipment and Facilities	2
LWMP	1301	Sheep Diseases	3
LWMP	1302	Preventative Health Programs	1
LWMP	1304	Basic Lamb Care Skills	1
LWMP	1305	Basic Sheep Care Skills	1
LWMP	1401	Lamb Marketing	2
LWMP	1402	Sheep Quality Assurance	1
LWMP	1501	Nutrition Requirements	2
LWMP	1502	Ewe Ration Formulation	1
LWMP	1601	Sheep Reproduction	2
LWMP	1602	Reproductive Management	1
LWMP	1701	Wool Characteristics	2
LWMP	1702	Wool Harvesting, Marketing, and Processing	1
		Total Credits	**30**

Small Business Management, Diploma

Locations: Canby, Granite Falls, Jackson, Pipestone, Worthington, and southwestern Minnesota

The Minnesota Small Business Management education program is concerned with the organization of an entrepreneur's resources in such a way as to assist the family in meeting their family and business goals. Often these goals involve generating new profit. Good management requires a sound knowledge of economic principles because they are the framework for small business operation and organization. Good management ties all perspective, showing the relationship of all parts to one another, and to the whole small business. Management must understand various alternatives that can be used in decision making. Small business management instruction is concerned with the development of an entrepreneur's knowledge of economic principles and with the decision-making process.

Prerequisites: To be eligible for enrollment in Small Business Management courses, the student must be a small business operator or must secure the consent of the instructor.

SBMT	1110	Organization Planning	2
SBMT	1120	Business Systems	3
SBMT	1210	Financial Systems	3
SBMT	1220	Financial Management	3
SBMT	1230	Financial Analysis	3
SBMT	1312	Marketing Systems	3
SBMT	1321	Marketing Management	2
		Electives	20
		Total Credits	**39**

Customized Training and Continuing Education

CUSTOMIZED TRAINING AND CONTINUING EDUCATION

provides workplace training solutions for individuals, businesses, non-profit and government organizations to enhance workplace skills, improve performance, and maintain competitiveness in a global economy.

We offer:

- Comprehensive training and curriculum development
- Continuing Education & Customized Training Programs
- Credit and Non-credit courses
- Convenient locations & flexible scheduling
- Cost effective training delivery
- Mobile training simulators and equipment
- Online and on-site training delivery

Types of training/education provided:

- Training for new employees
- Retraining for existing employees
- Technical assistance
- Research and development for new training programs
- Continuing education for individuals and professional licensure

Customized Training and Continuing Education Program Areas include:

- Health Care
- Management and Professional Development
- Manufacturing and Trades
- Public Safety
- Transportation
- Workplace Safety

HEALTHCARE:

The Community Health Worker (CHW) program will prepare you to obtain employment in a variety of organizations. Community Health Workers perform a broad range of health related functions and play an important role in bridging the gap between cultures and health care systems. A CHW will work with health care organizations to increase cultural competence, improve access to health care for racial and ethnic minorities, improve the quality of care for the chronically ill, promote healthy communities, and educate families about access to and use of health care coverage.
This program is run as a cohort training and may not follow the semester schedules. For registration information please connect with roxanne.hayenga@mnwest.edu *507-372-3468*

MANAGEMENT AND PROFESSIONAL DEVELOPMENT:

Developing the capacity to enhance the performance of others through personal and professional growth is essential to effective leadership for managers, management trainees, and skilled employees. Enhancing computer skills enables an organization to maximize productivity through the use of computers and technology.

Customized Training and Continuing Education provides the training foundation for:

- Leadership and Workforce Development
- Supervisory and Human Resource Management
- EEOC Compliance Certified Harassment Training
- Customer Service
- Organizational Development
- Performance Management
- Computer & Technology Training

TRANSPORTATION:

The transportation industry is one of the largest industries in the State impacting all industry sectors and individuals while employing a diverse workforce. Safety and proper training is critical for everyone involved. Customized Training Services provides driver training, safety, and certifications including:

- Commercial Driver License Training & Test Preparation
- Pilot Car Certification
- Commercial Vehicle Recertification

MANUFACTURING AND TRADES:

Today's manufacturing industry is a fast-paced environment requiring efficient operations and a highly skilled workforce. Customized Training and Continuing Education offers specialized skills training by industry professionals designed to meet the needs of the manufacturer's operation and workforce needs. Manufacturing process and skills training topics include:

- Automation Skills
- Process Improvement/Lean Manufacturing
- Industrial Maintenance
- Mechanical Power Transmission
- Six Sigma Certification
- Steam & Hot Water Boiler Training
- Welding Credit & Non-Credit

PUBLIC SAFETY:

Public safety is vital to safe and healthy communities. Customized Training and Continuing Education specializes in training fire and rescue professionals, law enforcement officers and personnel, and emergency response professionals within the service area.

- **Fire Safety and Rescue** training provides National Fire Protection Association 1001 Fire Fighter I & II and Haz-Mat Operations and Fire Fighter continuing education courses to the fire departments and fire safety professionals in the region. Training courses and curriculum meet the NFPA and Minnesota Fire Service Certification Board standards. Minnesota West instructors certified through the Minnesota Fire Service Certification Board meeting the qualifications of the NFPA 1001. Training delivery is highly mobile supported by classroom and hands-on learning using mobile training simulators including Confined Space, Live Burn, and Ventilation and is designed to meet specific needs of each department.

- **Law Enforcement and Personal Safety:** Minnesota West is a POST Board accredited educational institution for Law Enforcement continuing education. We take training seriously because we know training can make the difference between life and death. Law Enforcement training programs are flexible and designed to assist peace officers and other law enforcement personnel with their work. The courses and curriculum are developed in collaboration with the Minnesota POST learning objectives, are Minnesota POST Board approved and delivered by POST Board approved instructors. Training may be customized for Law Enforcement Agencies, Security Organizations, and Business and Industry.

WORKPLACE SAFETY:

Maintaining a safe workplace is important for every business. Workplace safety education and training programs are an integral part of assuring safe practices in the workplace by minimizing the possibility of injury occurrence and limiting the exposure to liabilities. Training is provided by OSHA authorized, National Safety Council Advanced Safety Certified, and American Heart Association certified instructors. Courses meet the standards of the American Heart Association and Occupational Safety & Health Administration. Real-world safety and compliance training areas include:

- Construction Safety
- OSHA Safety for Business & General Industry
- Industrial Safety
- Hazardous Materials Emergency Response
- Electrical Safety
- First Aid/CPR/AED/Blood Borne Pathogens
- Employee Right to Know
- Industrial Truck (Fork Lift)
- Cosmetology

MINNESOTA WEST MARSHALL CENTER/MERIT CENTER:

Minnesota Emergency Response & Industrial Training Center is located at 1001 Erie Road, Marshall, MN. Minnesota West partners with the City of Marshall to provide highly specialized skills training and continuing education at the MERIT Center.

The MERIT Center provides a site and state of the art equipment for training emergency responders including fire fighters, city and county law enforcement personnel, emergency medical service personnel, regional emergency managers, and business and industry personnel. The MERIT Center is fully staffed with Minnesota West personnel for convenient programming delivery. For more information about the training possibilities offered through Minnesota West Customized Training and Continuing Education, call the Marshall Center at 507-537-7530 or 1-800-658-2330. **Check out our web site at:**

www.mnwest.edu/training

COURSE DESCRIPTIONS

ACCOUNTANT (ACCT)

ACCT 1110 **3**
Payroll Accounting
Payroll Accounting involves the application of various state and federal laws pertaining to the computation of payment of salaries and wages.

ACCT 1112 **1**
Accounting Information Systems
Accounting Information Systems applies concepts that identify, analyze, and record transactions through the completion of a business simulation project. Topics covered include the accounting cycle, accounting for a merchandising business, accounting system design, special journals, subsidiary ledgers, and work ethics.

ACCT 1115 **2**
Computerized Accounting Applications I
Computerized Accounting Applications I introduces the use of computers and related software used in the accounting function of the business environment. Prerequisite: BUS 2201.

ACCT 1120 **2**
Spreadsheet Concepts and Applications
Spreadsheet Concepts and Applications implements a computerized spreadsheet system for business applications.

ACCT 1122 **2**
Database Concepts and Applications
Database Concepts and Applications utilizes a database system for business applications.

ACCT 2100 **4**
Intermediate Accounting I
Intermediate Accounting I introduces accounting theory and concepts with an analysis of the influence on financial accounting by various boards, associations, and governmental agencies.

ACCT 2101 **2**
Intermediate Accounting II
Intermediate Accounting II explains and examines accounting theory and concepts. Prerequisite: ACCT 2100.

ACCT 2110 **4**
Income Tax I
Income Tax I explains and interprets the Internal Revenue Code as applied to individual and business returns. Computerized software will be used to prepare actual income tax returns.

ACCT 2115 **4**
Cost Accounting I
Cost Accounting I studies cost accounting as a management tool for planning, organizing, and controlling costs associated with the manufacturing process, whether using job costing or process accounting. Prerequisite: BUS 2202.

ACCT 2120 **3**
Fund/Nonprofit Accounting
Fund/Nonprofit Accounting applies generally accepted accounting principles for state and local governmental units. Prerequisite: BUS 2202.

ACCT 2125 **2**
Computerized Accounting Applications II
Computerized Accounting Applications II applies the use of computers and related software used in the accounting function of a business. Prerequisite: BUS 2202.

ACCT 2130 **2**
Intermediate Accounting III
Intermediate Accounting III applies accounting theory and concepts with an analysis of the influence on financial accounting by various boards, associations, and governmental agencies. Prerequisite: ACCT 2101.

ACCT 2135 **2**
Internship
Internship provides practical experience with a business utilizing skills/knowledge learned in accounting programs. Prerequisite: BUS 2202.

ADMINISTRATIVE ASSISTANT (ADSA)

ADSA 1100 **3**
College Keyboarding I
College Keyboarding I covers basic skill development and the use of word processing software to produce various personal and business correspondence including letters, envelopes and labels, memos, reports, tables, and employment documents. Focus will also be placed on the development of touch control keyboarding technique, accuracy, speed, and proofreading skills.

ADSA 1105 **3**
College Keyboarding II
College Keyboarding II emphasizes the use of advanced word processing skills and formatting techniques to produce business correspondence including multi-page letters, memos, and reports, complex tables, forms, and office-related publications. Focus will continue to be placed on the improvement of keyboarding accuracy, speed, and proofreading skills. Prerequisite: ADSA 1100.

ADSA 1111 **3**
Office Management
Office Management covers general office principles and procedures with practical application. Topics covered include the roles and responsibilities of the administrative professional, professionalism, self-management and organizational strategies, ethics, teams, customer service, leadership, communication skills, common tasks and procedures performed in the office environment, and job seeking skills.

ADSA 1122 **2**
Word Processing I
Word Processing I is designed to introduce students to the concepts, terminology, features, and applications of word processing software. Topics covered include the preparation, management, formatting, editing, enhancing, and customization of documents.

ADSA 1123 **2**
Word Processing II
Word Processing II is designed to build on the concepts and applications learned in Word Processing I and to introduce more advanced word processing software features. Topics covered include proofing and navigation of documents, charts, references, specialized tables, building blocks, shared documents, macros, forms, outlines, master documents, and sub documents. Prerequisite: ADSA 1122.

ADSA 1126 **2**
Advanced Office Applications
Advanced Office Applications is a capstone course designed to integrate and reinforce the skills and knowledge learned in previous business courses in the Administrative Assistant program. Computer applications will be utilized in projects that simulate those used in an office environment. Projects will emphasize quality and meeting deadlines. Prerequisite ADSA1100 or ADSA1122. Prerequisite or Co-requisite ACCT1120 and ACCT1122.

ADSA 1130 **3**
Office Accounting Concepts
Office Accounting Concepts provides a basic knowledge of accounting concepts and procedures. The accounting cycle for a service business

will be covered including analyzing, journalizing, and posting business transactions, and preparing a ten-column worksheet and financial statements. Accounting for cash and payroll will also be covered in the course.

ADSA 1131 **2**
Office Accounting Concepts II
Office Accounting Concepts II provides the opportunity to apply and reinforce basic knowledge of accounting concepts and procedures through the use of simulation and computerized accounting software. Prerequisite: ADSA 1130 or equivalent.

ADSA 1136 **2**
Desktop Publishing
Desktop Publishing is designed to introduce the student to the concepts, terminology, techniques, and applications of desktop publishing. The student will integrate text and graphics to produce professional-quality publications.

ADSA 1141 **2**
Customer Service for the Office Professional
Customer Service for the Office Professional covers the basic skills necessary to work effectively with customers. Basic customer service communication skills including telephone, technology, and writing are covered. Also included are customer retention, motivation, leadership and problem solving strategies.

ADSA 1145 **3**
Supervisory Management
Supervisory Management enhances participants ability to learn the skills required to effectively direct the work of others in the business world by working through people to develop and empower them. Important supervisory management concepts are stressed as well as how to apply the principles of management in the real world.

ADSA 1190 **2**
Presentation Graphics
Presentation Graphics covers the concepts of developing electronic slide shows using a computer application program. The keys to effective presentations are covered along with various printing techniques. This course also covers more advanced presentation techniques including animation, sound, scanning, and graphics.

MEDICAL ADMINISTRATIVE ASSISTANT (ADSM)

ADSM 1120 **4**
Medical Office Procedures
Medical Office Procedures introduces organization, technical, personal, and leadership skills critical to the integration of medical office tasks in today's fast paced healthcare environment. Topics explored include medicolegal regulations, telephone etiquette and techniques, scheduling, medical records management, word processing, accounting, banking and finance management principles. Content also includes computer security. Students will utilize a fully online integrated electronic health record system.

ADSM 1190 **4**
Healthcare Documentation
Healthcare Documentation introduces medical formatting and transcription skills for medical documentation. Dictation is transcribed from various specialties. The basics of voice technology will be explored. Emphasis will be in developing and improving editing and proof reading skills.

ADSM 1200 **3**
Introduction to Medical Coding, Billing and Insurance
Introduction to Medical Coding, Billing and Insurance provides a basic introduction to ICD-10-CM, ICD-10-PCS and CPT/HCPCS coding and coding compliance, a study of the various health insurance plans, reimbursement methodologies, and compliance strategies. Students will adhere to current regulations and established guidelines in code assignment. Students who master the material will gain sufficient understanding of coding for entry-level medical insurance specialist positions.

ADSM 1210 **3**
CPT/HCPCS Coding
CPT/HCPCS Coding is designed to prepare students to assign CPT (Current Procedural Terminology) coding system to code various body systems, disease processes and treatments in the outpatient settings, using exercises and medical records to develop skill and accuracy. Students will use the principles of coding to ensure proficiency in coding. Students will understand and use the current regulations and established guidelines in code assignment. Billing and insurance procedures as well as chargemaster description and maintenance will be addressed. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

ADSM 1220 **3**
Diagnosis Coding
Diagnosis Coding will introduce the student to the ICD-10-CM classification system with an emphasis on the correct process of utilizing the alphabetic index and tabular list for code assignment. The focus will be on rules, conventions, instructions of ICD-10-CM as well as the chapter specific (pregnancy, injury, etc) including criteria for assignment of principal and additional diagnoses in various patient settings will be addressed. The impact of proper code assignment, MS-DRGs and reimbursement will also be covered. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

ADSM 1230 **3**
Procedure Coding
Procedure Coding will demonstrate the application of principles, guidelines, and conventions of procedure coding by using the current International Classification of Diseases (ICD), Procedure Classification System (PCS) coding manual. Coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes to procedures. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

ADSM 1240 **3**
Introduction to Health Records
Introduction to Health Records provides a study that charts a path for success in the allied health field. The course focuses on how electronic health records (EHRs) and a philosophy of patient-centric care are currently impacting health information professionals in their everyday careers as well as the patients they serve. In a health information system that is becoming increasingly integrated and cross-disciplinary, health information students need to be equipped with the problem-solving skills to make important connections and to face the challenges and opportunities they will see in their careers.

ADSM 1250 **3**
Advanced Coding
Advanced Coding demonstrates the application, analysis and evaluation of coding principles, guidelines, and conventions from CPT, HCPCS, and ICD coding manuals. Students will use the principles of ICD-10-CM, ICD-10-PCS, and CPT/HCPCS coding to ensure proficiency in coding using actual patient charts and advanced concepts of coding. Students will apply current regulations and established guidelines in coding assignment. Students will use AHIMA Find-A-Code Encoder to apply codes and adhere to guidelines and conventions. Prerequisites: ADSM 1210, ADSM 1220, and ADSM 1230.

ADSM 2200 **1**
Board Review
Board review is the online capstone study and review course to sit for the certification exam for the certified coding specialist (CCS) certified coding specialist-physician based (CCS-P) and the certified professional coder (CPC) national examinations by AHIMA and AAPC. This course offers you a study plan, review of all major examination topics, mock pretest and post-test, guidance to good computer test-taking skills. Prerequisites: ADSM 1210, ADSM 1220, and ADSM 1230.

AGRICULTURE (AGRI)

AGRI 1101 **3**
Introduction to Animal Science
Introduction to Animal Science provides students an introduction to animal science with an emphasis on the fundamental concepts of physiology, nutrition, animal breeding and management as applied to beef cattle, dairy cattle, poultry, sheep and swine production.

AGRI 1102 **3**
Principles of Agronomy
Principles of Agronomy explores the principles and practices of plant and related sciences as applied to increasing productivity and improvement of field crops. Emphasis is on crop selection and improvement through the breeding of crop varieties, seeds and seedlings, crop growth and development, crop production hazards, and the harvest and storage of field crops.

AGRI 1103 **3**
Introduction to Soil Science
Introduction to Soil Science introduces students to the origin, formation, and classification of soils. This includes the physical, chemical, and biological properties of soils, soils as a medium for plant growth, elements, water, air, organic matter, and plant and animal life in the soil.

AGRI 1110 **3**
Introduction to Horticulture
Introduction to Horticulture emphasizes the growth process in production of fruits, vegetables, flowers, lawns, trees, and shrubs. Studies include planning, preparation and care of home grounds. Fundamental concepts in plant identification, growth, culture, landscape and design are also studied.

AGRI 1115 **4**
Introduction to Shrimp Production
Introduction to Shrimp Production provides students with an introduction to shrimp production with an emphasis on fundamental concepts of physiology, nutrition, life cycle, and management in various production methods along with history, processing, and marketing of shrimp.

AGRI 1122 **4**
Swine Technician
Swine Technician introduces students to the swine industry and the importance of pork quality assurance for employees when entering the workforce. Emphasis of the course will be food safety, animal well-being, public health, and the work environment. When students complete this course, they will be Pork Quality Assurance certified.

AGRI 1125 **2**
Custom Application
Custom Application is designed for the student pursuing a career in crop production or agronomy services area. The student will receive hands-on instruction in the safe operation and calibration of custom sprayers and spreaders. The student will be prepared for and issued the Minnesota State Custom Application exams for categories (Core-A, Field Crop Pest- C, Seed Treatment-H) - leading to licensure in those areas.

AGRI 1151 **4**
Farm Records & Business Analysis
Farm Records and Business Analysis emphasizes the maintenance and analysis of farm records. Special attention is given to the use of the Minnesota Farm Account Book and the analysis procedure. Topics include calculation of earnings, efficiency factors, total business and enterprise analysis. Computer record and financial statement software programs will be used.

AGRI 1152 **3**
Agricultural Marketing and Prices
Agricultural Marketing and Prices explores the economics of agricultural marketing, organization of markets and marketing enterprises, marketing policy, and price trends of agricultural commodities.

AGRI 2201 **3**
Principles of Animal Nutrition
Principles of Animal Nutrition covers the classification and function of nutrients, digestion, and utilization of feeds. This includes nutrient requirements for livestock and poultry, nutrient composition, and feeding standards.

AGRI 2202 **3**
Weed Science
Weed Science relates the principles of weed science to weed management situations encountered in the field. Methods of weed control, modes of action of herbicides, weed identification, and herbicide interactions will be emphasized.

AGRI 2203 **3**
Soil Fertility and Fertilizer
Soil Fertility and Fertilizer explores the chemical elements in the soil and plants. Soil testing, tissue testing, fertilizer nutrients, fertilizer products, and fertility recommendations are studied.

AGRI 2204 **3**
Introduction to Precision Agriculture
Introduction to Precision Agriculture is intended to serve as an introduction to GPS (Global Positioning Systems) and GIS (Geographical Information Systems) with an emphasis on agricultural use. Topics include precision farming, positioning systems, yield monitoring, and variable rate technology.

AGRI 2205 **3**
Introduction to Precision Management Software
Introduction to Precision Management Software is intended to serve as an introduction to several precision management software packages that are used to manage farming decisions and implement site specific crop management.

AGRI 2212 **3**
Corn and Soybean Production
Corn and Soybean Production explores practices used in corn and soybean production, variety and hybrid selection, seed bed preparation and planting, fertilizer programs, water management, weed control, harvesting, storage and marketing.

AGRI 2214 **3**
Machinery Principles and Management
Machinery Principles and Management will cover the utilization of farm equipment from the purchasing of equipment and managing the costs to the operation and maintenance of agricultural equipment.

AGRI 2216 **3**
Introduction to Meat Science
Introduction to Meat Science evaluates the principles of conformation, quality, and finish of animal carcasses. A comprehensive look at the meat industry. Studies include muscle structure, composition of meat animals, product identification, microbiology of meat, nutrient values, pricing and marketing.

AGRI 2220 **3**
Building Construction Technology
Building Construction Technology introduces instructional and laboratory exercises in light frame Building Construction Technology introduces instructional and laboratory exercises in light frame building construction. The course provides competence in skill areas including site layout, foundations, plumbing, insulating, sheathing, roofing and electrical wiring. The units are arranged in a logical sequence as to the order in which the various phases of construction are performed. Special emphasis is placed on safety and the use of modern tools, materials, and prefabricated components.

AGRI 2222 **3**
Current Technical Competencies
Current Technical Competencies introduces instructional and laboratory experiences to learners that are preparing for a career as an Agricultural Education teacher. The course will include laboratory experiences building basic mechanical and technological competence in manufacturing and workshop mechanics. Students will be expected to gain competence in a wide variety of skills including, but not limited to welding, small engines, fluid power, hydraulics and pneumatics.

Teaching and learning strategies will demonstrate research based best practices that are proven effective in teaching manufacturing and mechanical technologies to high school students.

AGRI 2235 **1-3**
Special Topics in Agriculture
Covers a wide range of issues of current interest. Topics will be chosen to meet the needs of students. The class may be retaken for credit if the topic varies.

AGRI 2251 **4**
Principles of Farm and Ranch Management
Principles of Farm and Ranch Management emphasizes utilization of land, labor, capital and management in the organization and operation of a farm. Includes the organization of a farm and the decision-making processes involved in establishing a farm business. Analyzing, budgeting, and using principles of economics are considered in the decision making process.

AGRI 2252 **2**
Economic Principles of Agricultural Marketing
Designed for students to explore the macro marketing system in agriculture. Studies include market models, marketing functions, market utility, International markets, price discovery, supply & demand, and futures markets.

AGRI 2297 **2-8**
Agriculture Production Management Internship
Agriculture Production Management Internship places students on a farm operation to gain further experience in agricultural production management under the supervision of the agriculture department staff.

AGRI 2299 **2-8**
Agri-Business Internship
Agri-Business Internship places students in an agriculture related business to gain practical experience in agricultural sales and service and agricultural business management.

ART (ART)

ART 1101 **3**
Beginning Drawing Meets Goal Area: 06
Beginning Drawing introduces a wide range of basic drawing approaches and materials. Students will experiment with traditional and contemporary styles to complete tasks in perspective and composition

ART 1103 **1**
Display and Exhibition Meets Goal Area: 06
Display and Exhibition exposes the student to the organization, management and design and hanging of gallery displays. Students will be responsible for the pre-organization and arrangement of exhibitions. The course will cover both theoretical and practical experience with gallery management.

ART 1114 **3**
Foundations of Art 2D Meets Goal Area: 06
Foundations of Art 2D introduces a visual vocabulary and tools essential for two-dimensional representation. Students will investigate the basic principles of composition, realism, and abstract expressionism through a variety of techniques and media

ART 1115 **3**
Beginning Painting Meets Goal Area: 06
Beginning Painting introduces traditional and contemporary painting techniques and materials. Students will explore formal and abstract elements to compose their own visual style.

ART 1118 **3**
Foundations of Art 3D Meets Goal Area: 06
Foundations of Art 3D introduces a visual vocabulary and tools essential for three-dimensional representation. Students will utilize a variety of media and studio production methods to develop creative thinking and investigate the basic principles of art.

ART 1120 **3**
Art Appreciation Meets Goal Area: 06
Art Appreciation investigates the creative process as it exists for the artist, the art historian, and the viewer. Students will be exposed to the history of art, the technical aspects of art, and to the creative mental process which takes place in both the making and viewing of art.

ART 1124 **3**
Introduction to Ceramics Meets Goal Area: 06
Introduction to Ceramics will teach students to create clay objects using the potter's wheel and hand building techniques. Students also learn to operate a kiln and apply glaze finishes.

ART 1224 **3**
Investigations in Raku Meets Goal Area: 06
Investigations in Raku will investigate the history and methods of Raku ceramics. There is an emphasis on glazes and firing techniques.

ART 2201 **3**
Intermediate Drawing Meets Goal Area: 06
Intermediate Drawing deepens understanding of a wide range of drawing approaches and materials. Students will refine their application of traditional and contemporary styles to complete tasks in perspective and composition.

ART 2215 **3**
Intermediate Painting Meets Goal Area: 06
Intermediate Painting deepens understanding of traditional and contemporary painting techniques and materials. Students will utilize formal and abstract elements to refine their own visual style. Prerequisite: ART 1115.

ART 2224 **3**
Intermediate Ceramics
Intermediate Ceramics reinforces beginning design experiences by combining methods of construction. Greater emphasis will be placed on glazing and finishing. Prerequisite: ART 1124.

ART 2230 **3**
Computer Graphics Meets Goal Area: 06
Computer Graphics exposes students to photographic manipulation and applied illustrative techniques using Photoshop. Some topics to be covered are: raster vs. vector images, scanning and editing photographs, using a digital camera, designing and manipulating text to communicate ideas, and drawing basic objects for the purposes of illustration.

ART 2232 **3**
Advanced Computer Graphics
Advanced Computer Graphics explores the creative Photoshop techniques of image blending, shadows, image enhancement, type, and background effects. We will also focus on Web applications such as: interface design, slicing, rollovers, animations and optimization.

ART 2240 **3**
Art History I Meets Goal Areas: 06, 08
Art History I provides an overview of the history of painting, sculpture and architecture from the Stone Age to the Early Renaissance.

ART 2245 **3**
Art History II Meets Goal Areas: 06, 08
Art History II provides an overview of the history of painting, sculpture, photography and architecture from the Renaissance to the contemporary era.

AMERICAN SIGN LANGUAGE (ASL)

ASL 1121 **3**
American Sign Language I
American Sign Language I will teach students basic ASL communication strategies used by the Deaf. Course includes expressive and receptive sign activities, sign vocabulary, finger spelling and numbers, and aspects of Deaf culture. This course is offered on-line only.

ASL 1122 **3**
American Sign Language II
American Sign Language II continues to teach basic ASL, grammatical structure, fingerspelling and numbers, conversational strategies and Deaf history and culture. ASL Levels one-four are designed for students interested in becoming certified sign language interpreters. Prerequisite: ASL 1121.

AUTOMOTIVE TECHNOLOGY (AUTO ALSO SEE TRAN)

AUTO 1120 **3**
Air Conditioning
Air Conditioning identifies and defines the theory, principles, diagnosis, testing, and repairs of the air conditioning and heater system operations. Prerequisite: TRAN 1100.

AUTO 1126 **3**
Steering/Suspension/Alignment
Steering/Suspension/Alignment identifies the skills necessary to diagnose and repair steering and suspension systems. The course teaches suspension systems using leaf springs, coil springs, MacPherson struts, torsion bars and wheel balance. The course also covers the principles of operation, disassembly, checks and adjustments of power and manual steering gears, and manual and power rack and pinion systems. The procedures required for checking and adjusting wheel alignment will also be covered.

AUTO 1131 **3**
Brakes
Brakes explains service of automotive brake systems. Included will be diagnosis of problems, system theory and repair, machine procedures, customer satisfaction and safety.

AUTO 1136 **4**
Engine Technology and Lab
Engine Technology and Lab explains and demonstrates the theory of engine cooling and lubrication systems. Students will inspect, repair, and/or adjust the following engine components and systems: valves, cylinder heads, blocks, crank shafts, cooling and lubrication systems. Students will also learn to identify the basic operation, nomenclature and function of engines.

AUTO 1194 **1**
Commercial Driver License Learner Permit Preparation
Commercial Driver License Learner Permit Preparation prepares the students to take the Commercial Driver License Learner Permit written knowledge test in compliance with the Federal Motor Carrier Safety Administration entry level driver training requirements. There is no behind the wheel driving training in this course. Students must be 18 years of age and have a valid driver's license to take the Commercial Driver License Learner Permit written knowledge test.

AUTO 1195 **2**
Commercial Drivers License
Commercial Driver's License introduces and demonstrates the proper driving techniques associated with interstate, highway and city driving along with parking and DOT requirements. Students must have a current Minnesota Class A permit to register for this course.

AUTO 2107 **3**
Automatic Transmissions
Automatic Transmissions explains the theory of operation of automatic transmissions and transaxles and related components. The fundamentals of service of the components of the transmissions will be introduced and practiced in this course. Students will perform the necessary skills to diagnose and repair automatic transmissions and transaxles. Prerequisite: TRAN 1100

AUTO 2108 **3**
Introduction to Hybrid Electric Vehicle
Introduction to Hybrid Electric Vehicle discusses basic hybrid electric vehicle safety procedures, common hybrid electric component fundamentals, and current hybrid vehicle design. It provides an introduction to hybrid electric vehicle test equipment and procedures. Prerequisite(s): AUTO 1100 and AUTO 1111.

AUTO 2113 **3**
Manual Drivetrain and Axles
Manual Drivetrain and Axles describes the fundamentals of conventional and light truck manual transmission and clutches. Contents will include power flow, design, adjustment, overhaul procedures, diagnosis, and repairs. Prerequisite: TRAN 1100.

AUTO 2121 **5**
Engine Performance II
Engine Performance II introduces the theory and repair of automotive engine systems including ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. Students will be introduced to diagnosing and repairing all systems related to engine performance. Prerequisite: TRAN 1100.

AUTO 2122 **5**
Engine Performance III
Engine Performance III expands on the repair of automotive engine systems including ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. Students will diagnose and repair all systems related to engine performance. Prerequisite: AUTO 2121.

AUTO 2146 **4**
Body Computer Controlled Electrical Systems
Body Computer Controlled Electrical Systems explains the theory of operation, diagnosing, and repair of electrical components such as power windows, power seats, ABS brakes, power steering, automatic computer control transmission, A.C climate control, theft deterrent systems, and chassis electronics control systems. Prerequisite: TRAN 1100.

AUTO 2155 **4**
Intro to Diesel Electronics
Intro to Diesel Electronics introduces the computer system used in the diagnostics of today's electronic controlled engines and transmissions. Students will develop reports from the programs and store them for future reference and use this information to diagnose and make repairs to the unit being tested. The course will cover basic Windows operations and scanner diagnostics needed to operate the computerized systems.

AUTO 2190 **0**
Summer Internship
Summer Internship class provides a good overview of what has been covered in the classroom by seeing the way these principles are put to work in the dealership. Hands-on experiences allow the student to disassemble, inspect, evaluate, repair and adjust, and reassemble key elements of the automobile systems.

BIOLOGY (BIOL)

BIOL 1100 **3**
Survey of Biological Science Meets Goal Area: 03
Survey of Biological Sciences introduces major concepts of biology which include cell biology, patterns of inheritance, classification, evolution, and diversity of life. Special emphasis will be placed upon understanding of the science of biology and its significance to everyday life. Biology 1100 is intended for non-majors. This course includes a lab.

BIOL 1110 **4**
Principles of Biology I Meets Goal Area: 03
Principles of Biology I investigates fundamental principles of biology with special emphasis on the composition of living things and living systems, the chemistry of living things, natural selection, cell biology, metabolism emphasizing bioenergetics and biosynthesis, the cell cycle, and genetics. This course includes a lab. Prerequisite: STSK 0090 or placement by multiple measures.

BIOL 1111 **4**
Principles of Biology II Meets Goal Area: 03
Principles of Biology II examines biological diversity and the basic mechanisms and concepts in organismal biology including a survey of life forms (viruses, bacteria, protists, fungi, plants and animals.)

Additional topics will include taxonomy, classification, structure and function of the major groups of plants and animals. This course includes a lab. Prerequisite: BIOL 1110.

BIOL 1115 **3**
Human Biology Meets Goal Area: 03
Human Biology covers some of the fundamental topics in biology, emphasizing the human. Students will explore the structure and function of healthy human body systems and investigate numerous abnormalities and disease states. Additional topics will include human development, aging, human genetics, DNA technology, genetic engineering, biotechnology, and ecological interactions. This course includes a lab. Prerequisite: STSK 0090 or placement by multiple measures.

BIOL 2100 **3**
Ecology Meets Goal Area: 03
Ecology introduces the student to the study of inter-relationships between organisms and their environment. Topics include fundamental principles of ecology at the levels of individual, population, community, and ecosystem, as well as flow of energy, organism-level interactions, and community ecology with an emphasis on applied ecology. Field and laboratory activities will support selected lecture topics. Prerequisite: BIOL 1110.

BIOL 2201 **4**
Human Anatomy Meets Goal Area: 03
Human Anatomy covers structures of the human body from the cellular to organ system level. This course includes study of the human body organization, cellular structure, tissues and the following human organ systems: integumentary, skeletal, muscular, nervous, endocrine, circulatory, lymphatic, respiratory, urinary, digestive, and reproductive. Laboratory exercises are designed to reinforce and support the lecture and include hands-on dissections that coincide with the organ systems covered in the lecture topics. Prerequisite: STSK 0090 or placement by multiple measures. BIOL 1110 or BIOL 1115 is recommended.

BIOL 2202 **4**
Human Physiology Meets Goal Area: 03
Human Physiology covers an applied and systematic approach the physiology of the cells, tissues, organs, and organ systems of the human body. Laboratory exercises support the lecture and include hands-on exercises that coincide with the systems covered in the lecture topics. Prerequisite: BIOL 2201.

BIOL 2230 **4**
Plant Biology Meets Goal Area: 03
Plant Biology covers the fundamental concepts of botany, including plant diversity, taxonomy, morphology, physiology, development, and reproduction. Other topics which will be covered include: viruses, bacteria, and fungi. Laboratory exercises deal with plant, bacteria, and fungi structure and function. Prerequisite: BIOL 1110.

BIOL 2240 **3**
Genetics Meets Goal Area: 03
Genetics covers the fundamentals of plant and animal genetics and includes the study of modes of inheritance, mechanisms of gene action, human genetics, and the behavior of genes in populations. Lecture and lab included. Prerequisite: BIOL 1110.

BIOL 2245 **2**
Medical Terminology Meets Goal Area: 03
Medical Terminology provides students in any of the health science disciplines or pre-professional studies with working knowledge of the terminology used in the health professions and/or biology. Prerequisite: STSK 0090 or placement by multiple measures.

BIOL 2270 **4**
Microbiology Meets Goal Area: 03
Microbiology covers the fundamentals of the science of microbiology, microscopy, structure and function of cells, metabolism, microbial growth and control, genetics, and recombinant DNA technology. Also covered is a survey of the microbial world including bacteria, viruses, and pathogenic fungi, protozoa and multi-cellular organisms. The interaction between the microbe and its host is covered as well as environmental and applied or industrial microbiology. Laboratory exercises are designed to reinforce lecture material and provide an opportunity for students to (1) master microbiological techniques, (2) develop critical thinking skills, and (3) learn to analyze and present data. Prerequisite: STSK 0090 or placement by multiple measures. BIOL 1110, CHEM 1101 or CHEM 1150 is recommended.

BIOTECHNOLOGY (BIOT)

BIOT 1101 **3**
Introduction to Biotechnology
Introduces the field of biotechnology and its applications in industry and agriculture. Components will consist of lectures coordinated to labs, which demonstrate the application of this science to this emerging field.

BIOT 2201 **3**
Organic and Biological Chemistry
Covers organic functional groups - physical and chemical properties, various specific organic molecules and their role in industry and/or the environment, lipids, proteins, enzymes, nucleic acids, protein synthesis and metabolism. Prerequisites: CHEM 1100 or CHEM 1101.

BIOT 2205 **3**
Molecular and Cellular Biology
Covers the cellular functions and molecular structures of both prokaryotic and eukaryotic organisms. Topics will include DNA, RNA and protein synthesis, DNA replication, recombination and insertion methods, isolation and purification methods of biological molecules, principles of immunology and virology, and DNA technology.

BIOT 2210 **4**
Biotechnology Methods I
Introduces the student to the equipment commonly used to support a modern biologics lab. Topics will include instrument care and calibration, laboratory records and statistics, media and product preparation, GMP/GLP regulations, governmental regulations and methods for isolating and purifying targeted biological molecules.

BIOT 2220 **4**
Biotechnology Methods II
Extends the concepts and theories from Biotechnology I and applies these techniques to small and large scale production. Areas covered will include cell culture, immunoassays, fermenters, inventory control and quality control. Prerequisite: BIOT 2210.

BIOT 2225 **4**
Analytical and Investigative Lab Techniques
Introduces the student to quantitative analysis of biological components and products. Students will have to process raw samples, identify which assay is appropriate for the sample, and report assay results. Topics include cell fractionation, chromatography, electrophoretic techniques, fluorescence, spectrophotometry, and microscopy among others. Prerequisite: BIOT 1101.

BIOT 2297 **2-8**
Biotech Internship
Provides the student with on the job experience in the field of biotechnology.

BUSINESS (BUS)

BUS 1101 **4**
Introduction to Business
Introduction to Business provides students with vital exposure to the major business functions in a dynamic free enterprise environment. The course offers students relevant exposure to background information necessary to execute decision-making in a multitude of business specialties. Fundamentals are emphasized in areas as management, marketing, financing, and information systems.

BUS 1104 **3**
Business Mathematics
Business Mathematics emphasizes mathematical concepts through practical applications in business situations using percentages, statistics, and equations. Concepts include simple interest and discount, consumer credit, compound interest, future value and present value, investments and mortgages, insurance and taxes.

BUS 1105 **2**
Introduction to Entrepreneurship
Introduction to Entrepreneurship presents information on starting a new business, developing a business plan, buying an existing business, and understanding the realities of the entrepreneurial lifestyle. Entrepreneurial issues involved in managing and growing an entrepreneurial venture will be covered in a separate class. This course is intended for all students at Minnesota West regardless of their major.

BUS 2105 **2**
Introduction to Entrepreneurship
Introduction to Entrepreneurship engages students in starting a new business, developing a business plan, buying an existing business, and understanding the realities of the entrepreneurial lifestyle. Entrepreneurial issues involved in managing and growing an entrepreneurial venture will be covered in a separate class. This course is intended for Minnesota West students regardless of their major.

BUS 2201 **4**
Principles of Accounting I
Principles of Accounting I teaches the basic concepts that are the prerequisites for all other courses in accounting. Included is an introduction to the accounting system; the processing of accounting data, the purposes and construction of different types of financial statements, and the development of financial accounting.

BUS 2202 **4**
Principles of Accounting II
Principles of Accounting II develops accounting as a planning, analysis, and control tool facilitating the decision-making process of management. The course examines cost and managerial accounting principles and practices, including cost accounting, budgeting, performance measurement, and cost-volume- profit analysis.

BUS 2221 **3**
Principles of Management
Principles of Management studies the general principles of management planning, organizing, staffing, directing and controlling the establishment. Course emphasis is placed on the development of goals, policies, and systems necessary to coordinate all resources of an organization to achieve objectives. The importance of adequate managerial communication and motivation in accomplishing specific purposes, and the decision-making and the problem-solving process are emphasized.

BUS 2230 **3**
Principles of Marketing
Principles of Marketing analyzes the role and importance of marketing as a directing force in a business organization and its relationship to our society. Emphasis is placed on principles, methods, and problems involved in the marketing operations of the firm, including development, pricing, marketing channels, and promotion.

BUS 2232 **3**
Professional Selling
Professional Selling emphasizes the role and nature of professional selling and the total marketing and promotional effort in accomplishing the objectives of a business enterprise. The principles, practices, and psychology of salesmanship are stressed with a study of customer buying/behavior/motivational theories.

BUS 2233 **3**
Advertising
Advertising studies the role of advertising and its relationship to the total promotional and marketing efforts of any organization selling goods/services/ideas. Emphasis is placed on selecting the right appeals, layout, and media in reaching the target market. The total communication process is studied in light of various consumer psychology/behavioral theories.

BUS 2241 **3**
Business Law
Business Law will provide a basic understanding of the American legal system and its processes, and an enhanced understanding of the modern global business environment. It examines the legal framework within which business is transacted, not only by business and professional people but also by consumers. Topics include origin of law, ethics, contracts, sales, bailments, negotiable instruments, secured transactions, bankruptcy, real and personal property, product liability, dispute resolution, principal and agent relationships, and business organizational structures.

BUS 2242 **3**
Business Communications
Business Communications covers theory and offers practice in the fundamentals of good business communications. Emphasis is placed on the construction of effective (and positive) business letter writing. Resume writing, cover letters, interviewing techniques, memos and reports are also integral parts of the course.

BUS 2275 **3**
Human Resources Management
Human Resources Management provides an analysis of the importance of personnel management in accomplishing the established objectives of a business. Utilization of human resources is emphasized. Management of proper relationships with labor unions, government authorities, and the total community is studied.

BUS 2297 **0**
Internship
Internship offers students paid or unpaid work experience closely related to their academic and career pursuits. Activities are closely supervised by college instructors and on-the-job supervisors.

CHEMISTRY (CHEM)

CHEM 1100 **3**
Introduction to Chemistry Meets Goal Area: 03
Introduction to Chemistry introduces fundamental theories and applications of chemistry including measurement, atomic theory, bonding theory, nomenclature, chemical quantities, chemical reactions, states of matter, solutions, acids and bases, and nuclear chemistry. This course is for students with no recent background in chemistry and is intended for non-science majors and students preparing for General Chemistry I. This course includes a lab. Prerequisite: High school algebra (or) MATH 1107 (or) placement by multiple measures.

CHEM 1101 **4**
General Chemistry I Meets Goal Area: 03
General Chemistry I provides an in-depth introduction to fundamental theories and applications of chemistry including measurements, matter, chemical quantities, thermochemistry, atomic theory, bonding theory, and gases. This course is for students considering a major in science, pre-engineering, or pre-health (medicine, pharmacy, veterinary medicine, four-year nursing). This course is the first semester in a two-semester general chemistry sequence. This course includes a lab. Prerequisites: High school chemistry (or) CHEM 1100 (or) CHEM 1150, High school algebra (or) MATH 1107 (or) placement by multiple measures.

CHEM 1102 **4**
General Chemistry II Meets Goal Area: 03
General Chemistry II continues CHEM 1101 with emphasis on liquids, solids, solutions and solubility, kinetics, equilibrium, acids and bases, thermodynamics, electrochemistry, coordination compounds, and nuclear chemistry. This course is for students considering a major in science, pre-engineering, or pre-health (medicine, pharmacy, veterinary medicine, four-year nursing). This course includes a lab. Prerequisite: CHEM 1101.

CHEM 1150 **4**
Survey of Chemistry Meets Goal Area: 03
Survey of Chemistry introduces key concepts of general, organic, and biological chemistry including measurement, matter, nomenclature, chemical quantities, chemical reactions, solutions, acids and bases, organic compound families and reactions, and macromolecules of biological importance such as carbohydrates, lipids, proteins, and nucleic acids. This course is for pre-health, medical science, and liberal arts students, and no recent background in chemistry is required. This course includes a lab. Prerequisite: High school algebra (or) MATH 1107 (or) placement by multiple measures.

CHEM 2201 **5**
Organic Chemistry I Meets Goal Area: 03
Organic Chemistry I covers the structure, classification, and fundamental reactions of carbon compounds. Specific topics include molecular structure, nomenclature, isomerism, reaction mechanisms, and reaction classes including proton transfer, nucleophilic substitution, elimination, and alkene addition. This course is for students majoring in science, pre-engineering, or pre-health (medicine, pharmacy, veterinary medicine). This course is the first semester in a two-semester organic chemistry sequence. This course includes a lab. Prerequisite: CHEM 1101.

CHEM 2202 **5**
Organic Chemistry II Meets Goal Area: 03
Organic Chemistry II continues CHEM 2201 with emphasis on multistep organic synthesis, orbital interactions, structure determination, and reaction classes including addition, nucleophilic addition-elimination, aromatic substitution, pericyclic reactions, free radical reactions, and polymerization. This course is for students majoring in science, pre-engineering, or pre-health (medicine, pharmacy, veterinary medicine). This course includes a lab. Prerequisite: CHEM 2201.

CRIMINAL JUSTICE (CJS)

CJS 1100 **1-3**
Criminal Justice Practicum
Criminal Justice Practicum allows students in the law enforcement program to be involved in the day-to-day operations of a criminal justice agency. Expose the students to the work that is required to be performed in that agency. These internship/field experiences will provide the students an opportunity for practical application of learned academic content in real world settings to help develop long-term academic and career plans. Prerequisite: CJS 1101.

CJS 1101 **3**
Introduction to Criminal Justice Meets Goal Area: 05
Introduction to Criminal Justice provides an overview of the criminal justice system in US society, including the philosophy, history, organization, and function of the police, courts, and corrections. Topics include foundations of crime; justice and law; federal, tribal and state elements; victimization; victim rights; crime statistics and the extent of crime; police issues; juvenile justice system; juvenile delinquency; court systems; corrections, community corrections; professional career opportunities; and future trends. This course is part of the Minnesota State Professional Peace Officer Education (PPOE) transfer pathways.

CJS 1111 **3**
Criminal-Constitutional Law
Criminal-Constitutional Law provides learners an appreciation and understanding of the United States Constitution and the role it plays in democracy. The historic basis and development of constitutional concepts are explored. Constitutional limitations on governmental authority over private citizens are discussed and analyzed as interpreted by Federal and State Supreme Court decisions. The 1st, 4th, 5th, 6th, and 14th Amendments are stressed.

CJS 1120 **2**
Physical Fitness for Peace Officers I
Physical Fitness for Peace Officers I introduces students to strategies for physical conditioning, good nutrition and healthy eating habits for peace officers. Students will be required to perform stretching, aerobics and conditioning exercises at the direction of an instructor as part of an overall fitness program to enhance strength, agility, flexibility, speed, and cardiovascular endurance. Students will be introduced to and evaluated on their ability to meet the Minnesota Peace Officer Standards and Training Board approved law enforcement-related physical fitness test.

CJS 1125 **1**
Physical Fitness for Peace Officers II
Physical Fitness for Law Peace Officers II continues students' development in performing stretching, aerobics and conditioning exercises at the direction of an instructor as part of an overall fitness program to enhance strength, agility, flexibility, speed, and cardiovascular endurance. Students will need to meet the minimum standard for the Minnesota Peace Officer Standards and Training Board approved law enforcement-related physical fitness test by the end of the course.

CJS 1150 **2**
Homeland Security and Terrorism
Homeland Security and Terrorism studies terrorism, counterterrorism, terrorist personalities, and terrorist groups, including types, tactics, and trends on a worldwide scale as well as domestically. This course also examines the issues of prevention, civil liberties and the role and responsibilities of entry level peace officers.

CJS 1170 **2**
Minnesota Traffic Code
Minnesota Traffic Code covers all of the 169 Minnesota Traffic Statutes. The class includes the application, interpretation, and enforcement of motor vehicle operation, registration, insurance and safety responsibility acts, driver's license laws, rules and regulations.

CJS 1200 **3**
Juvenile Justice
Juvenile Justice examines the history of the juvenile justice system in the United States and Minnesota. Students will be able to distinguish the major differences between the adult and the juvenile justice system in the United States and Minnesota by examining Supreme Court rulings, laws and Minnesota statutes regarding juveniles. Additionally, students will develop an understanding of the responsibilities of federal, state and local criminal justice agencies in dealing with juveniles.

CJS 1210 **4**
Communication Relations
Communication Relations synthesizes the concepts of interpersonal communications to allow students to better understand human behavior and verbal communications. The students will develop an understanding of barriers that can occur to effective communication due to the types of situations peace officers work in. Students will examine and relate ways to effectively interpret, comprehend, and deliver verbal communication in order to effectively carry out peace officer duties.

CJS 1220 **3**
Criminal Justice and Community
Criminal Justice and Community provides the student with contemporary concepts related to criminal justice interactions with the community including models of community policing, problem-oriented policing, crime prevention and developing community relations. Instruction in professional police conduct related to officer ethics, leadership and interpersonal communication in interactions with culturally diverse populations will be examined. Student will also be introduced to privacy data practices and the expectations during internal affairs investigations.

CJS 1230 **3**
Victimology
Victimology provides the student with contemporary concepts of impact of human behavior on the interactions between peace officers and individuals and how that interaction affects these relationships. Students will be introduced to techniques for dealing with individuals in crisis and victimization of individuals including: domestic abuse, sexual assault, individuals with disabilities, and crimes motivated by bias or hatred. Concepts of addressing issues of gangs, drugs, terrorism and homeland security will also be discussed.

CJS 1240 **3**
Criminal Justice Leadership-Ethics
Criminal Justice Leadership - Ethics develops the principles of leadership, consensus building, showing respect for the opinions of others, and encourage cooperation, adaptability, and conflict resolution as it relates to carrying out peace officer duties. Students will examine the day to day ethical choices officers have to make and the consequences of making poor decisions both morally and legally. The students will demonstrate these leadership and ethical qualities by working with area criminal justice agencies on projects to address current issues in the community and working on solutions to these issues.

CJS 2224 **2**
Criminal Justice Report Writing
Criminal Justice Report Writing develops the students understanding of legal, procedural, and need for factual reports in the criminal justice

process. Students will be exposed to a variety of reports and forms used in law enforcement as well as a variety of report writing mediums including computer applications. Students will practice writing reports in a detailed chronological order using proper formatting. Emphasis will be placed on proper spelling, grammar, punctuation, and the ability to create a clear and concise meaning throughout the report. Prerequisites: Formally accepted into Peace Officer Program.

CJS 2233 **4**
Firearms-Tactical Management
Firearms-Tactical Management examines the physiological, psychological and emotional effects of stress on peace officers in their careers and during critical incidents to allow students to recognize these effects and develop skills to deal with stress. This course will focus on familiarizing students with the safe handling, nomenclature, and proper shooting of handgun's, shotgun and patrol rifles requiring students to demonstrate proficiency after receiving instruction in the handling and use of handguns, shotgun, and patrol rifles. Students will then examine and complete exercises in critical incident management and different tactical responses to situations which may occur in the course of their duties. Prerequisite: Must be formally accepted into the Peace Officer Program.

CJS 2235 **1**
Special Topics
Special Topics: Emergency Vehicle Operator's Course covers and meets Professional Peace Officer Education learning objectives for pre-service Emergency Vehicle Operations. Category 4, Section 4, 4.4.1, 4.4.7.

CJS 2250 **4**
Traffic Operations
Traffic Operations explains and develops students understanding of how to investigate motor vehicle crashes and driving while impaired offenses. Through instruction students will establish how to fully investigate and document both motor vehicle crashes and driving while impaired offences and will demonstrate through reality-based training exercises how to properly complete these investigations including the use of State computer applications. This course will train students how to operate both RADAR/LIDAR units and will require the students to complete the State ARMER radio course. Prerequisite: Must be formally accepted into the Peace Officer Program.

CJS 2295 **1**
P.O.S.T. Seminar
P.O.S.T. Seminar provides a program overview, with opportunities to discuss changes in the field and P.O.S.T. requirements.

CJS 2297 **1-3**
Criminal Justice Internship
Criminal Justice Internship allows students in the Peace Officer Program to be involved in the day-to-day operations of a criminal justice agency. Expose the students to the work that is required to be performed in that agency. These internship/field experience(s) will provide the students an opportunity for practical application of learned academic content in real world settings to help develop long-term academic and career plans. Prerequisite: CJS 1101.

CJS 2300 **4**
Patrol Operations
Patrol Operations introduces students to the basic principles of patrol operations. Students will develop an understanding of patrol work including responding to calls, investigations, and enforcement of various laws and the functions needed to carry out these duties by applying knowledge learned in other criminal justice courses. Students will be required to practically apply the knowledge and skills learned throughout the Peace Officer program by successfully completing reality-based training exercises in a patrol setting. Prerequisite: Must be formally accepted into the Peace Officer Program.

CJS 2310 **4**
Use of Force
Use of Force identifies and examines current Supreme court cases, case law, and Minnesota State law on the application of force by peace officers while providing a variety of situations where force may or may not be authorized by providing an understanding of the concepts of reasonable use of force and report documentation. This course will focus on familiarizing students through hands on instruction with a variety of verbal commands, escorting principles, pain compliance, countermeasures, restraint, ground fighting, and baton techniques. Specific instruction on electronic control weapon (ECW) and chemical agents will be given during the course. Students will be required to demonstrate proficiency after receiving instruction in these techniques through a variety of static and dynamic testing, including reality-based training exercises. Prerequisite: Must be formally accepted into the Peace Officer Program.

CJS 2350 **12**
Skills Certificate
Skills Certificate provides students that have completed POST Boards approved Professional Peace Officers Education (PPOE) Academic Program with the skills requirements of the Professional Peace Officers Education Category Three: Performance of Peace Officer Duties and Tasks and Category Four: Tools, Techniques and Tactics for licensing as a peace officer. This course meets the transfer pathways requirements.

CJS 2350 **12**
Skills Certificate
Skills Certificate provides students that have completed POST Boards approved Professional Peace Officers Education (PPOE) Academic Program with the skills requirements of the Professional Peace Officers Education Category Three: Performance of Peace Officer Duties and Tasks and Category Four: Tools, Techniques and Tactics for licensing as a peace officer. This course meets the transfer pathways requirements.

CJS 2400 **4**
Minnesota Statutes
Minnesota Statutes introduces students to Minnesota Traffic Statutes, Criminal Statutes, and Selected Statutes. Students will receive instruction on the interpretation of the State statutes by identifying and analyzing the elements of each statute. Hypothetical situations will be presented to assist students with the understanding and application of State statutes. This course is part of the Minnesota State transfer pathways.

CJS 2410 **3**
Criminal Investigations
Criminal Investigations develops the basic procedural aspects of the criminal investigative process. Through instruction, evaluation of key elements of crimes, and case evaluations students will identify the process of completing a criminal investigation from first arrival on the scene of a crime through the court process. Specific areas that will be identified during the course will be legal and procedural aspects, responsibilities, interviewing and interrogating, document preparation, and court testimony.

CJS 2420 **3**
Criminal Procedures
Criminal Procedures provides the learner with the history of the United States Constitution and Bill of Rights and the constitutional limitations on government authority over private citizens. Key concepts will be analyzed and discussed as interpreted by Federal and State Supreme Court decisions to allow students to become familiar with the procedural handling of individuals in criminal cases, rules of evidence, forfeitures, criminal defense, and civil liability.

CJS 2500 **2**
Traffic Stops
Traffic Stops introduces the student to basic patrol vehicle operation and examines approaches to conducting low, medium, and high-risk vehicle stops. Through instruction and coaching students will develop an understanding of the different vehicle dynamics used during vehicle stops and how to properly write and issue traffic citations. Students will be required to demonstrate proper vehicle stops through reality-based training exercises. Prerequisite: Must be Formally accepted into the Peace Officer Program.

CJS 2510 **2**
Crime Scene Processing
Crime Scene Processing develops the fundamentals of crime scene investigations. Through instruction and coaching students will develop an understanding of the different phases of crime scene examination, documentation, and evidence identification and collection. Students will be required to demonstrate proper investigation and processing skills

through reality-based training exercises. Prerequisite: Must be formally accepted into the Peace Officer Program.

CENTER FOR MANUFACTURING AND APPLIED ENGINEERING (CMAE)

CMAE 1514 **2**
Safety Awareness
Safety Awareness introduces OSHA standards relating to personal protective equipment, lock out/tag out, Hazardous materials, Hazard Communication, tool safety, confined spaces, electrical safety, emergency response, and others. This course is designed to align with the National Skills assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers.

CMAE 1518 **2**
Manufacturing Process and Production
Manufacturing Process and Production emphasizes lean manufacturing principles, basic supply chain management, communication skills, and customer service. This course is designed to align with the National Skills assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers

CMAE 1522 **2**
Quality Practices
Quality Practices introduces quality management systems and its components. This course is designed to align with the National Skills assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers.

CMAE 1526 **2**
Maintenance Awareness
Maintenance Awareness introduces the concepts of Total Productive Maintenance and preventative maintenance. This course is designed to align with the National Skills assessment and certification system for Maintenance Awareness. The course curriculum is based upon federally-endorsed national standards for production workers.

COMMUNITY HEALTH WORKER (CMHW)

CMHW 1000 **3**
Community Health Worker Role, Advocacy, Outreach & Resources
Community Health Worker Role, Advocacy, Outreach and Resources defines the role of the Community Health Worker(CHW). Strategies for personal safety related to home visits will be explained. The value of self-care and personal wellness will be introduced. Familiarity with health-related needs of communities and cultural considerations will be related to the CHW role of liaison and the skill of connecting clients and appropriate community resources. Co-requisite: CMHW 1100.

CMHW 1100 **3**
Health Communication, Teaching, and Capacity Building
Health Communication, Teaching & Capacity Building will introduce concepts of communication required for effective culturally appropriate interactions. Application of active listening and motivational interviewing techniques will be practiced. Materials will emphasize empowering clients to become self-sufficient in achieving personal health goals within the role of a CHW. Trauma approach in the CHW field including physiological effects, factors, resilience, self-care and mindfulness practice. Co-requiste: CMHW 1000.

CMHW 1200 **3**
Documentation, Legal &Ethical Issues in Community Health Work
Documentation, Legal & Ethical Issues in Community Health Work focuses on professional boundaries, agency policies, confidentiality, liability, mandatory reporting and cultural issues that influence legal and ethical responsibilities for the Community Health Worker (CHW) role. Documentation for CHW client visits that meet legal and agency requirements in an appropriate, accurate, thorough manner will be introduced and practiced. Prerequisite: CMHW 1100.

CMHW 1250 **2**
Health Promotion I
Health Promotion I focuses on the role of the Community Health Worker (CHW) in health promotion related to complementary, alternative and integrative health. Cultural navigation, presentation skills and connecting clients to resources and support systems will be practiced. Prerequisites: CMHW 1100. Co-requisites: CMHW 1200 and CMHW 1300.

CMHW 1300 **3**
Health Promotion II
Health Promotion II explores the role of the Community Health Worker (CHW) in health promotion and disease prevention management strategies related to the topics of sexuality, gender identity, chronic disease, infectious disease, communicable disease, diabetes, heart disease and stroke, cancer, oral health, asthma, COPD, trauma informed care, and healthy aging. Cultural navigation, presentation skills and connecting clients to resources and support systems will be practiced. Co-requisite: CMHW 1200 and CMHW 1250. Prerequisites: CMHW 1100.

CMHW 1400 **2**
Community Health Worker Internship
Community Health Worker Internship is a supervised practical experience (72-80 hours) allowing the CHW student to explore opportunities for independent work in the Community Health Worker role. The student may choose to do all internship hours at one organization (All sites and supervisors must be approved by the instructor prior to student participation). Prerequisite: CMHW 1200, CMHW 1250, and CMHW 1300.

COMMUNICATIONS (CMST)

CMST 1101 **3**
Public Speaking Meets Goal Area: 01
Public Speaking develops students experience in the basic fundamentals of effective public speaking. Students will prepare and deliver a variety of speeches as well as critique them.

CMST 1103 **3**
Interpersonal Communication Meets Goal Area: 01
Interpersonal Communication develops students understanding in becoming more competent interpersonal communicators. Students will gain valuable skills and learn communication strategies to develop and manage relationships more effectively.

CMST 1120 **3**
Intercultural Communication Meets Goal Areas: 07, 08
Intercultural Communication develops an awareness about the importance of intercultural communication and how our own unique cultural experiences affect our communication choices. Listening, nonverbal communication, and other topics relating to intercultural communication like culture shock and communication competency will be explored.

CMST 1130 **3**
Small Group Communication Meets Goal Area: 01
Small Group Communication develops students understanding of how the group communication process works. Students will also develop knowledge on specific group communication terms and skills while participating in small groups.

CMST 1140 **3**
Topics in Communication: Puerto Rican Culture Meets Goal Areas: 07, 08
Topics in Communication: Puerto Rican Culture will teach students how to be effective intercultural communicators by learning about various aspects of communicating across cultures. After completing the classroom portion of the course, students will have the opportunity to travel to Puerto Rico to experience another culture firsthand and apply the intercultural communication skills that they have learned in the course. Students will experience the vibrant local heritage of Puerto Rico as they explore and celebrate traditional customs with locals.

CMST 1150 **3**
Exploring Mass Media Meets Goal Areas: 05, 09
Exploring Mass Media develops media-literate citizens through the examination of various aspects of mass communication. Emphasis will be placed on developing a critical awareness of mass media, convergence, strategic communication, media ethics, and the societal impact of media.

CMST 1160 **3**
Basic Media Writing Meets Goal Areas: 01, 09
Basic Media Writing develops skills in media writing, reporting and editing. The focus of this class will be writing which will be done through various skill-building exercises and written assignments for various media formats and audiences which could include broadcast, print, online, and social media.

CMST 1170 **3**
Public Relations Meets Goal Area: 09
Public Relations explores the principles, practices and ethics of strategic communication used in public relations historically and in the modern world of communication. By using an active learning approach, students will research, create and evaluate public relations messages.

CMST 2210 **3**
Oral Interpretation Meets Goal Area: 06
Oral Interpretation focuses on interpretation of short fiction, poetry, drama, and children's literature for oral presentation. The student will examine selected texts and incorporate body and voice control techniques in performance.

CMST 2235 **3**
Special Topics: Storytelling in Ireland
Meets Goal Area: 06
Storytelling in Ireland will develop students understanding of the importance storytelling has across cultures, specifically in Ireland. Students will study the different types of stories, read different stories relating to Ireland, and perform and write their own story. After the classroom portion of the course, students will travel to Ireland to experience the places and culture they have read about through the Irish stories shared in the class firsthand while in Ireland.

COSMETOLOGY (COSM)

COSM 1100 **4**
Preclinic Introduction
Preclinic Introduction will examine the field of Cosmetology which includes hair, nail and skin care. Areas of study will include professional image, Minnesota laws and rules, safety, cleaning and disinfection, anatomy, electricity, and chemistry as related to the profession. This course will contribute 96 hours towards licensure.

COSM 1105 **4**
Preclinic Hair Care
Preclinic Hair Care will examine the basics elements of all hair care services. Topics will include trichology, shampooing, conditioning, cutting, and hair design. Students will demonstrate hairstyling skills that meet the needs of a varied clientele. This course will contribute 96 hours towards licensure.

COSM 1110 **4**
Preclinic Nail Care
Preclinic Nail Care will examine nail care theory and practical experiences involving manicures, pedicures, and artificial enhancements. This course will contribute 112 hours towards licensure.

COSM 1115 **4**
Preclinic Color and Texture
Preclinic Color and Texture will examine coloring and chemical texture services. Provides an understanding of temporary, semi-permanent, demi-permanent, and permanent color as well as lightening and corrective coloring techniques. Texture services, such as permanent waving, soft-curl perm, and hair relaxing will also be performed. This course will contribute 112 hours towards licensure.

COSM 1120 **4**
Preclinic Skin Care
Preclinic Skin Care will examine dermatology and skin care services which include skin analysis, facial massage, makeup application, and waxing. This course will contribute 112 hours towards licensure.

COSM 1130 **3**
Advanced Hair Care
Advanced Hair Care enables students to examine opportunities to develop the practical skills necessary for entry-level salon work concentrating on advanced techniques in chemical hair control, safety procedures and sanitation, hair coloring formulations and applications. This course will concentrate on hair color theory, advanced haircutting techniques and methodologies, communications skills and retail operations. This course will contribute 80 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or permission from instructor.

COSM 1135 **3**
Salon Preparation
Salon Preparation facilitates the development of practical skills necessary for entry-level salon work concentrating on safety procedures and sanitation, business structure and organization, technical writing and creation of a professional resume, interview techniques and preparation, retail operations, and the required skill readiness to perform salon services. This course will contribute 80 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisite: Instructor Permission Required.

COSM 1140 **4**
Clinic I
Clinic I will assist students to develop the practical skills necessary for entry-level salon work concentrating on nail structure and growth, nail diseases and disorders, as well as advanced techniques for manicuring, pedicuring, and artificial nail applications. This course will contribute 112 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1145 **4**
Clinic II
Clinic II serves to develop the practical skills necessary for entry-level salon work. This course will also provide lecture hours concentrating on salon management, Minnesota Cosmetology Laws and Rules, communication skills, and retail operations. This course will contribute 112 hours towards licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisite: Instructor Permission Required.

COSM 1150 **4**
Clinic III
Clinic III will facilitate development of the practical skills necessary for entry-level salon work concentrating on nail tip enhancement application, application techniques utilizing resin and wraps, as well as the application of various building, bonding, and structure light cured gels. This course will explore Minnesota Cosmetology Laws and Rules, communication skills, and retail operations. This course will contribute 112 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements.

COSM 1155 **3**
Clinic IV
Clinic IV will apply practical skills necessary for entry-level salon work. Cosmetologists and Estheticians will concentrate on safety procedures and sanitation, plan and perform specialty facial services to enhance skin, perform advanced facial and body hair removal procedures, and artificial eyelash extension and enhancement application methodologies. Estheticians will also focus on the completion of the quotas needed to conclude their Minnesota requirements, as well as review for the esthetician's state board written and practical exams. This course will contribute 80 hours toward licensure The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisite: Instructor permission required.

COSM 1160 **4**
Clinic V
Clinic V facilitates students to explore opportunities to develop the practical skills necessary for entry-level salon work concentrating on hair and scalp analysis, manual texture manipulations including braiding and twisting, application and customization of wigs and hair additions/extensions, safety procedures and sanitation, and fulfillment of state mandated service quotas for licensure. This course will contribute 96 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1165 **3**
Clinic VI
Clinic VI gives students the opportunity to develop the practical skills necessary for entry-level salon work concentrating on understanding and implementation of Minnesota State Board of Cosmetology Laws and Rules, preparation for state written and partial skills assessments, and fulfillment of state mandated service quotas for licensure. This course will contribute 80 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: Preclinic courses COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1170 **3**
Clinic VII
Clinic VII enables students to examine opportunities to develop the practical skills necessary for entry-level salon work concentrating on advanced techniques in chemical texture control, haircutting, safety procedures and sanitation, hair coloring formulations and applications, fulfillment of state mandated service quotas for licensure, and implementation of soft skills with an emphasis on client consultation and effective professional communication. This course will contribute 96 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor

COSM 1175 **3**
Clinic VIII
Clinic VIII enables students to examine opportunities to develop the practical skills necessary for entry-level salon work concentrating on advanced techniques in chemical texture control, haircutting, safety procedures and sanitation, hair coloring formulations and applications, fulfillment of state mandated service quotas for licensure, and implementation of soft skills with an emphasis on client consultation and effective professional communication. This course will contribute 80 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1181 **2**
License Preparation for Cosmetology I
License Preparation for Cosmetology I prepares the student for the Minnesota State Board written and practical examinations, as well as licensure in alternate states. Students will review Minnesota Statutes and Rules in preparation for the required skills readiness tests and salon experience. This course will provide students with an opportunity to develop the practical skills necessary for entry-level salon work, concentrating on safety procedures and sanitation. This course prepares students for licensure and entry level salon employment. This course will contribute 48 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1182 **2**
License Preparation for Cosmetology II
License Preparation for Cosmetology II prepares the student for both their Minnesota State Board written and practical examinations. Students will review Minnesota Statutes and Rules in preparation for the required skills readiness tests and salon experience. This course will provide students with an opportunity to develop the practical skills necessary for entry-level salon work, concentrating on safety procedures and sanitation. This course will cover basic anatomy and physiology, skin structure, skin disorders and diseases, as well as the basic components of cosmetic chemistry. This course will contribute 48 hours toward licensure. The State of Minnesota mandates the hours to go toward the hour requirements. Prerequisites: COSM 1100, COSM 1105, COSM 1110, COSM 1115, COSM 1120 or by permission from instructor.

COSM 1220 **1-18**
Salon Operations VIII
Salon Operations VIII provides additional hours for licensure in other states along with additional hours needed to complete the Nail Technician program and prepare for licensure. This course may also be used to fulfill the hour requirements for the Cosmetology and Esthetics programs. Students will apply and practice safety/sanitation procedures along with operational requirements. Students will have an opportunity to develop the practical skills necessary for entry level salon work pertaining to the program area of study, whether it is Cosmetology, Nail Tech or Esthetics. Prerequisite: Completion of Minnesota required hours in Cosmetology, Nail Tech, or Esthetician course.

CARPENTRY (CRPT)

CRPT 1101 **2**
Tool Safety, Construction Terms & Materials
Tool Safety, Construction Terms and Materials helps the student to learn the different types of materials and terms used on all construction sites and how to maintain and use all hand and power tools.

CRPT 1155 **2**
Building Science
Building Science will teach students about the house as a system and will include advanced topics in building shell components, air sealing, insulation, air quality and health and safety.

CRPT 1175 **5**
Construction Finishing Techniques
Construction Finishing Techniques examines finishing of the exterior of a building which includes the door and window units and all the materials that cover the roof and exterior. They must also give weathertight protection to the roof and exterior walls.

CRPT 1180 **1**
Construction Math
Construction Math establishes the mathematical skills necessary for estimating materials, performing necessary calculations and conversions necessary for interior and exterior work. Application on linear, square and cubic measurements and their relationship to the construction trades process will be studied.

CRPT 1185 **2**
Construction Principles
Construction Principles introduces students to hands-on building from the sill to finishing the exterior. The work is done on site and mock-ups will also be utilized for additional work experience. Concrete work is also introduced.

CRPT 1190 **3**
Framing & Construction
Framing & Construction assists students in gaining hands-on experience laying out, building, straightening, bracing and leveling walls, floors and roof truss framing.

CRPT 2205 **3**
Foundations and Floors
Designed to give the student hands-on experience with laying out and squaring up foundation walls, and actual construction of various types of foundation structures for a residential home. Concrete mixtures, estimating, pouring consistencies, placement and finishing techniques for vertical and flatwork concrete pours are also included.

CRPT 2215 **2**
Concrete Technology
Covers designing concrete mixes for specific uses, preparing sub-base areas and building forms, handling and placement of concrete mixes and finishing techniques.

CRPT 2220 **2**
Intermediate Construction
Intermediate Construction examines finishing carpentry work on a house project. Remodeling practices are also taught. Mock-ups will be used to create a variety of construction projects for additional work experience.

CRPT 2225 **5**
Construction Finishing Essentials
Construction Finishing Essentials covers the installation of cabinets, interior and exterior house trim. The work is done on site and mock-ups will be used for additional work experience.

CRPT 2230 **2**
Construction Essentials
Construction Essentials covers identification of all types of interior finish materials, installation of such materials and finishing techniques. A variety of types of staircases will be studied and constructed.

CRPT 2234 **3**
Construction Techniques
Construction Techniques discusses the theory behind hand-built roof systems. Students will be taught how to use a framing square and roof terminology. Finishing of the interior and exterior portions of these systems will be taught on site.

CRPT 2235 **3**
Wall and Roof Framing
Designed for identification and assembly of all components in Western Platform framing construction in accordance with all state and local codes. Students will perform horizontal and vertical layout of interior and exterior wall assemblies. Erect, plumb and brace walls, fasten components together, and install exterior wall sheathing. Students will install roof truss systems, hand frame roof sections of various styles, including ceiling vaults and trays, install roof sheathing and apply shingles and flashings.

CRPT 2237 **4**
Exterior Finish and Shingling
Covers identification and application of all types of siding, shingles, soffet and facia covers and rain gutters. Also covers attic ventilation equipment installation. These skills will be developed by the construction of an on-site built residential home.

CRPT 2245 **1**
Cabinet Layout and Design
Provides training to analyze cabinet needs and available spaces and design cabinets for specific uses. Drawing up of basic construction plans is an integral part of this course.

CRPT 2250 **5**
Cabinet Construction
Explore the construction of a variety of kitchen, bathroom, utility, and specialty cabinets and countertops.

CRPT 2270 **2**
Construction Business Management
Construction Business Management covers the basic principles of construction business accounting, organization of business structure, employee management, business licensing requirements and trade knowledge for the purpose of starting your own small business.

CRPT 2271 **3**
Construction Drafting, Design, and Blueprint Reading
Construction Drafting, Design and Blueprint Reading introduces the students to the basic principles of mechanical drafting, architectural drafting and the design of floor plans. Auxiliary views, cross sections and elevation views will also be studied and drawn. Students will have the opportunity to learn both hand drafting methods and computer aid drafting. The student will be taught the skills needed to accurately read and interpret a complete set of working drawings for residential and light commercial construction projects.

COMPUTERIZED SMALL BUSINESS (CSBM)

CSBM 1100 **1**
Disk Operating Systems for Small Business
This course covers DOS and hard drive concepts. The emphasis is on concepts and commands that will enable the student to better understand and maintain their own microcomputer system.

CSBM 1110 **3**
General Ledger for Small Business
This course covers the process of computerizing business records using General Ledger software. The student will be able to produce financial statements using the selected software package.

CSBM 1120 **2**
Bank Reconciliation for Small Business
This course covers the application of computerized bank account/General Ledger reconciliation. The student will be able to prove bank account cash balances using the selected software package.

CSBM 1130 **3**
Accounts Receivable for Small Business
This course covers the process of computerizing business records using Accounts Receivable software. The student will be able to produce customer invoices, statements and reports using the selected software package.

CSBM 1140 **3**
Accounts Payable for Small Business
This course covers the process of computerizing business records using Accounts Payable software. The student will be able to track purchases, pay bills, manage cash flow and print reports using the selected software.

CSBM 1150 **3**
Payroll in Small Business
This course covers the process of computerizing business records using Payroll software. The student will be able to calculate payroll, print payroll checks, track tax liabilities and print reports using the selected software package.

CSBM 1160 **2**
Governmental Payroll Reporting for Small Business
This course covers the fundamentals of employment forms and payroll tax reports that apply to small business. The student will be able to identify and complete forms as required by agencies of Federal and State government.

CSBM 1200 **2**
Introduction to Computers for Small Business
This course covers the basics of microcomputer systems. The student will gain an overview of DOS, Word-Processing, Database file management and Spreadsheets. This will provide a good foundation for further computer training.

CSBM 1202 **1**
Windows Operating Systems in Small Business
This course covers Windows as an operating system. The emphasis is on concepts and commands that will enable the student to better understand and maintain their own microcomputer system.

CSBM 1204 **3**
Word-Processing for Small Business
This course covers the use of word-processing software for business applications. The student will be able to create, edit, manipulate and print documents using selected software.

CSBM 1206 **3**
Spreadsheets for Small Business
This course covers the use of Spreadsheet software for business applications. The student will be able to create, edit, manipulate and print documents using selected software.

CSBM 1208 **3**
Data Base Management for Small Business
This course covers the use of data base management software for business applications. The student will be able to create, edit, manipulate and print documents using selected software.

CSBM 1210 **2**
Desktop Publishing for Small Business
This course covers desktop publishing techniques and applications used to design professional looking documents. The student will be able to create, edit, manipulate and print documents using selected software.

CSBM 1212 **1**
Introduction to Recordkeeping for Small Business
This course introduces the principles and systems of accounting in a small business. Accounting records and reports are critical in management of a small business.

CSBM 1214 **2**
Sales Order Entry for Small Business
This course teaches the proper method of gathering and entering sales data. The student will know the difference between the sale that needs to interact with perpetual inventory, and which do not. The student will learn how sales tax affects all types of sales. Customers will be setup properly to reflect the discount, chart of account number, sales and use taxes, and pricing levels that apply, as well as customer categories for statement purposes.

CSBM 1216 **3**
Inventory Control for Small Business
This course teaches the correct type of inventory method that the company needs to use, FIFO, LIFO, Average Cost, or Standard Method. The student will learn to enter each inventory item, vendor product code, proper department, current cost, selling price categories, as well as the product code. The student will learn how to enter, and process purchase orders. The student will fill out, receive, post, update inventory, and convert purchase orders to accounts payable invoices. The student will learn how to utilize all aspects of manufacturing assemblies, if it applies to their company. The student will understand physical inventory, and maintain the perpetual inventory based on actual amounts, and correct prices for each item.

CSBM 1218 **1**
Payroll Year End Close for Small Business
This course covers the process required to close the Payroll system at the end of a calendar year. The student will be able to reconcile payroll records, print the required tax reports and prepare the system for the next year using the selected software package.

CSBM 1220 **1**
Accounting Year End Close for Small Business
This course covers the process required to close the Accounting system at the end of a fiscal year. The student will be able to reconcile accounting records, post year-end journal entries and prepare the system for the new year using the selected software package.

CSBM 1222 **2**
Network Administration for Small Business
This course introduces the student to network operating procedures. The student will be able to operate their implemented system in a multi-user environment.

CSBM 1224 **1**
Software Upgrade for Small Business
This course covers the process required to evaluate software upgrades. The student will develop a software efficiency model and will evaluate that model against vendor documentation to decide on the proposed upgrade.

CSBM 1226 **1**
Software Analysis for Small Business
This course covers the process required to evaluate software products. The student will develop a software selection model, review appropriate software products and implement a decision process.

CSBM 1228 **1**
Hardware Analysis for Small Business
This course covers the process required to evaluate computer hardware products. The student will develop a hardware selection model, review appropriate hardware products and implement a decision process.

CSBM 1230 **1**
Operations Manual for Small Business
This course covers the process of documenting the system operating procedures implemented during the installation and configuration and data entry phases. The student will assemble all documentation into an operations manual.

CSBM 1232 **3**
Asset Management for Small Business
This course teaches the concept of asset valuation as it relates to actual and depreciated value. The student will learn how to use standard depreciation methods to determine the current months depreciation expense, and correct offsetting accumulated depreciation for each class of fixed assets. The student will enter all company assets in the fixed asset module, when the balance sheet is setup and enter each asset properly as it is purchased during the ongoing business cycle.

CSBM 1234 **3**
Financial Statement Analysis for Small Business
This course teaches the generally accepted business ratios that apply to performance when compared to generally accepted industry standards. The student will learn which ratios apply, how to compute the ratios, and the importance of each ratio. The student will use company data that comes from very accurate accrual financial statement. After computing these ratios, the student will display knowledge of the importance of these trends, as they relate to the success of the
business.

CSBM 1236 **1**
System Evaluation for Small Business
This course covers the process used to evaluate the completed system against the original project plan. The student will develop a document outlining the projects strengths, weakness, needed improvements and a future system growth path.

COMPUTER SCIENCE (CSCI)

CSCI 1100 **2**
Microcomputer Keyboarding
Microcomputer Keyboarding provides basic instruction on the use of the electronic keyboard. Basic touch keying is taught to develop the student¿s skill in rapidly and efficiently entering information into the microcomputer via the keyboard. Includes both alpha and numeric entries. The course also teaches basic document formatting for various styles of personal and business documents such as letters, memorandums and compositions.

CSCI 1102 **3**
Computer Applications I
Computer Applications I introduces the student to basic computer concepts and basic hardware and software. Topics include: word processing, spreadsheets, databases, presentations and graphics, document integration, email best practices, introduction to programming, use of computers in the business world, cybersecurity, and computers and their impact on society as a whole.

CSCI 1110 **2**
Concepts of Coding
Concepts of Coding exposes the student to computer science foundation logic within a friendly, game-like, coding environment, using JavaScript to generate immediate interactive results.

CSCI 1150 **3**
Presentation Development
Presentation Development I presents introductory components of design and development using Microsoft PowerPoint. As well as completion of several projects, quizzes and tests per chapter, students

will have an in-depth knowledge of how to create an advanced presentation for all types of uses. Prerequisite: CSCI 1102.

CSCI 2100 **3**
Computer Applications 2
Computer Applications 2 provides a comprehensive and advanced look at the use of computers in today's society. Emphasis is placed upon the integrated nature of many of today's major applications. Explores the advanced uses of and integration features of word processing documents, database files, spreadsheets and graphic presentations. Prerequisite: CSCI 1102.

CSCI 2105 **3**
Advanced Database with SQL
Advanced Database Concepts with SQL introduces a comprehensive look at SQL (Structured Query Language) which is a programming language that is used by diverse groups of programmers today. Learning of SQL commands and database design and the many uses of SQL. Prerequisites: CSCI 1102 and ACCT 1122.

CSCI 2140 **3**
Electronic Spreadsheets and Graphics
Electronic Spreadsheets and Graphics explores topics of statistical applications, managing database systems, and various graphical capabilities using integrated business simulations. Internal and external program utilities to aid in scanning, importing graphics and combining files will be introduced. Competency in statistical and logical formulas, charting techniques, database manipulation and macro design is expected. Prerequisite: CSCI 1102.

CSCI 2150 **3**
Multimedia for the Web
Multimedia for the Web explores emerging standards and futuristic trends for web site development and maintenance of text, graphics, scanned images, audio, video, dynamic and interactive elements to enhance web pages. Objects of scrolling messages, pop-up windows, applets, reaction to the state of the browser and event/response to user interventions provide dynamic content. Additional actions of the web site hierarchy, security management and maintenance employed through the development of a media-enhanced website. Prerequisite: CSCI 1102.

CSCI 2170 **3**
Python Programming
Python Programming provides an introduction to Python, a programming language that allows programs to be written more quickly and with less conceptual overhead. Topics include strings, variables, selection, iteration, functions, graphics, file processing, lists, dictionaries and recursion. Prerequisite: CSCI 1102

CSCI 2200 **4**
Visual Basic Programming
Visual Basic Programming covers user interface applications through programing in Visual Basic. Topics covered are arithmetic statements, conditional statements, looping structures, data structures, sequential files, random files, design and graphics. Uses DDE, Dynamic Data Exchange, as a way of sharing electronic data between Windows applications and emphasizes problem solving using an OOED, Object-Oriented Event-Driven, approach. Prerequisite: CSCI 1102.

CSCI 2215 **3**
Web Programming I with HTML
Web Programming I with HTML discusses current and futuristic web page technologies and trends, including responsive web design and mobile-first design strategies, incorporates audio and video into realistic case studies and promotes professional webpage development best practices by applying HTML for structure and CSS for style and layout. Prerequisite: CSCI 1102.

CSCI 2240 **4**
Fundamentals of Programming I
Fundamentals of Programming I emphasizes concepts that provide a fundamental background for continued study in the area of computer science. Involves high-level language programming and the use of abstraction in program design. Prerequisite: CSCI 1102.

CSCI 2245 **4**
Fundamentals of Programming II
Fundamentals of Programming II discusses topics including object-oriented programming techniques, essential data structures such as stacks, queues, trees, sorting and searching algorithms using a high-level programming language. Prerequisite: CSCI 2240.

CSCI 2250 **4**
Java Programming
Java Programming provides an overview of the Java programming language and special features of control structures, input/output streams, data structures and abstraction mechanisms. Concepts include creating complete Java classes, derive new classes with effective use of inheritance, and use Java to create applets. Prerequisite: CSCI 2200.

CSCI 2255 **4**
Java Programming II
Java Programming II is an intermediate to advanced study of Java as an object oriented programming language. Concepts include abstract data type with a Class, constructors, overloaded constructors, instance variable, final, superclasses, subclasses, inheritance, String class, constructors and methods, StringBuffer class, constructors and methods, Graphic Objects, Swing Components, Event Handling, Layout Managers, Exception Handling, Multithreading, Files and Streams. Prerequisite: CSCI 2250.

CSCI 2290 **1**
Technology Capstone Seminar
Technology Capstone Seminar studies a variety of current technology dependent business implementations. Examines ethical behavior and consequences related to issues of Internet use, copyright, security, ergonomics, and safety and health. Discusses state-of-the art and futuristic trends within technology development. Prerequisite: CSCI 1102 and either one CSCI application course or one CSCI programming course.

COMPUTER SUPPORT (CST)

CST 1101 **2**
IT Exploration
IT Exploration investigations will gain prerequisite knowledge necessary for a career in the field of information technology. Students will be exposed to opportunities and skills needed for a career in Information Technology. Concepts covered include current business software, internet research, data security concepts, virtualization, computer programming, networking and social media.

CST 1125 **3**
Operating Systems
Operating Systems explores various operating systems including Unix, Mac and the various versions of Microsoft Windows. Specific concepts will include installing, configuring, troubleshooting, and maintaining efficiency of the operating system to meet end-user needs in a production environment.

CST 1135 **3**
LINUX Operating System
LINUX Operating System course is designed to familiarize students with LINUX-based operating systems. The students will use the Linux operating systems for this course. Basic LINUX system concepts, architecture and administration are covered. Students have the opportunity to use fundamental LINUX commands, explore the LINUX file system, use text editors, process and manipulate files, and use the LINUX shell as a programming language..

CST 1182 **1**
Computer Ethics
Computer Ethics discusses the ethical issues relating to computers and technology including social networking, cell phone use, digital copyrights, and legal issues. Current events and topics related to technology and how it has changed our society will be discussed. Policies that address ethical technology issues will be developed.

CST 1190 **4**
Introduction to Networking
Introduction to Networks (ITN) covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP). This course is the 1st course of 3 courses to prepare for CISCO Certified Network Associate (CCNA) certification.

CST 1200 **4**
Introduction to Information Security
Introduction to Information Security introduces the basics of computer security with integrated hands-on labs. The course prepares students to effectively protect information assets by identifying security threats, vulnerabilities, and their countermeasures. Topics include broad range of today's security challenges, common security threats and countermeasures. This course covers most of the objectives in the CompTIA Security+ exam.

CST 1220 **3**
Cybersecurity
Cybersecurity aims to provide students with a comprehensive understanding of the managerial aspects of cybersecurity. It delves into the ethical, legal, and professional dimensions of cybersecurity issues, helping students assess, identify, and proactively manage security risks. The curriculum covers secure network design, disaster recovery planning, the development of cybersecurity policies, and the implementation of secure employment practices. This course is part of a series designed to equip students with the knowledge and skills needed to comprehend, lead, and implement cybersecurity strategies. It also serves as a preparation for various cybersecurity certifications, ensuring students are well-prepared for careers in the field of cybersecurity.

CST 1300 **3**
Computer Forensics
Computer Forensics is an introductory course in digital forensics, which is the study of a computer that has been compromised and the recovery of evidence or information. In this course the student will concentrate on how to recover information from a computer or network after an attack. The student will look at both disaster recovery after a hacker or virus attack and also how to get information from a system that has been used for illicit activities. The student will use a systematic approach to gather information without destroying evidence. Prerequisites: CST 1125.

CST 1400 **3**
Telecommunications I
Telecommunications I will provide students with a broad overview of the telecommunications industry. Including knowledge and understanding of telecommunications history, terminology, tools, cable types, wiring components, basic fiber, coaxial cable, connector types, and basic telecommunications networks. This course prepares the student to be able to identify various equipment and technology in the inside and outside telecommunications plant, including wireless and cellular networks. Some of the latest technologies, including devices associated with the Internet of things are introduced in this course. Students will look at the various careers in telecommunications and future industry trends.

CST 1410 **3**
Broadband Technology
Broadband Technology provides students with basic knowledge and skills. The student develops an understanding the need for transmitting more than one type of signal simultaneously by way of divided channel. Emphasis is placed on the exploration of the technology of voice and data integration, frame relay, Synchronous Optical Network (SONET), Asynchronous Transfer Mode (ATM)/cell relay, Switched Multi-megabit Digital Service (SMDS), Broadband Integrated Services Digital Network (BISDN), Digital Subscriber Line (DSL), and Virtual Private Network (VPN). This course presents and explains the many and varied techniques, solutions, principles, and challenges both carriers and end users utilize, experience, and overcome in implementing broadband and voice-over IP services.

CST 1420 **3**
Convergence Technology
Convergence Technologies is study of telecommunications convergent technologies including telephone, LAN, WAN, wireless, voice, video, and internet protocol. This course Introduces the student to Voice, Video and Integrated data (VVID) over IP networks to provide seamless and secure communications solutions to business and home technology needs. Prerequisite: CST 1190.

CST 1440 **3**
Advanced Telecommunications
Advanced Telecommunications will expand on the theory and topics from the
Telecommunications I class including field experience with central office equipment and cabling. Students will work with broadband communications access systems and software and deploy services over fiber- and copper-based network architectures. In addition, students will become familiar with federal and state regulations and organizations related to the telecommunications industry. Prerequisite: CST 1400.

CST 1500 **3**
Routers and Switches
Routers and Switches focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN. Prerequisite: CST 1190.

CST 2108 **3**
Structured Communication Systems
Structured communication systems (SCS) students will gain practical experience in implementing many concepts in SCS by installing and terminating various cabling types, configuring voice/data and fire/alarm systems, and other equipment. The student will be able to install various SCS; select and operate the appropriate test equipment to perform test procedures perform routine maintenance; perform minor troubleshooting procedures and repairs; identify and describe industry standards, protocols and safety procedures relating to structured communication systems.

CST 2110 **3**
Introduction to Hardware
Introduction to Hardware introduces computer hardware components and explains how they work together to make computers functional. Also includes procedures for disassembling and reassembling different classes of computers, troubleshooting, and repair.

CST 2150 **4**
Advanced Routing Technology
Advanced Routing Technology the third course in the CCNAv7 curriculum describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. Students gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation. Prerequisite: CST 1500.

CST 2224 **3**
Windows Client/Server Administration
Windows Client/Server Administration I will cover the setup and support of the current versions of Windows Server and the desktop client. Students will implement, administer and troubleshoot the Windows network environment. Hands-on, practical experience, and exercises will be incorporated into this course. This course helps students to prepare for Microsoft certification. Prerequisite: CST 1190.

CST 2300 **3**
Windows Client/Server Administration II
Windows Client/Server Administration II is a comprehensive course that focuses on the setup, support, and management of both Windows Server and the Windows desktop client operating systems. It provides students with the knowledge and skills needed to effectively implement,

administer, and troubleshoot Windows network environments. Prerequisite: CST 2224.

CST 2310 **2**
Information Technology Customer Service
Information Technology Customer Service covers the basic skills needed to work effectively with customers face-to-face, online or at a help desk. Basic communication, listening, telephone, writing, and problem-solving skills in the field of technology are developed.

CST 2326 **2**
Web Page Concepts
Web Page Concepts covers topics necessary to maintain and support an existing Web site. Students will be proficient in adding lists, hyperlinks, pictures and task lists to web pages. Publishing a web site will also be covered.

CST 2350 **3**
Virtual Computing
Virtual Computing is a hands-on course that introduces virtual technologies used in an enterprise network environment. This course includes virtualization and storage management concepts using VMWare server virtualization products. Students will install and configure a network in a virtual environment, including applications and desktop virtualization. By learning basic deployments, upgrades, virtual workloads, advanced network architectures, multitenant clouds, and back up and disaster recovery. Students will be prepared to work in a virtual technology environment. Prerequisite: CST 1190.

CST 2400 **3**
IT Project Management
Information Technology Project Management will apply all ten project management knowledge areas and all five process groups to information technology projects. The project management knowledge areas are project integration, scope, time, cost quality, human resource, communication, risk,procurement, and stakeholder Management.The five process groups are initiating, planning, executing,monitoring and controlling, and closing. There will be on emphasis on IT projects and use of software tools. This class will help students prepare for Project Management Institute (PMI) certifications, such as Project Management Professional (PMP®) and Certified Associate in Project Management (CAPM®).

CST 2430 **3**
CyberOps
CyberOps covers knowledge and skills needed to successfully handle the tasks, duties, and responsibilities of an associate-level Cybersecurity Analyst working in a Security Operations Center (SOC). This course aligns with the Cisco Certified CyberOps Associate (CBROPS) certification. Candidates need to pass the 200-201 CBROPS exam to achieve the Cisco Certified CyberOps Associate certification. Taking certification is not mandatory requirement for this course. The CBROPS exam tests a candidate's knowledge and skills related to security concepts, security monitoring, host-based analysis, network intrusion analysis, and security policies and procedures. Prerequisite: CST 1200.

CST 2520 **2**
Ethical Hacking
Ethical Hacking is designed for the student to explore the tools that hackers use to gain access to systems in order to better protect their network environment. It will look at software, hardware and social engineering schemes that hackers use. The course will also cover suggestions for protecting your system from unauthorized access. Legal and ethical hacking issues will be discussed. Prerequisite: CST 1200.

CST 2600 **3**
Fundamentals of Wireless Networking
Fundamentals of Wireless Networking course provides a broad survey of wireless communications including in-depth coverage of protocols, transmission methods, and IEEE wireless standards. Many hands-on exercises are included, which allow students to practice skills as they are learned.

CST 2900 **2**
Computer Technology Capstone
Computer Technology Capstone serves as the Capstone for the Computer Technology Program. Designed to integrate all prior learning and includes studying for and taking the appropriate assessments as determined by the computer division and advisory committees. Students will complete a technology project that can include on the job training, a technology project or technology research. Prerequisite: CST 1500.

DENTAL ASSISTING (DEN)

DEN 1100 **3**
Oral Radiology I
Oral Radiology I introduces the student to fundamental principles of dental radiography. An emphasis is placed on x-ray production, radiation safety, exposure techniques, and evaluation of radiographs. Application of principles and techniques will be performed on lab manikins. Prerequisite: Prerequisites: ENGL 0090 or placement by multiple measures. DEN 1110 may be taken concurrently.

DEN 1105 **3**
Oral Radiology II
Oral Radiology II gives the student the opportunity to develop and apply their skills in exposing and evaluating diagnostic radiographs with minimum exposure to the patient. This course will also cover the laws set forth by the Minnesota Department of Health in relation to exposing radiographs on patients. Prerequisite: DEN 1100.

DEN 1110 **3**
Dental Science
Dental Science describes the anatomy and physiology of the muscular, skeletal, circulatory and nervous systems of the head and neck regions. Specific bones, muscles, arteries, veins and nerves will be identified. The structures, functions and development of the oral cavity will be discussed. The various methods of tooth identification will also be covered. Prerequisites: ENGL 0090 or placement by multiple measures.

DEN 1115 **2**
Dental Health
Dental Health assists the student in making practical applications of the concepts and principles associated with diet and nutrition from the standpoint of general health as well as dental health. The course will also emphasize the nature and causes of disease in the oral cavity and the importance of prevention of this disease with practical application in instructing patients.

DEN 1120 **3**
Chairside Dental Assisting I
Chairside Dental Assisting I assists the student in attaining skills required to be a qualified chairside assistant. It includes instrument identification and transfer, treatment room equipment, charting of the oral structures, utilization of dental practice management software, patient communication, and oral evacuation and isolation. Prerequisites: ENGL 0090 or placement by multiple measures. DEN 1110 may be taken concurrently or with consent of instructor.

DEN 1125 **4**
Chairside Assisting II
Chairside Dental Assisting II is an extension of Chairside Assisting I and will provide working knowledge of general dentistry. This course will also assist the students in understanding the specialties available in dentistry. The student will be taught to identify the materials, instruments and procedures needed in general dentistry and the specialties. The student will also gain skills in assisting the dentist in performing these procedures with minimal discomfort to the patient. The course will assist students through hands on experience in the lab/clinic. Prerequisite: DEN 1110 and DEN 1120.

DEN 1130 **4**
Preclinical Dental Assisting
Preclinical Dental Assisting allows the students to recognize microorganisms, how they live, cause disease, spread disease and how humans protect themselves from microorganisms. Special emphasis will be placed on microorganisms that are most dangerous to health

care workers. The course will also include infection control and hazardous materials principles and regulations. Additionally, the course will assist the student in understanding pharmacology as it relates to dental procedures. The students will also be prepared to recognize and assist with medical emergencies that may occur in the dental office. Prerequisite: ENGL 0090 or placement by multiple measures.

DEN 1135 **2**
Dental Practice Management
Dental Practice Management assists the student in identifying psychological variables that are significant in interacting and communicating with dental patients and coworkers. It will also include information relating to the function of the business office with emphasis on maintaining patient records, bookkeeping, appointment scheduling, filing, and written and oral communication. Both manual and computerized systems will be examined. Prerequisite: ENGL 0090 or placement by multiple measures.

DEN 1140 **3**
Dental Materials
Dental Materials covers materials used in dentistry. It will include information on properties as well as practical lab applications of the materials. Prerequisite: ENGL 0090 or placement by multiple measures.

DEN 1145 **3**
Expanded Functions A
Offers the student experience in mechanical polish, rubber dam application,
topical applications, sealant application, gingival retraction and endodontic expanded functions. (The Minnesota Dental Practice Act has made it legal for licensed dental assistants and students enrolled in accredited dental assisting programs to perform these functions.) The student will gain Preclinical competence in these duties through the use of typodonts and clinical competence through classmates and outside patients. Prerequisite: Satisfactory progress in the dental assisting program, or special permission from the instructor. Student must be certified in CPR before taking this course.

DEN 1150 **3**
Expanded Functions B
Expanded Functions B will offer the student experience in taking impressions and related bite registrations, orthodontic skills, cement removal, temporization, placing and removing periodontal dressings, suture removal, and placement and removal of matrix bands. (The Minnesota Dental Practice Act has made it legal for licensed dental assistants and students enrolled in accredited dental assisting programs to perform these functions.) The student will gain Preclinical competence in these duties through the use of typodonts and clinical competence through classmates and outside patients. Prerequisites: Satisfactory progress in the dental assisting program, or special permission from the instructor. Student must be certified in CPR before taking this course.

DEN 1155 **3**
Extramural Clinical Experience I
Extramural Clinical Experience I is designed to assist the student in developing the skills initiated in the classroom, laboratory and clinic. This is accomplished by working under the supervision of the dentist and his/her staff as well as the dental assisting faculty. Prerequisite: Satisfactory progression in the Dental Assistant Program or permission from instructor.

DEN 1160 **3**
Extramural Clinical Experience II
Extramural Clinical Experience II is designed to assist the student in developing the skills initiated in the classroom, laboratory and clinic. This is accomplished by working under the supervision of the dentist and his/her staff as well as the dental assisting faculty. Prerequisite: Satisfactory progression in the Dental Assistant Program or permission from instructor.

DEN 1180 **1**
Dental Ethics and Jurisprudence
Dental Ethics and Jurisprudence covers the ethical and legal aspects of working in a dental office. With emphasis on the Minnesota Board of Dentistry rules. Prerequisite: Enrolled in the Dental Assistant program or permission from instructor.

DEN 1185 **1**
Nitrous Oxide Inhalation Administration
Nitrous Oxide Inhalation Administration provides the student with skills and knowledge needed for safe and effective administration of nitrous oxide inhalation analgesia and the management of associated complications. The course will provide didactic and supervised clinical experiences as required by the Minnesota Board of Dentistry. During the clinical portion of the course, students will administer and undergo nitrous oxide/oxygen sedation as a patient. The student must be certified in CPR before taking this course. Prerequisite: Student must be certified in CPR before taking this course.

DIESEL TECHNOLOGY (DSL)

DSL 1100 **3**
Diesel Engine Theory
Diesel Engine Theory explains the function of the diesel combustion, chamber designs, valve train operation, rings, cylinders, pistons, crankshafts, connecting rods, and components that compliment basic engine theory.

DSL 1105 **4**
Diesel Engine Lab
Diesel Engine Lab provides the student hands-on shop experiences. The student will disassemble, inspect, evaluate, repair and adjust, and reassemble valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components to make engine operational.

DSL 1110 **2**
Electrical Theory
Electrical Theory discusses circuits, magnetism, wiring diagrams, principles of operation of alternators, regulators, cranking motors, and batteries.

DSL 1115 **2**
Electrical Lab
Electrical Lab Requires the students to disassemble, inspect, evaluate, repair and test electrical systems and components. Concurrent enrollment with DSL 1110.

DSL 1120 **2**
Powertrain Principles
Powertrain Principles explains theory of clutch, pressure plate assembly, standard transmissions, differentials, power take-off, brakes, axles, and components that compliment powertrain operations.

DSL 1125 **3**
Powertrain Lab
Powertrain Lab demonstrates the disassembly, inspection, evaluation, diagnostics, repair and adjustments and reassembly of all components of the powertrain.

DSL 1130 **3**
Hydraulics Theory and Application
Hydraulics Theory and Application discusses the principles and fundamentals of hydraulics. The student will work on various components and systems as related to diesel hydraulics within a laboratory environment.

DSL 1135 **3**
Fuel Injection Principles
Fuel Injection Principles explains and demonstrates diesel engine operation with fuel systems, the basic repair and rebuilding of injectors and timing of the fuel system to the engine.

DSL 1142 **3**
Heating and Air Conditioning Systems
Heating and Air Conditioning Systems analyzes cab heating and ventilation systems used in all types of units used in the industry today as well as servicing and repair of the system for comfort of in-cab climate. The course discusses concerns that need to be addressed when making repairs to the heating and air conditioning system.

DSL 1150 **4**
Internship
Internship provides work experience in a sponsoring automotive, diesel farm equipment or diesel truck service facility. Students will intern for 200 hours over a six week period. The tasks will be consistent with previous required course work.
Prerequisites: DSL 1100 or DSL 1130.

DSL 1170 **3**
Diesel Welding
Diesel Welding explains and demonstrates proper oxy/acetylene cutting, using the torch to heat items, and proper welding techniques.

DSL 2106 **3**
Advanced Powertrain Theory
Advanced Powertrain Theory explains the theory of operation of various power shift transmissions, power flow, and terminologies as related to various manufacturers. This course covers the theory of operation of electro hydraulic systems as well as a wide variety of power train systems from Ag equipment, industrial, and truck when and where available. Prerequisites: DSL 1120 or DSL 1125.

DSL 2111 **4**
Advanced Powertrain Lab
Advanced Powertrain Lab demonstrates disassembly, inspection, evaluation, repair, reassembly, and testing of various power shift transmissions and related components. The student will work in the lab environment to diagnose and repair these various electro hydraulic systems. Prerequisites: DSL 1120 or DSL 1125.

DSL 2131 **3**
Service Department Operations and Procedures
Service Department Operations and Procedures covers the operation of a service department including customer relations and business operations such as reporting forms, work orders, and warranty claims. The student will practice shop management procedures. This course allows students to place advanced theory into practical application in the laboratory setting.

DSL 2136 **5**
Fuel Systems Theory
Fuel Systems Theory studies the theory of all mechanical fuel systems and introduces electronically controlled engines and fuel systems. Prerequisite: DSL 1135.

DSL 2137 **5**
Fuel Systems Lab
Fuel Systems Lab applies theory in the laboratory environment. Students will disassemble, inspect, evaluate, reassemble and calibrate a mechanical pump. Prerequisite: DSL 1135.

DSL 2145 **4**
Advanced Diesel
Advanced Diesel reviews the theory and operation of specialty areas of diesel engine rebuilding. This course explains different tier levels for emission-controlled engines. Prerequisites: DSL 1100 and DSL 1110.

DSL 2150 **5**
Advanced Engine Lab
Advanced Engine Lab provides hands-on shop experiences. Students will practice reconditioning of the larger and electronically controlled engines. Prerequisites: DSL 1100 and DSL 1110.

DSL 2155 **3**
Diesel Engine Control Systems
Diesel Engine Control Systems explains the operation of all the different governors and electronically controlled engines.

DSL 2175 **2**
Diesel Equipment Preventative Maintenance
Diesel Equipment Preventative Maintenance describes preventative maintenance on heavy duty diesel equipment, as well as strategies for continued best performance and safe operation of the equipment.

DSL 2180 **2**
Computerized Diagnostic Systems
Computerized Diagnostic Systems describes and demonstrates basic Windows operations needed to operate computerized diagnostic systems, submit online warranty claims, create invoices, business cards, engine reports, and record and present images necessary for warranty reimbursement.

DSL 2190 **2**
GPS Systems Operation
GPS Systems Operation explains the operation, installation, adjustment, and repair of the GPS in accordance to the system principles.

ECONOMICS (ECON)

ECON 1101 **3**
Introduction to Economics Meets Goal Area: 05
Introduction to Economics explores the fundamentals of Macroeconomics and Microeconomics and the process of economic analysis. No credit if ECON 2201 or ECON 2202 has been previously completed.

ECON 2201 **3**
Principles of Macroeconomics Meets Goal Area: 05
Principles of Macroeconomics studies the overall performance of the United States economy and comparative economic systems from the dimensions of full employment, price stability, and economic growth.

ECON 2202 **3**
Principles of Microeconomics Meets Goal Area: 05
Principles of Microeconomics analyzes the economic decision-making process of the individual firm. Explores the microeconomic concepts of pricing and resource allocation within different market structures.

EARLY CHILDHOOD (EDUC)

EDUC 1100 **3**
Introduction to Education
Introduction to Education introduces students to early childhood, elementary and secondary education. Examines career opportunities, requirements, regulations, and professional ethics. The study of historical and social foundations of education, as well as schools in a diverse society will be covered. Includes 15 hours of field experience. Prerequisite: ENGL 0090 or placement by multiple measures and a Department of Human Services background study will be conducted.

EDUC 1102 **2**
Technology: Classroom Applications and Portfolio Development
Technology: Classroom Applications and Portfolio Development introduces the educational uses of technology by exploring computer applications as tools for their own learning as well as the ethics of electronic communications. A Teacher Education portfolio (online) will be developed. Prerequisite: ENGL 0090 or placement by multiple measures.

EDUC 1131 **3**
Autism Spectrum Disorders
Autism Spectrum Disorders focuses on the theory, research, and intervention in Autism Spectrum Disorders (ASD). The history of diagnosis and intervention of ASDs and how it is viewed today is a strong focus of this course. In addition, neurological, psychological, and education theories of ASD; current approaches to intervention; and educational classification are introduced.

EDUC 1132 **2**
Behavior Management
Behavior Management introduces students to the basic principles of behavior management as it relates to behavioral excesses and deficits, maladaptive behavior, and special needs in children. The focus will be on understanding and intervening with behavioral excesses and deficits in the educational environment.

EDUC 1200 **3**
Introduction to Early Childhood
Introduction to Early Childhood Education provides an overview of the early childhood field, including theories, philosophies, qualities, and regulations. It examines the roles and responsibilities of professionals in a variety of career settings. Reflective practices will address effective communication, collaborative team dynamics, professional behaviors, and informed decision making as they relate to the field of early childhood education. The course work includes lab and 15 hours of lab/ field experience. Prerequisite: STSK 0090 or placement by multiple measures.

EDUC 1230 **3**
Diverse Children and Family Relations
Diverse Children and Family Relations encompasses the relationship between the caregiver, families, and colleagues and explores strategies for relationship building. Understanding biases, addressing barriers for diverse students, utilizing appropriate curriculum, and engaging in various learning approaches are important elements of working with diverse children and families. Communication strategies are also reviewed. The course work includes lab and 15 hours of lab / field experience. Prerequisite: STSK 0090 or placement by multiple measures.

EDUC 1240 **3**
Family and Community Relations
Family and Community Relations will guide students in learning how to develop positive relationships with families of varied racial, economic, and cultural backgrounds. Student will examine the importance of the family/early childhood staff relationship and study methods of effectively communicating. Community organizations and networks which support families will be studied.

EDUC 1262 **3**
Creative Activities and Environment
Creative Activities will have students exploring varied means of developing children's creativity in art, music, and drama. Students learn to design age-appropriate activities with paints, paper, sculpture, wood, chalk, recyclables, song dance, instruments, puppets, and related materials. The course work includes lab and field experience.

EDUC 1265 **3**
Child Growth and Development
Child Growth and Development provides an overview of typical and atypical child development from prenatal to school age including physical, social, emotional, and cognitive development. It integrates theory with appropriate practice in a variety of early childhood settings. Students learn how to design and use developmentally appropriate language and cognitive-growth activities, including how to encourage curiosity, exploration and problem-solving; to develop sensory and story-telling skills; how to teach concepts such as time, shape and quantity, how to provide opportunities to organize and group materials; and to verbalize their experiences. Lab requirement of 15 hours. Minnesota Department of Human Services background check required. Prerequisite: STSK 0090 or placement by multiple measures.

EDUC 1267 **3**
Health, Wellness, and Nutrition
Health, Wellness, and Nutrition examines how to provide a healthy and safe environment and provide proper nutrition to young children. It sets high-quality expectations regarding policies, procedures, healthful environments, sanitation standards, and preventative care. The emphasis is on application of theory in a variety of early childhood settings. Students will learn how to promote good health, physical fitness and nutrition and to provide a safe environment for children. Topics include motor development, methods of teaching health and safety to children, recognizing symptoms of abuse, neglect, and common children's illnesses. This course also examines the responsibilities of a mandated reporter of child abuse and neglect. Includes 15 hours of lab. Prerequisite: STSK 0090 or placement by multiple measures.

EDUC 1269 **3**
Behavior Guidance
Behavior Guidance provides an exploration of the physical and social environments that promote learning and development for young children. It includes child guidance techniques for individual and group situations. Students learn how to provide a secure, supportive environment for communicating both thoughts and feelings, and for fostering developmentally appropriate behavior. Emphasis is given to providing nurturing and developing realistic expectations for children's behavior, setting limits and developing self-control. Emphasis is place on problem-prevention strategies, positive child guidance methods, and strategies to help children develop self-control. Emphasis is on the application of guidance methods in a variety of early childhood settings. 15 hours of lab.

EDUC 1290 **3**
Oberservation and Assessment
Observation and Assessment focuses on the implementation of observation and assessment strategies to document children's development, growth, play and learning, and to plan and individualize curriculum and teaching practices. Students will learn professional communication strategies and how to collaborate with families and professionals to promote children's successes. Students will explore recording strategies, rating systems, multiple assessment tools, and portfolios. Focus is on increasing objectivity in observing and interpreting children's behavior, using assessment ethically, observing developmental characteristics, and increasing the awareness of patterns of children's behavior. Students will have a 15 hour lab/observation requirement with this course. Prerequisites: EDUC 1200 and EDUC 1265.

EDUC 1340 **4**
Planning and Implementing with Lab
Planning and Implementing with Lab examines the role of the teacher in early childhood settings for children ages 3-7. It applies knowledge of child development as it relates to individual children, communities, curriculum, and communication activities. The course work includes lab and field experience.

EDUC 1510 **2-4**
Internship
Internship provides an opportunity to apply knowledge and skills in an early childhood or childcare setting. Students will observe and assess children's development and behavior, implement a variety of learning experiences that are developmentally appropriate, and maintain professional relationships.

EDUC 2200 **4**
Infant and Toddler Development and Learning Experiences
Infant and Toddler Development and Learning Experiences provides an overview of infant and toddler development (ages birth to three years). Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective observations/assessments, and planning and teaching strategies. The course work includes lab and field experience.

EDUC 2300 **3**
Childhood Poverty: Exploring the Issues
Childhood Poverty: Exploring the Issues will increase understanding of the impact poverty has on children and families, examine unique inherent issues, and promote respect for family strengths. Emphasis is on providing tools to work productively and in partnership with children and families.

EDUC 2510 **3**
Child Growth and Development
Child Growth and Development is an introduction to child growth and development from conception through adolescence with a concentration on the physical, cognitive, and social-emotional domains of development. Emphasis areas of the course include: historical foundations and theories associated with the study of child development, the research process, the implications of teaching and learning, student diversity and pertinent topics associated with the possible effects of environment and behavior on prenatal development through adolescence.

EDUC 2560 **3**
Introduction to Language and Literacy
Language and Literacy Learning Experiences provides an overview of language and literacy learning experiences in either childcare or other early childhood settings. Students integrate knowledge of child development, learning environments, and teaching methods to promote whole language, conversation, literature, literacy, and bilingualism.

EDUC 2900 **3**
Introduction to Special Education
Meets Goal Areas: 05, 07
Introduction to Special Education will teach students to recognize, understand, and guide children with special needs. Specific disabilities introduced in this course include Developmental Delay, Developmental Cognitive Delay, Autism, Physical and Sensory Disabilities, Learning and Behavior Disabilities. Introduction to special education services including: Federal mandates (Individuals with Disabilities Education Act), and State Due Process mandates, early intervention, parent involvement, DSM-V diagnostic criteria, assessment methods and instructional methods such as Response to Intervention (RTI). One credit field experience (15 hours) is included. Pre-requisites: STSK 0090, STSK 0095 or STSK 1100 or placement by multiple measures.

ELECTRICAL CORE (ELCO)

ELCO 1100 **3**
Electrical Circuits Fundamentals
Electrical Circuits Fundamentals describes the basic concepts of electricity from DC to AC. Calculate Ohm's law formulas. Describe series circuits, parallel circuits, capacitance circuits, and inductive circuits. Calculate series circuits, parallel circuits, capacitance circuits, and inductive circuits. Prerequisite: MATH 0092 or placement by multiple measures.

ELCO 1105 **3**
Electrical Circuits Fundamentals Lab
Electrical Circuits Fundamentals Lab performs practical problems on both DC and AC circuits in the lab. Calculate series circuits, parallel circuits, capacitance circuits, and inductive circuits. Perform basic meter testing on circuits. Prerequisite: MATH 0092 or placement by multiple measures.

ELCO 1110 **3**
AC/DC I
AC/DC I introduces students to electrical theory and practical experiences starting with DC electric circuits, electrical safety practices, and familiarization with training equipment using Ohm's law and power. Prerequisite: MATH 0092 or placement by multiple measures.

ELCO 1120 **3**
AC/DC II
AC/DC II introduces students to the basic concepts of AC circuits, safety practices, basic studies of resistive, inductive, and capacitive circuits, circuit analyzing, oscilloscope operations, capacitance, capacitive reactance, inductance, inductive reactance, RC and RL time constants, Transformers, and three-phase circuits. Prerequisite: ELCO 1110.

ELECTRICIAN (ELEC)

ELEC 1200 **5**
Residential Wiring I
Residential Wiring I describes electrical safety, general safety, the use and care of hand tools, the specialty tools, and equipment used for residential wiring. Apply National Electrical Codes related to residential wiring. Discuss wiring methods for residential wiring.

ELEC 1205 **2**
National Electric Code I
National Electric Code I provides insight into an understanding of many of the technical rules of the National Electrical Code (NEC). Topics included are Minnesota licensing laws, definitions, requirements and calculations for electrical installations, grounding conductors, branch circuits, feeders and services. Other topics also included are overcurrent protection, grounding and bonding, wiring methods, temporary wiring and conductors for general wiring.

ELEC 1210 **5**
Residential and Farm Wiring II
Residential & Farm Wiring introduces blueprint reading for residential wiring. Describe electrical safety and general safety. Discusses National Electrical Code articles on branch circuits, feeders, grounding, services, and overcurrent protection for residential and farm wiring. Prerequisite: ELEC 1200.

ELEC 1215 **2**
National Electric Code II
National Electrical Code II(NEC) covers requirements for cabling, conduit, raceways, wireways, boxes gutters, switches and panelboards. Also included are the requirements for equipment such as cords, cables, fixtures and fixture wire, appliances, fixed space heating, motors and motor circuits, refrigeration equipment and transformers. Prerequisite: ELEC 1205.

ELEC 1220 **4**
Conduit Installation
Conduit Installation describes the raceway types used to conceal wiring, learn to bend, install, support, calculate raceway size and number of wires permitted in a conduit, hand and hydraulic Benders are introduced, and identify fittings and other materials used in installing a Raceway system. Prerequisite: ELEC 1200.

ELEC 1225 **3**
Electric Motors
Electric Motors describes the difference in alternating current (AC) and direct current (DC) motors, generators, and alternators. Compute motor calculations. Determine the load characteristics and connections of AC and DC motors, generators, and alternators. ELCO 1100 or ELCO 1110.

ELEC 1230 **1**
Safety Principles and OSHA
Safety Principles and OSHA describe the various safety and laboratory practices that are common to the electrical trade and present information on how to avoid unsafe practices.

ELEC 1235 **2**
Applied Electrical Calculations
Applied Electrical Calculations performs basic math necessary for solving electrical circuits. Read word problems and decide what they are asking for. Calculate math problems. Calculate Ohm's law formulas.

ELEC 1240 **5**
Commercial Wiring
Commercial Wiring investigates the material and design aspects of commercial wiring. Read commercial blueprints. Perform voltage-drop calculations, motor calculations and service installations. Apply requirements of the N.E.C. as it relates to commercial wiring. Prerequisite: ELEC 1200.

ELEC 2200 **2**
Low Voltage
Low Voltage investigates low voltage circuits and controls along with data, phone, CATV, fire alarm and home security methods and materials. This course will also cover the rules and regulations of installation and termination of communication wire and components. Prerequisite: ELCO 1100 or ELCO 1110.

ELEC 2205 **4**
Electric Motor Controls I
Motor Controls I instructs students in the use of electrical tools, instruments, safety equipment, electrical symbols, line diagrams, AC manual contactors and motor starters, AC magnetic contactors and motor starters, time delay logic and control devices. Prerequisite: ELCO 1100 or ELCO 1110.

ELEC 2210 **2**
National Electric Code III
National Electric Code III explains the importance of safe, efficient and well-designed systems for industrial, commercial, and residential locations. The course discusses material, methods, and components used in designing electrical systems. Prerequisite: ELEC 1205.

ELEC 2220 **3**
Industrial Wiring
Industrial Wiring covers components for industrial electrical installations and operations. Students will learn to design and calculate electrical loads for an industrial application. Prerequisite: ELEC 1220.

ELEC 2225 **4**
Electric Motor Controls II
Electric Motor Controls II describes electromechanical and solid state relays, photoelectric controls, proximity controls, reduced voltage starting, accelerating and decelerating methods and preventive maintenance. Prerequisite: ELEC 2205.

ELEC 2230 **4**
Programmable Logic Controllers
Programmable Logic Controllers describes how PLC's work and provide practical information about installing, programming and maintaining a PLC system. Students will be given a wide range of generic programming assignments and exercises for practice with the PLC. Prerequisite: ELEC 2205.

ELEC 2235 **2**
National Electric Code IV
National Electric Code IV examines the National Electrical Code Requirements for Commercial and Industrial installations. Determine grounding and bonding requirements. Examine definitions and installation concerns in hazardous locations. Prerequisite: ELEC 1205.

ELEC 2240 **3**
Transformers
Transformers describes basic transformer theory, construction, installation and troubleshooting of single phase and three phase transformers. Examine types of transformers including isolation, autotransformer and instrumentation transformers. Prerequisites: ELCO 1100 or ELCO 1110.

ELEC 2250 **3**
Heating and Air Conditioning Controls
Heating and Air Conditioning Controls introduces basic heating and cooling system installation, control and troubleshooting.

ELEC 2265 **3**
Alternative Energies
Alternative Energies introduces traditional and alternative energy sources. This class will explore the basic principles of traditional energy with an emphasis on alternative energy. Students will develop a basic understanding of solar, biofuels, wind, geothermal and hydro energy sources.

POWERLINE TECHNOLOGY (ELPL)

ELPL 1100 **3**
Pole Climbing and Equipment Operation
Pole Climbing and Equipment Operation covers climbing techniques, with fall arrest. Students will also learn installation and removal of pole hardware, setup and safe operation of digger derricks, bucket trucks, hydraulic systems, and truck driving operations. Also included in the course is the operation of elbow and squirt booms, safety checkout and use of the lifting jib.

ELPL 1102 **4**
Pole Climbing and Equipment Operations II
Pole Climbing and Equipment Operations II covers two of the techniques used by powerline workers to elevate themselves to a safe working position for the installation, maintenance or removal of electrical equipment on powerlines. The techniques are pole climbing and safe operations of digger and basket trucks. This course is a continuation of Pole Climbing and Equipment Operations. Prerequisite: ELPL 1100.

ELPL 1106 **4**
Electrical Distribution of Powerlines I
Electrical Distribution of Powerlines I covers the care and maintenance of personal tools, nomenclature and use of company tools, nomenclature and installation of pole line hardware, setting and aligning poles, stringing single phase and three phase wires, installation of armor rods, hand ties, and preform ties. The course also covers the change-out of single phase and three phase transformers, overhead secondaries and offers instruction in elementary knots and the use of different types of slings.

ELPL 1116 **4**
Electrical Distribution of Powerlines II
Electrical Distribution of Powerlines II covers the application, care, and use of rubber goods, insulated coverup use, and the use of bucket trucks. This course also covers pole top insulator change outs, pole replacements, and conductor transfers all simulating the line being 'Hot'. Prerequisite: ELPL 1106.

ELPL 1121 **4**
Electrical Distribution of Powerlines III
Electrical Distribution of Powerlines II covers the function, operation, and types of fuses, circuit breakers, oil circuit reclosures and sectionalizers. Working with and around electrical equipment, and apparatus in substations will also be covered. Students will learn about the characteristics of transient voltages, types of distribution arrestors and safety. The course will also cover building overhead lines, stringing and sagging conductors, and ties and tying. Students will build OCR banks, capacitor banks, and three-phase transformer banks, work with underground distribution lines, connect sectional cabinets and pad-mounted transformers, and loop-feed URD lines. Tree trimming, and pole-top and bucket rescue will also be discussed. Prerequisite: ELPL 1116.

ELECTRIC UTILITY SUBSTATION (ELUT)

ELUT 1101 **3**
Electrical and Rigging Safety
Electrical Rigging and Safety includes State and Federal OSHA Rules and National Electric Safety Work Rules, regarding safety in the Electrical Field. Emphasis is on personal protective equipment, personal, and company rules of safety. Instruction in elementary knots and the use of different types of slings. Outdoor lab includes pole top rescue, the safe practices of grounding, and the rigging and lowering of a crossarm.

ELUT 1105 **3**
Blueprint, Schematics, and Transit
Blueprint, Schematics and Transit covers the use and interpretation of blueprints, schematic diagrams, and the symbols and abbreviations used in them. This course also covers the fundamentals for set-up, operation and use of a transit mounted on a tripod or other base.

ELUT 1110 **3**
Transformer Banking I
Transformer Banking I covers the construction, purpose, uses, and calculations for distribution transformers. Emphasis will be on installation of single or three-phase banking practices that are used in the private and public sector of the electric utility industry.

ELUT 1115 **3**
Generation, Transmission and Distribution
Generation, Transmission and Distribution is designed to simulate the Power Industry. Through the use of laboratory projects, the student will receive background in understanding the concepts of generation, transmission and distribution of electric power.

ELUT 1120 **2**
Specification, Testing, and Maintenance
Specification, Testing, and Maintenance covers the procedures, specifications of testing methods, and maintenance used throughout the electrical industry for new and refurnished equipment.

ELUT 2100 **3**
Electrical Metering
Electrical Metering covers single-phase metering principles, meter construction, component parts and installation and testing of single-phase electric watt-hour meters. This course also includes the use of a meter test bench, test standards and an electric counter.

ELUT 2110 **2**
Transformer Banking II
Transformer Banking II is a continuation of Transformer Banking I. This course will look into single-phase power banks and auto transformers used in the transmission and distribution of small and large blocks of power. Prerequisite: ELUT 1110.

ELUT 2116 **2**
Reclosures and Protective Equipment
Reclosures and Protective Equipment covers reclosure testing, inspection and causes of malfunction. Fuse construction and coordination. Coordination scheme that provides system protection along with lightning arrestors, fault indicators and relays.

ELUT 2121 **2**
Protective Relays
Protective Relays is designed to give a broad understanding of simple relays that are used in the protection of high voltage lines and substations. Emphasis is on understanding design, construction, and application, performing testing, calibrating, cleaning and adjusting relays. The following relays will be studied if time allows: overcurrent induction disc, thermal overcurrent, induction disc voltage, over/under voltage, voltage restraint, percentage differential, and transformer differential relays.

ELUT 2126 **2**
Regulators and Capacitors
Regulators and Capacitors covers the methods used in producing a reliable power source by controlling voltage loss and power factor through the use of capacitors and/or regulators.

WIND ENERGY TECHNOLOGY (ELWT)

ELWT 1100 **3**
Wind Energy Fundamentals
Wind Energy Fundamentals introduces the student to turbine designs, types of development, current status of, and the evolution of current models and sizes offered by existing companies, the operational experience, track record, number of turbines in operation that will be evaluated, and discuss the economic, environmental, and political issues according with American Wind Energy Association (AWEA).

ELWT 1101 **2**
Introduction to Wind Energy
Introduction to Wind Energy discusses the economic, environmental and political issues in accordance with the OSHA, and other local and zoning codes. The course also identifies the technical rules of the National Electrical Code and explains the licensing laws, definitions, and requirements and calculations for electrical installations, grounding conductors, branch circuits, feeders, and services.

ELWT 1102 **1**
Hydraulics Lab
Hydraulics Lab utilizes equipment and applies advanced fundamentals of hydraulic valves. The course will also cover advanced circuits and schematics. Prerequisites: DSL 1130 or MECH 1103.

ELWT 1110 **3**
Mechanical Systems
Mechanical Systems provides an understanding of wind turbine drive systems (gearboxes) and associated components, introduced two different types of gearboxes and associated mechanical systems and subsystems of today's wind turbines, focus on lubrication, oil analysis, construction and preventative maintenance techniques for modern wind turbine drive systems.

ELWT 1170 **3**
Wind Energy OSHA Standards & Climb Lab
Wind Energy OSHA Standards & Climb Lab introduces students to turbine designs, types models and sizes offered by existing companies. Basic safety principles in the wind energy industry and a brief overview of the Occupational Safety and Health Administration (OSHA) pertaining to the climbing of wind turbines will be covered. Students will learn how to properly inspect equipment before climbing and properly store climbing equipment after each use.

ELWT 2110 **3**
Turbine Siting and Construction
Turbine Siting and Construction introduces students to the various aspects of wind turbine in wind farm siting, construction, and commissioning. Students will be engaged in observation and discussions on the use of heavy equipment such as cranes, rigging, tower assembly, and a wind tower production facility being brought on-line.

EMERGENCY MEDICAL SERVICES (EMS)

EMS 1101 **3**
Introduction to Emergency Medical Technician
Introduction to Emergency Medical Technician develops the initial foundation of emergency care and scene safety. Prepares individuals to evaluate and identify emergencies, employ their knowledge, psychomotor skills and application of those skills to provide basic life support as an Emergency Medical Technician. Includes initial patient assessment and comprehensive prehospital care as outlined by the most current educational standards identified by the Minnesota EMS Regulatory Board and the National Registry of EMT's.

EMS 1102 **5**
Emergency Medical Technician Completion/Bridge
Emergency Medical Technician Completion/Bridge introduces the necessary didactic and cognitive skills to provide basic life support care as an EMT. The EMT Completion/Bridge meets the requirements outlined by the educational standards of the Minnesota EMS Regulatory Board and the National Registry of Emergency Medical Technicians for the direct employment as an Emergency Medical Technician with a basic transport service, emergency room and emergency services within law enforcement or fire departments. Students must have current American Heart Association Basic Life Support Healthcare Provider CPR card meeting the current American Heart Association standards to register for this course. Prerequisite: EMS 1101 or currently certified as an Emergency Medical Responder.

EMS 1110 **2**
Emergency Medical Responder
Emergency Medical Responder introduces the initial foundation of emergency care and scene safety. Prepares individuals to evaluate and identify emergencies, employ their knowledge, psychomotor skills and application of those skills to provide basic life support as an Emergency Medical Responder. Includes initial patient assessment and comprehensive prehospital care as outlined by the most current educational standards identified by the Minnesota EMS Regulatory Board, the American Heart Association's BLS CPR for Healthcare Provider standards and DOT standards.

EMS 1112 **1**
AHA CPR Healthcare Provider, AED First Aid Certification

AHA CPR Healthcare Provider, AED, First Aid introduces skills necessary to become certified in CPR, First Aid and AED aligned with the current American Heart Association Guidelines for the CPR Healthcare Provider Certification and Certification in Automated External Defibrillation and First Aid. The student will be able to properly and safety assess a patient, recognize signs and symptoms and administer the appropriate treatment.

EMS 2101 **2**
Emergency Medical Technician Refresher
Emergency Medical Technician Refresher provides refresher training for out-of-hospital emergency medical care and transportation for critical and emergent patients for certified Emergency Medical Technicians (EMT) to maintain certification as outlined by the medical standards of the Minnesota EMS Regulatory Board and National Registry of Emergency Medical Technicians. Students must have a current Emergency Medical Technician certification or Emergency Medical Technician Certification that has not been expired by more than 12 months prior to course registration .

EMS 2103 **1**
Emergency Medical Responder Refresher
Emergency Medical Responder Refresher provides refresher training in emergency medical care for certified Emergency Medical Responder to maintain certification as outlined by the educational standards of the Minnesota EMS Regulatory Board. As the first person at the emergency scene, the first responder must be completely knowledgeable about basic principles of emergency medical care; and must know what should, as well as what should not be done. Students must hold a current Emergency Medical Responder certification of Emergency Medical Responder Certification that has not been expired by more than 12 months prior to course registration.

ENGLISH (ENGL)

ENGL 0090 **2**
Essentials of Writing I: Effective Sentences and Paragraphs
Essentials of Writing I: Effective Sentences and Paragraphs introduces students to the essentials of the English language: parts of speech, phrases, clauses, types of sentences, common sentence errors, punctuation, capitalization, and spelling. Students write sentences and paragraphs to demonstrate an understanding of contextual grammar and paragraph writing. Prerequisite: Placement by multiple measures.

ENGL 0095 **2**
Essentials of Writing II: Effective Essays
Essentials of Writing II: Effective Essays introduces outlining, thesis statements, introductions and conclusions, transitions, direct and indirect discourse, awareness of audience, and levels of formality. Students write brief essays to demonstrate an understanding of these basic skills. Prerequisite: ENGL 0090 or placement by multiple measures.

ENGL 1101 **3**
Composition I Meets Goal Area: 01
Composition I reviews and reinforces basic essay writing principles. Emphasis is on rhetorical modes of development and writing as process. Assignments include several essays and a short research paper. Prerequisite: ENGL 0095 or placement by multiple measures.

ENGL 1102 **3**
Composition II Meets Goal Areas: 01, 06
Composition II emphasizes research, information literacy and synthesis, critical thinking, and style development. The topics covered include research, information analysis and synthesis, advanced mechanics and editing, and argumentative writing. Writing assignments include several essays, syntheses, annotated bibliographies, and a research paper. Prerequisite: ENGL 1101.

ENGL 1103 **1**
Research Papers
Research Papers reviews and reinforces principles of writing research papers. Emphasis is on process, analysis, and formatting. Assignments include an academic research paper. Prerequisite: Instructor permission is required.

ENGL 1105 **3**
Introduction to Literature Meets Goal Areas: 06, 07
Introduction to Literature examines the elements, forms, and content of fiction, drama, and poetry. The course aims to introduce students to various genres of literature, with an emphasis on reading strategies and reading analysis. Assignments include readings, literary reflections, and a research-based literary presentation. Prerequisites: STSK 0095 or placement by multiple measures.

ENGL 1120 **3**
Introduction to Women's Literature
Meets Goal Areas: 06, 07
Introduction to Women's Literature introduces students to women's literature and women's contributions to the literary canon. The course will examine women's roles and identities within the context of history and society as reflected by women in their literature as well as the consumption of and reactions to their works. Readings will be selected from a variety of genres - including poetry, fiction and nonfiction - and from a variety of women with diverse backgrounds - including ethnicity, class, and sexual orientation - throughout different historical periods, with an emphasis on American and British writers. This course will approach texts through gender, cultural, and historical strategies. Assignments include several brief literary analyses as well as a final research project. Prerequisite: ENGL 0095 or placement by multiple measures.

ENGL 1130 **3**
Introduction to Creative Writing Meets Goal Area: 06
Introduction to Creative Writing reviews the skills and gives students the tools to write poems and stories. Students will analyze and evaluate published writing as well as the writing of their peers. The textbook and lectures will provide strategies for writing and editing poems and stories. The class is conducted in an informal, workshop atmosphere. Students will write a final narrative for publication in Minnesota West's creative journal. Prerequisite: STSK 0095 or placement by multiple measures.

ENGL 1143 **2**
Writing and Reading Fiction Meets Goal Area: 06
Writing and Reading Fiction provides instruction and experience in composing and editing fiction. Covers elements of fiction writing through reading of published and unpublished fiction. Prerequisite: ENGL 1101.

ENGL 2120 **3**
Children's Literature Meets Goal Areas: 06, 07
Children's Literature analyzes and surveys the history of Children's Literature while teaching methods of evaluation and organization criteria for Children's Literature (early literacy, primary, and intermediate children's books). Prerequisite: ENGL 0095, ENGL 1101 or placement by multiple measures.

ENGL 2201 **3**
Early American Literature Meets Goal Areas: 06, 07
Early American Literature introduces prominent American writers and influential literary works that have shaped American cultural identity from the colonial period to 1865. Early American Literature takes a broad view of the traditional canon to include writers and works from many areas of America's past. Prerequisite: Instructors recommend that students complete ENGL 1105 or an advanced high school literature class before registering for this course.

ENGL 2202 **3**
Modern American Literature Meets Goal Areas: 06, 07
Modern American Literature introduces prominent American writers and influential literary works that have shaped American cultural identity from 1865 through the present. Modern American Literature takes a broad view of the traditional canon to include writers and works from many areas of America's past. Prerequisite: Instructors recommend that students complete ENGL 1105 or an advanced high school literature class before registering for this course.

ENGL 2203 **3**
Midwest Literature Meets Goal Area: 06
Midwest Literature introduces students to the rich and diverse body of Midwest literature through the exploration of poetry, fiction, nonfiction, and drama. The course will also address various cultural, historical, and geographical matters relating to Midwest literature, and the significance of Midwest literature, both in particular and general terms. Prerequisite: STSK 0095 or placement by multiple measures.

ENGL 2221 **3**
Early British Literature Meets Goal Areas: 06, 07
Early British Literature studies the principal British writers, their literary forms, and significant currents of thought. This course provides both an introduction to early British Literature and a background that will be useful in the study of other literature and cultural history. Includes works from Beowulf through 1800. Prerequisite: Instructors recommend that students complete ENGL 1105 or an advanced high school literature class before registering for this course.

ENGL 2222 **3**
Modern British Literature Meets Goal Areas: 06, 07
Modern British Literature studies the principal British writers, their literary forms, and significant currents of thought. Modern British Literature provides both the experience of British literary works and background information that will be useful in the study of other literature and cultural history. Includes works from the Romantics (1800) through the present. Prerequisite: Instructors recommend that students complete ENGL 1105 or an advanced high school literature class before registering for this course.

ENGL 2231 **2**
Classical Mythology Meets Goal Area: 06
Classical Mythology introduces students to Greek mythology through classical texts and contemporary criticism. In addition to studying the myths themselves, lectures will focus on the functions of myths and the continuing importance of Greek mythology.

ENGL 2235 **0**
Special Topics in Literature Meets Goal Area: 06
Introduces students to specialized areas of literature. Topics may include literature associated with specific regions, historical periods, subcultures, economic groups, business, or social movements. The class may be retaken for credit if the topic varies.

ENGL 2276 **3**
Composition: Technical Writing Meets Goal Area: 01
Composition: Technical Writing provides instruction and experience in composition and editing various types of professional and technical writing. Assignments include a research paper. This course is an alternative for ENGL 1102 in the Minnesota Transfer Curriculum. Prerequisite: ENGL 1101.

ENGINEERING (ENGR)

ENGR 1101 **1**
Introduction to Engineering
Introduction to Engineering introduces the study of engineering. It cover the keys to success in engineering study, a description of the engineering profession, academic success strategies, and an orientation to the engineering education process.

ENGR 1110 **3**
Auto CAD Level I
Introduces the student to computer-aided drafting and design utilizing the current version of AutoCAD. The AutoCAD topics covered in this Level 1 course include: an introduction to AutoCAD features, starting and setting up drawings, ergonomics, point coordinate entry methods, creation of basic 2D drawing objects, layer management, linetypes and colors, selection sets, object snap modes, AutoSnap, polar tracking, object snap tracking, construction techniques, creating and managing text objects, editing geometry, display control and drawing inquiry methods. Students completing this course successfully will have the basic AutoCAD knowledge needed to begin a career in Computer-Aided Drafting and Design. This basic knowledge is needed prior to specializing in a certain area of drafting such as mechanical, civil, electrical, architectural or structural.

ENGR 2214 **3**
Engineering Mechanics - Statics
Includes vector resultants of force systems in two and three dimensions, equilibrium of forces, analysis of forces acting on structural and machine elements, friction, moments of inertia, and virtual work. Prerequisites: PHYS 2121 and MATH 1122 (or concurrent).

ENGR 2215 **3**
Engineering Mechanics-Dynamics
Includes vectorial kinematics and kinetics, absolute and relative motion, force-mass acceleration relations, potential and kinetic energy, work, power, impulse, momentum, conservation of energy and momentum. Application to particles, particle systems, and rigid bodies will be studied. Prerequisite: ENGR 2214.

ENGR 2240 **3**
Circuit Analysis I
Introduces electrical circuit theory, circuit variables, circuit elements, simple resistive circuits, Ohm's and Kirchoff's Laws, mesh and node circuit analysis, the use of circuit theorems, and the operational amplifier. Also emphasized are the topics of inductance, capacitance, mutual inductance, response of first-order RC and RL circuits and natural step responses to RLC circuits. The computer program PSPICE will be used for circuit simulation. Prerequisites: PHYS 2122 and MATH 1122.

ENGR 2241 **1**
Circuit Analysis I - Lab
Provides the laboratory to accompany Circuits Analysis I. Circuit analysis concepts are reinforced by laboratory experiments in which the theories are verified. Taught concurrently with Circuit Analysis I: ENGR 2240.

ENGR 2250 **3**
Circuit Analysis II
Continues Circuit Analysis I to include special topics in circuit analysis to include sinusoidal analysis, phasors, sinusoidal steady-state response, average power, root-mean square values, polyphase power, complex frequency, frequency response, and two-port networks. Prerequisites: ENGR 2240, ENGR 2241 and MATH 2205.

ENGR 2251 **1**
Circuit Analysis II - Lab
Provides the laboratory to accompany Circuits Analysis II. Circuit analysis concepts are reinforced by laboratory experiments in which the theories are verified. Taught concurrently with Circuit Analysis II: ENGR 2250.

ENGLISH AS A SECOND LANGUAGE (ESL)

ESL 90 **3**
Listening and Speaking
Listening and Speaking provides the ESL student the opportunity to improve listening and speaking skills. The focus is on notetaking, weekly speaking and listening exercises, increasing vocabulary, and comprehension.

ESL 91 **3**
Reading and Writing
Reading and Writing provides the ESL student the opportunity to improve reading and writing skills. Emphasis is on word recognition, vocabulary, pronunciation, and comprehension. Emphasis in writing is on grammar, spelling and structure.

For course descriptions on Farm Business Management courses (FBMA & FBMT) go to: Course Outlines and search under FBMA and FBMT

GEOGRAPHY (GEOG)

GEOG 1100 **3**
Introduction to Geography Meets Goal Areas: 05, 08
Introduction to Geography introduces the fundamental themes and concepts in Geography. Emphasis will be given to Cartography, Meteorology, Geomorphology, Cultural Geography, and the interrelationships between humans and their environment. Prerequisite: STSK 0090 or placement by multiple measures.

GEOG 1101 **4**
Introduction to Physical Geography Meets Goal Area: 10
Introduction to Physical Geography studies the geographical distribution of the natural environment, with an emphasis on spatial data analysis, weather, climate, geological formations and the hydrosphere, to examine the relationship of people to their physical surroundings. Prerequisite: STSK 0095 or placement by multiple measures.

GEOG 1200 **3**
Introduction to Human Geography Meets Goal Area: 05,08
Introduction to Human Geography is an overview of contemporary human geography. Students will be introduced to a spatial understanding of the distribution of population, migration, culture, language, religion, and cities. Prerequisites: STSK 0090 or placement by multiple measures.

GEOG 2140 **3**
Natural Disasters and Meteorology Meets Goal Area: 10
Natural Disasters and Meteorology studies atmospheric processes and the human and economic consequences of natural disasters due to extreme weather events such as tornadoes, hurricanes, flooding, wildfires, and other natural phenomena. Disaster analysis, storm spotter training, and preparedness and mitigation will also be addressed. Prerequisite: STSK 0095 or placement by multiple measures.

GENERAL STUDIES (GSCL, GSCM, GSSS))

GSCL 1105 **1**
Job Seeking Skills
Job Seeking Skills introduces career planning techniques and explains how to apply them in an employment search.

HEALTH CARE (HC)

HC 1100 **1**
Nutrition
Nutrition explores the basic concepts of normal nutrition are presented with an emphasis on wellness and maintenance of a balanced state of health. These concepts are applied to human needs throughout the lifespan cycle. The emphasis is on the comprehension and application of these concepts in health care settings.

HC 1120 **3**
Introduction to Healthcare Careers
Introduction to Healthcare Careers prepares students for rapidly changing healthcare careers. Students will explore a wide variety of career options and develop an awareness of workplace climate and culture. Students will participate in in-depth study of medical/health science careers, career planning, employability skills, basic terminology, ethics, wellness, common diseases, and safety.

HC 1125 **3**
Trained Medication Aide
Trained Medication Aide includes the study of legal requirements of medications and medication administration, general information on medications, terminology, abbreviations, applicable terminology, and an overview of body systems and drug classifications related to medication administration while utilizing designated reference sources. Medications will be administered in the classroom lab via the oral, ocular, rectal, and topical routes. The students will study the ten major body systems and how they are involved in the pharmacology of drug use. Upon completion of the course, and meeting federal and state guidelines, the student will receive a Trained Medication Aide Certificate. Pre-requisite: HC 1175 or Minnesota State approved Nursing Assistant Course. Must provide proof of completion.

HC 1151 **3**
Body Structure & Function
Body Structure & Function introduces the study of human anatomy and physiology. A study of body organization, chemistry, cells and tissues leads into exploring the normal structure and function of each body system. Emphasis is also placed on terminology and abbreviations.

HC 1175 **3**
Nursing Assistant
Nursing Assistant introduces concepts of basic human needs and teaches basic nursing skills that will be demonstrated and practiced in the laboratory setting. This course focuses on personal care, nutrition/feeding, elimination, clean and safe environment, communication, vital signs, body mechanics, death and dying, and principles related to long term care. Upon successful completion of the classroom/lab studies, the student will participate in a clinical experience caring for the geriatric client. Background study checks will be conducted. Successful students will be eligible to take the Nurse Aide Competency Examination for certification and placement on the Minnesota Nursing Assistant Registry. This course meets application requirements for MN West nursing program.

HC 1180 **2**
Medical Terminology in Healthcare
Medical Terminology in Healthcare provides students working knowledge of medical terminology and application of the terminology within the health professions.

HC 1290 **1**
Health Care & Society
Health Care & Society provides a basis for intellectual, practical and ethical decision making. The fundamentals of bioethics, ethical codes and legislation affecting a health professional practice, patient protection issues, professional boundaries, and legal basics are explored. Cultural and spiritual perspectives are discussed.

HC 2120 **3**
Disease Conditions
Disease Conditions introduces basic principles of disease and includes the study of disease by body system. The signs and symptoms, etiology, diagnosis, and treatment of each disease is explored; and prevention of disease is emphasized. Medical terminology and anatomy/physiology knowledge acquired in previous courses is applied. Prerequisite: HC 1151.

HEALTH INFORMATION TECHNOLOGY (HIMC)

HIMC 1100 **3**
CPT/HCPCS Coding
CPT/HCPCS Coding is designed to prepare students to assign CPT (Current Procedural Terminology) coding system to code various body systems, disease processes and treatments in the outpatient settings, using exercises and medical records to develop skill and accuracy. Students will use the principles of coding to ensure proficiency in coding. Students will understand and use the current regulations and established guidelines in code assignment. Billing and insurance procedures as well as chargemaster description and maintenance will be addressed. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

HIMC 1110 **3**
Diagnosis Coding
Diagnosis Coding will introduce the student to the ICD-10-CM classification system with an emphasis on the correct process of utilizing the alphabetic index and tabular list for code assignment. The focus will be on rules, conventions, instructions of ICD-10-CM as well as the chapter specific (pregnancy, injury, etc.) including criteria for assignment of principal and additional diagnoses in various patient settings will be addressed. The impact of proper code assignment, MS-DRGs and reimbursement will also be covered. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

HIMC 1120 **3**
Procedure Coding
Procedure Coding will demonstrate the application of principles, guidelines, and conventions of procedure coding by using the current International Classification of Diseases (ICD), Procedure Classification System (PCS) coding manual. Coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes to procedures. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process. Prerequisites: HC 1151, HC 1180 or BIOL 2245.

HIMC 1130 **3**
Advanced Coding
Advanced Coding demonstrates the application, analysis and evaluation of coding principles, guidelines, and conventions from CPT, HCPCS, and ICD coding manuals. Students will use the principles of ICD-10-CM, ICD-10-PCS, and CPT/HCPCS coding to ensure proficiency in coding using actual patient charts and advanced concepts of coding. Students will apply current regulations and established guidelines in coding assignment. Students will use AHIMA Find-A-Code Encoder to apply codes and adhere to guidelines and conventions. Prerequisite(s): HIMC 1100, HIMC 1110 and HIMC 1120.

HIMC 1140 **3**
Introduction to Health Records & Delivery Systems
Introduction to Health Records & Delivery Systems provides a study that charts a path for success in the allied health field. The course focuses on how electronic health records (EHRs) and a philosophy of patient-centric care are currently impacting health information professionals in their everyday careers as well as the patients they serve. In a health information system that is becoming increasingly integrated and cross-disciplinary, health information students need to be equipped with the problem-solving skills to make important connections and to face the challenges and opportunities they will see in their careers.

HIMC 1150 **3**
Introduction to Medical Coding, Billing and Insurance
Introduction to Medical Coding, Billing and Insurance provides a basic introduction to ICD-10-CM, ICD-10-PCS and CPT/HCPCS coding and coding compliance, a study of the various health insurance plans, reimbursement methodologies, and compliance strategies. Students will

adhere to current regulations and established guidelines in code assignment. Students who master the material will gain sufficient understanding of coding for entry-level medical insurance specialist positions.

HIMC 1165 **2**
Health Information Law
Health Information Law explains, demonstrates, and analyzes health care legal topics. Focus will be on privacy and security along with the legal and ethical principles, standards, policies, and regulations associated with health information management.

HIMC 2100 **3**
Computerized Health Information
Computerized Health Information introduces students to computer use in health care and health information management. Basic concepts of electronic health information systems will be introduced and applied, including data collection, storage, retrieval, and other applications.

HIMC 2110 **3**
Leadership & Management in Health Information
Leadership & Management in Health Information introduces the basic principles and concepts of leadership, communication and relationships that are needed in a work environment and healthcare facility specifically. Budgeting, staffing and performance management are also studied.

HIMC 2115 **1**
Computerized Health Information II
Computerized Health Information II introduces health information practices in the application of concepts, methods and structures related to the health information management work setting. Various applications used in health information will be studied. Students will select and prepare for their professional practice experience. Including background studies and health history forms. Prerequisite: HIMC 2110.

HIMC 2120 **3**
Quality Management in Health Information
Quality Management in Health Information explores the theory, practice and management of quality performance and improvement through examination of peer review processes, applying quality tools, data analysis, and reporting systems.

HIMC 2125 **1**
Medical Coding Board Review
Board review is an online course for the certified coding specialist (CCS) and the certified professional coder (CPC) national examinations by AHIMA and AAPC. This course offers you a study plan, review of all major examination topics, mock pretest and post-test, guidance to good computer test-taking skills. Prerequisite(s): HIMC 1100, HIMC 1110, HIMC 1120 and instructor permission.

HIMC 2130 **2**
Virtual Professional Virtual Professional Practice Experience in Health Infor
Virtual Professional Practice Experience in Health Information Technology merges academic theory with hands-on, practical scenarios. This Virtual Practicum Course is crafted to connect theoretical concepts from prior health information technology classes with real-world applications, giving students a distinctive chance to participate in virtual work experiences. The Health Information Technology virtual practicum course offers a flexible environment where students can apply and refine their skills within a structured, yet vibrant virtual space. Prerequisite: HIMC 2115.

HIMC 2135 **1**
HIT Seminar
Health Information Technology Seminar prepares students to take the Registered Health Information Technician (RHIT) exam; through preparing a study plan, review of exam content and domains, mock exams, and assisting in completing exam application.

HIMC 2140 **2**
Statistics in Health Information
Statistics in Health Information evaluates and manages medical data for statistical purposes including collecting, analyzing, and interpreting numerical data and presenting data to personnel in healthcare services and facilities.

HISTORY (HIST)

HIST 1101 **4**
United States History to 1865 Meets Goal Areas: 05, 07
United States History to 1865 surveys US history from early human habitation of the North American continent through the Civil War (1865), including political, economic, social and cultural developments. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1102 **4**
United States History since 1865 Meets Goal Areas: 05, 07
United States History since 1865 surveys US history from the Civil War (1865) to the present, including political, economic, social and cultural developments. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1105 **3**
Minnesota History Meets Goal Areas: 05, 07
Minnesota History surveys the state's history beginning with the earliest human habitation to the present, including political, economic, social, and cultural developments. Major emphasis is on the nineteenth and twentieth centuries. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1111 **3**
Early Western Civilization Meets Goal Areas: 06, 08
Early Western Civilization surveys Western history from ancient times to the 1500s, encompassing political, economic, socio-cultural, intellectual and artistic developments. Examines the history of ancient civilizations including Egypt & Mesopotamia, Greek & Roman, Byzantine Empire, Islamic Civilization, and Medieval Europe. The course includes a consideration of the emergence of the major Western religions of Judaism, Christianity and Islam. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1112 **3**
Modern Western Civilization Meets Goal Areas: 06, 08
Modern Western Civilization surveys Western history from the 1500s to the present, encompassing political, economic, socio-cultural, intellectual and artistic developments. Topics covered include the Scientific Revolution, the Enlightenment, Colonialism, the Industrial Revolution, World Wars I & II, and the Cold War. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1121 **3**
Early World History Meets Goal Areas: 05, 08
Early World History is a global and cross-cultural study of the early period of world history. Empires and regions examined include ancient India, China, Greece, Egypt, Rome, the Americas, Africa, Japan and Europe. The course includes the emergence of major world religions and considers their influence in world cultures and civilizations. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 1122 **3**
Modern World History Meets Goal Areas: 05, 08
Modern World History is a global and cross-cultural study of the modern period of world history from 1500 to the present. Topics include imperialism and colonialism, the interactions of nations and peoples, industrialization, modernization, global conflicts, and modern political, socio-cultural, and economic developments. The course concludes with a consideration of contemporary global conditions. Prerequisite: STSK 0095 or placement by multiple measures.

HIST 2202 **3**
Modern American Wars Meets Goal Areas: 05, 09
Modern American Wars begins with an examination of the Spanish-American War, then examines World Wars I & II, the causes and peace settlements of each, and the significance of each conflict. The course moves on to a study of the Cold War and its associated conflicts, concluding with an analysis of recent developments including the War on Terror. The course addresses social, political, and economic questions from an ethical perspective. Prerequisite: STSK 0095 or placement by Multiple Measures.

HEALTH (HLTH)

HLTH 1101 **3**
Personal Wellness
Personal Wellness focuses on individual wellness from a holistic perspective. Surveys personal health concerns within each of the five human health dimensions - physical, social, intellectual, emotional, and spiritual. Emphasizes the knowledge, attitudes, and behaviors of a positive lifestyle. Designed for anyone interested in enhancing his/her well-being. Often a required component of programs in health, human service, and education careers. Prerequisite: STSK 0090 or placement by multiple measures.

HLTH 1110 **3**
Dimensions of Community/Public Health
Dimensions of Community/Public Health introduces the field of community/public health. Acquaints students with the variety of health agencies in the public and private sectors and surveys current social health issues. Examines public health policy, health care systems in the US and abroad, epidemiology and disease prevention in communities, and health promotion in various settings/populations. A foundation course for careers in allied health, community health, and other service professions. Prerequisite: STSK 0095 or placement by multiple measures.

HLTH 1130 **3**
Stress Management and Relaxation
Stress Management and Relaxation provides a foundation for understanding the role of stress in the modern human condition. Mind/Body/Spirit interrelationships and the emerging sciences of psychoneuroimmunology and subtle anatomy will be introduced. Experiential exploration of numerous coping skills and relaxation techniques is emphasized. Prerequisite: STSK 0095 or placement by multiple measures.

HLTH 2210 **3**
Human Sexuality
Human Sexuality explores the diverse physical, social and psychological aspects of human sexuality at all life stages within the framework of solid scientific research and critical thinking. Topics include sexual anatomy and physiology, attraction and intimate relationships, gender issues, forms of healthy sexual expression and behaviors, fertility management, STIs, sexual dysfunction, atypical sexual behaviors, sexual coercion, and commercial sex. Opportunities to clarify personal values and decisions regarding one's sexual health are woven throughout. Prerequisite: STSK 0095 or placement by multiple measures.

HLTH 2220 **3**
Drugs, Society, and the Individual
Explores relationships between drugs, sociocultural influences, and individual attitudes and behaviors. With an emphasis on psychoactive chemicals, this course surveys the physiological effects and psychosocial impact of a wide array of drugs. Investigates patterns of drug use; drug laws, consequences of drug abuse; addiction, intervention, treatment, recovery, and prevention strategies from both individual and social perspectives. Prerequisite: College level reading or placement by multiple measures.

HLTH 2240 **3**
Basic Nutrition
Basic Nutrition introduces the study of food and human dietary patterns. Examines sources of nutrients, how they are processed in the body, body composition, current dietary guidelines and nutritional issues, the impact of socio-cultural factors on diet, and the impact of dietary choices on health. Prerequisite: STSK 0095 or placement by multiple measures.

HUMAN SERVICES (HSER)

HSER 2297 **6**
Human Services Generalist Internship
Human Services Generalist Internship provides supervised work experience for students in the generalist track in one or more human services agencies. Students and supervisors design the experiences to meet students' educational and career goals. Prerequisites: Internships are available only to students who have an overall GPA of 2.00 ("C"), a 2.50 in career courses, have completed the outlined courses in their first three terms, have completed a four-hour seminar in the fall semester of the second year; have completed a formal application process and have been approved following an interview with the Human Services Coordinator.

HSER 2298 **8**
Human Services Child Development Internship
Human Services Child Development Internship provides supervised work experience with children in settings such as day care, preschool, and elementary schools. Students and supervisors design the experiences to meet students' educational and career goals. Prerequisites: Internships are available only to students who have an overall GPA of 2.00 ("C"), a 2.50 in career courses, have completed the outlined courses in their first three terms, have completed a four-hour seminar in the fall semester of the second year; have completed a formal application process and have been approved following an interview with the Human Services Coordinator.

HUMANITIES (HUM)

HUM 2121 **4**
The Turbulent Sixties Meets Goal Areas: 06, 07
The Turbulent Sixties presents an interdisciplinary (history, literature, film) and topical survey of the 1960's. Topics will include the civil rights movement, war on poverty, Vietnam, feminism, the environmental movement and the counterculture. The course also counts as a Human Diversity course. Prerequisite: ENGL 1101.

HUM 2201 **2**
The Many Faces of Mexico Meets Goal Areas: 06, 07
The Many Faces of Mexico explores the cultural, historical and social realities which together form contemporary Mexico. By studying about the economic and political situation, one can understand why many Mexicans are seeking work and moving their families north. Special attention is given to the impact on Minnesota communities and the challenge to welcome and to meet the needs of the growing Latino population.

HUM 2230 **3**
World Religions Meets Goal Areas: 06, 08
World Religions examines the historical development, fundamental doctrines and beliefs, practices, institutions and cultural expressions of the world's major religions. The course also explores some of the essential differences and similarities which exist among these religious traditions and points to the uniqueness of each of them.

INDIGENOUS STUDIES (INDS)

INDS 1101 **3**
Introduction to Indigenous Nations and Dakota Studies
Meets Goal Areas: 05, 07
Introduction to Indigenous Nations and Dakota Studies (INDS) focuses on understanding the "pan-Indian" view of Indigenous people in a contemporary setting. The course materials will focus on the socio-political history of interactions between Indigenous people and settlers coming to the United States. Aspects of Indigenous epistemology, culture, and their complexities interacting in a modern-day world will be explored. There will be an emphasis on the Oceti Sakowin (7 Council Fires)-(Eastern Dakota/Western Dakota/Lakota), highlighting their struggle and resistance throughout history. Sociopolitical ideas of settler colonialism, decolonization, and tribal sovereignty will be key frames of understanding throughout the course work. The coursework will benefit both Indigenous and non-Indigenous students alike -- unpacking generalizations, assumptions, and stereotypes that are continually perpetuated in mainstream society as well as providing a detailed history of the land in Mni Sota Makoce (Minnesota). Prerequisite: ENGL 0090 or placement by multiple measures.

FOR ADDITIONAL COURSE DESCRIPTIONS ON LAMB MANAGEMENT COURSES (LWMP) GO TO: COURSE OUTLINES AND SEARCH UNDER LWMP

LWMP 1202 **2**
Equipment and Facilities
This course will cover planning for sheep facilities; barn design; lot layout and sheep feeding equipment. Students will become aware of housing and feeding requirements and how to effectively plan for them.

LWMP 1300 **2**
Introduction to Sheep Health
Familiarizes students with management practices beneficial to healthy animal production. Sheep health is fundamental to a successful sheep enterprise. Sheep health will be studied in the following categories - Animal Behavior, Handling, Housing and Nutrition; Quality Assurance and Bio-Security; Young Lamb Health Concerns; Metabolic Disorders; Abortion Management; Lameness Issues; Fertility Concerns in Rams; Sheep Eye Health Concerns; and Other General Health Issues.

LWMP 1502 **1**
Ewe Ration Formulation
Provides awareness of the methods used to balance rations to meet the sheep nutrient needs for each specific stage of production. The course will also cover least cost ration balancing.

LWMP 1701 **2**
Wool Characteristics and Properties
This course will provide an in-depth look at the biological development of wool fiber and the properties that make it a unique clothing fiber. In addition this course will study the factors that determine the value of wool, how these can be improved and methods to measure these qualities.

MATH (MATH)

MATH 0092 **2**
Essentials of Mathematics-Pre Algebra
Essentials of Mathematics - Pre-Algebra assists students in developing a thorough understanding of basic mathematics. Intuition and sound mathematical techniques are used to analyze and solve problems in fractions, decimals, ratios, proportions and percentages. Metric geometry is also covered and an introduction to algebra. This is NOT considered a transfer course. Prerequisite: Placement using multiple measures.

MATH 0098 **2**
Higher Algebra I - Beginning Algebra
Teaches basic algebraic concepts and skills including real number properties, algebraic expressions, solving equations and inequalities, graphs of linear equations, exponents and scientific notation. This course is not considered a transfer course. Prerequisite: MATH 0092 or placement by multiple measures.

MATH 0099 **2**
Higher Algebra II
Teaches polynomials, operations with polynomials, factoring polynomials, polynomials with several variables, rational expressions, graphs, functions and their applications. This course is not considered a transfer course. Prerequisite: High school algebra (one year), MATH 0098, or placement by multiple measures.

MATH 0100 **2**
Higher Algebra III
Teaches systems of equations in two and three variables, compound inequalities, absolute value equations and inequalities, radical expressions and equations, quadratic equations, exponential and logarithmic functions. Prerequisite: MATH 0099 or placement by multiple measures.

MATH 0111 **2**
Co-requisite with College Algebra
Co-requisite with College Algebra Supports students who qualify with additional review, just-in-time learning, deeper conceptual development, repetition over time, and learning skills and habits required to be successful with the corresponding college level MATH 1111 College Algebra Math course taken concurrently. Prerequisite: ACT Math score of 19 or placement by multiple measures.

MATH 0115 **2**
Co-requisite with Intro to Probability and Statistics
Co-requisite with Intro to Probability and Statistics supports students who qualify with additional review, just-in-time learning, deeper conceptual development, repetition over time, and learning skills and habits required to be successful with the corresponding college level Math 1105 Intro to Probability and Statistics course taken concurrently. Prerequisite: ACT Math score of 15 or placement by multiple measures.

MATH 0117 **2**
Co-requisite with Concepts in Math
Co-requisite with Concepts in Math supports students who qualify with additional review, just-in-time learning, deeper conceptual development, repetition over time, and learning skills and habits required to be successful with the corresponding college level Math 1107 Concepts in Math course taken concurrently. Prerequisite: ACT Math score of 11 or placement by multiple measures.

MATH 1100 **3**
Integrated Math
Focuses on using math concepts to solve applied problems in technology. These concepts include topics in algebra, geometry, and trigonometry. Prerequisite: MATH 0092 or placement by multiple measures.

MATH 1105 **4**
Introduction to Probability and Statistics
Meets Goal Area: 04
Introduction to Probability and Statistics introduces the measures of central tendency, measures of dispersion, frequency distributions, probability, sampling distributions and the central limit theorem, testing of hypotheses, analysis of variance, linear regression and correlation analysis. Prerequisite: MATH 1107 or NURS 1130 or Co-Req MATH 0115 or placement by multiple measures.

MATH 1107 **3**
Concepts in Math Meets Goal Area: 04
Concepts in Math covers topics from various areas of mathematics showing the scope and power of mathematics and emphasizing the mathematical method. This course is for students who are not mathematics majors and who wish to acquire a basic understanding of mathematics and apply it to a specific area of study. Prerequisites: Co-Req Math 0117 or placement by multiple measures.

MATH 1109 **3**
Math Skills for Elementary Education
Math Skills for Elementary Education develops mathematical skills required for Elementary Education majors by pairing various skills with a beginning discussion of pedagogy and best-practices in Elementary Math Education. This course fulfills some of the Minnesota Professional Educators Licensing and Standards Board competencies required for Elementary teachers. Prerequisites: Two years of high school Algebra, Math 0092, or placement by multiple measures.

MATH 1111 **3**
College Algebra Meets Goal Area: 04
College Algebra reviews the fundamental operations of higher algebra integrated with a functions approach. Studies polynomial, exponential, and logarithmic functions, graphs and transformations, systems of equalities and inequalities, matrices and determinants, problem solving applications and data modeling techniques. Prerequisite: MATH 1107, MATH 1105, Co-requisite MATH 0111 or placement by multiple measures.

MATH 1113 **4**
Pre-Calculus Meets Goal Area: 04
Precalculus reviews the concepts of college algebra and then extends those ideas to trigonometry and analytic geometry. Exponential, logarithmic, and polynomial functions are emphasized in the review. The course explores rectangular coordinates and angles, solutions of right triangles, unit circles, radian measure, trigonometric functions and their inverses, trigonometric graphs, trigonometric equations and identities, complex numbers, conic sections, and other analytic geometry topics such as polar coordinates, parametric equations, sums and geometric series, and vectors. Prerequisite: MATH 1111 or placement by multiple measures.

MATH 1118 **4**
Applied Calculus Meets Goal Area: 04
Provides a tour of differential and integral calculus in one variable. Emphasizes formulas and their interpretation and use in applications. Students in programs that call for short calculus, brief calculus or applied calculus should take this course. Engineering students should take the Calculus sequence: MATH 1121-1122. Students concerned about which courses to take should contact the instructor. Prerequisite: MATH 1113 or MATH 1111 or placement by multiple measures.

MATH 1121 **4**
Calculus I Meets Goal Area: 04
Calculus I introduces the basic ideas of differential and integral calculus. Topics include: limits and continuity, differentiation of functions, applications of derivatives, definite and indefinite integrals, numerical integration, and applications of definite integrals. Prerequisite: MATH 1113 or placement by multiple measures.

MATH 1122 **4**
Calculus II Meets Goal Area: 04
Calculus II calculates areas using definite integrals and continues to expand Calculus I concepts. Other topics include the calculus of transcendental functions, techniques of integration, applications of integration, differential equations and modeling, and infinite sequences and series, Taylor polynomials, and the Calculus of polar and parametric equations. Prerequisite: MATH 1121.

MATH 2201 **4**
Calculus III Meets Goal Area: 04
Calculus III extends applications of derivatives and integrals to three-dimensions, this course continues Calculus II. Topics include vectors, vector-valued functions with applications, functions of two or more variables, partial derivatives, multiple integrals, and vector analysis topics including line and surface integrals, Green's Theorem, the Divergence Theorem, and Stoke's Theorem. Prerequisite: MATH 1122.

MATH 2206 **4**
Ordinary Differential Equations
Ordinary Differential Equations presents the theory, computations and applications of first and second order ordinary differential equations and two-dimensional systems. Prerequisite: MATH 1122.

MATH 2210 **4**
Linear Algebra Meets Goal Area: 04
Linear Algebra introduces systems of matrix linear equations, linear transformations, matrix operations, vector spaces, eigenvalues and eigenvectors, orthogonality, and applications. Prerequisite: Math 1122.

MEDICAL LABORATORY TECHNICIAN (MDLT)

MDLT 1100 **3**
Introduction to Laboratory Sciences
Introduction to Laboratory Sciences course is an orientation course designed to familiarize the student with a career in the medical laboratory field, medical terminology, certification process, professional organizations, and ethical/legal issues. The course has heavy emphasis on phlebotomy skills. The course also introduces the students to laboratory information system used in the laboratory.

MDLT 1105 **3**
Medical Microbiology I
Medical Microbiology I course introduces the student to the microbial world. The course covers the study of the materials and methods used for identification of pathogenic organisms and the study of these in relation to their disease processes in humans. The course will present microbiology within an epidemiologic, diagnostic, and clinical framework. In the laboratory, the student will learn such techniques as gram staining, microscopy, culturing, identification of microorganisms and anti-microbial susceptibility testing.

MDLT 1110 **2**
Laboratory Math Calculations
Laboratory Math Calculations course begins with a review of basic math, algebra and the metric system. The student will then learn basic math as it applies to the laboratory sciences.

MDLT 1115 **3**
Biological Fluids
Biological Fluids introduces the student to the practical aspects of renal physiology and the theory of urine chemical, physical and microscopic tests. In addition, analysis of other body fluids (fecal specimens, cerebral spinal fluid, seminal fluid, amniotic fluid, synovial fluid) are reviewed in the lecture portion of the class. In the laboratory, the student will perform physical, chemical and microscopic analysis on urine specimens, and analysis of other body fluids. Prerequisite: Microscopic usage is helpful.

MDLT 1120 **3**
Immunology
Immunology introduces the student to a wide array of clinical laboratory techniques that are based on the concepts studied in immunology. The topics range from the very simple to the very complex procedures that are used in all areas of the clinical laboratory. Prerequisite: MDLT 1100.

MDLT 1125 **3**
Clinical Chemistry I
Clinical Chemistry I consists of the students being introduced to methods used in quantitative analysis of chemical constituents of blood and other body fluids. Quality control is emphasized as integral to all aspects of laboratory medicine. Specific testing procedures for various organ systems are discussed and practiced. Prerequisite: MDLT 1100.

MDLT 1130 **3**
Hematology I
Hematology I is the first part of a two-part course in Hematology, the study of diseases in the blood. Students will begin with a basic study of the blood cells called hematopoiesis. Students will study the disease processes that occur in the white blood cells of the blood with emphasis on benign white blood cell disorders, leukemia, and lymphoma. Prerequisite: MDLT 1100.

MDLT 2101 **3**
Medical Microbiology II
Medical Microbiology II is the continuation of Medical Microbiology I. This course focuses on the study and identification of bacteria, parasites, viruses, and fungi. The student will be performing basic laboratory procedures in bacteria and fungi identification. The student will also be reviewing laboratory procedures that was taught in Microbiology I. Prerequisite: MDLT 1105.

MDLT 2106 **3**
Immunohematology
Immunohematology (Bloodbanking) teaches the theory of red cell antigen-antibody interactions as it relates to blood grouping and typing, antibody detection compatibility testing. Blood donor screening component preparation are also discussed. In laboratory the student will perform basic blood banking procedures. Accuracy in procedure interpretation is emphasized. Prerequisites: MDLT 1100 and MDLT 1120.

MDLT 2110 **2**
Clinical Chemistry II
Clinical Chemistry II is a continuation of MDLT 1125 Clinical Chemistry I. Students continue to develop skills in the performance of the chemical analysis of blood. Lectures continue to correlate laboratory results with clinical findings. Content of the course includes renal, acid/base balance, electrolytes, endocrinology & thyroid, gastric & pancreatic function, toxicology, and hormones. Prerequisites: MDLT 1100, MDLT 1125 and CHEM 1150.

MDLT 2120 **3**
Hematology II
Hematology II is a continuation of MDLT 1130 (Hematology I). Student will study the disease processes that occur in the red blood cells of the blood with emphasis on anemias. This course also covers the theory and testing of the coagulation aspects of the blood. Prerequisite: MDLT 1100 and MDLT 1130.

MDLT 2200 **4**
Phlebotomy Externship
Phlebotomy Technician Externship consists of 120 contact hours of supervised practice of phlebotomy at an affiliated hospital, private

laboratory or clinic. Learning activities are specifically planned and implemented at the clinical affiliated site. Student clinical experience is standardized using a checklist. Fine motor skills and some mobility are required for students to successfully perform in most clinical facilities: drawing patient's blood in the inpatient and outpatient settings, processing specimens including operating mechanical and computerized equipment and performing clerical duties. Good communication skills are critical in dealing with patients, clients, physicians, nurses and other health care workers. The student will make arrangements with the Medical Laboratory Technician Program Director regarding their externship time and site Prerequisite: MDLT 1100 and MEDA 1135.

MDLT 2310 **2**
Clinicals: Urinalysis/Biological Fluids
Clinicals: Urinalysis and Biological Fluids consists of the student continuing their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians. Prerequisites: MDLT 2106 and MDLT 2120.

MDLT 2320 **4**
Clinicals: Hematology and Hemostasis
Clinicals: Hematology and hemostasis consists of the student continuing their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians. Prerequisites: MDLT 2106 and MDLT 2120.

MDLT 2330 **2**
Clinicals: Medical Microbiology
Medical Microbiology Clinical course consists of the student continuing their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians.

MDLT 2340 **3**
Clinical: Chemistry and Immunology
Clinical Chemistry and Immunology course consists of the student continuing their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians. Prerequisites: MDLT 2106 and MDLT 2120.

MDLT 2350 **4**
Clinicals: Immunohematology
Clinicals: Immunohematology consists of the student continuing their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians. Prerequisites: MDLT 2106 and MDLT 2120.

MDLT 2360 **1**
Capstone
Capstone course will focus on further development of critical thinking and problem solving skills in all of the laboratory disciplines, as well as integration of laboratory analyses, interpretation and application. Activities include discussions, case study, interactive activities and assignments, focused reviews, and examinations. Mastery of content will be assessed through a comprehensive examination. Under the direction of faculty, students prepare a written case study and present their findings to laboratory professionals and classmates. Student will also develop resume and cover letter and discuss job interviewing.

MDLT 2370 **2**
Clinicals: SIM Medical Microbiology
SIM (Strategic Instruction Model) Microbiology Lab is a review and enhancement of medical microbiology. This is a two-week course held in the student MLT laboratory. This experience enables the students to refine microbiology laboratory techniques and apply knowledge to work in the microbiology department at an entry-level position. In addition, the student will continue their education in Microbiology in MDLT 2330 Clinical: Medical Microbiology. Prerequisites: MDLT 2106, MDLT 2110, MDLT 2120, and MDLT 2101.

MECHATRONICS (MECH)

MECH 1102 **2**
Mechanical Power Transmission
Mechanical Power Transmission introduces students to fundamental industrial mechanical concepts, principles, and equipment.

MECH 1103 **3**
Basic Hydraulics
Basic Hydraulics introduces the students to basic concepts, formulas and applications of hydraulic system components. Studies the use of directional, flow and pressure control devices in circuits. Also provides students with the knowledge and understanding of the operation, function, and application of hydraulic pumps and actuators.

MECH 1105 **1-3**
Hydraulics Lab
Hydraulics lab examines basic equipment and fundamentals of hydraulic valves of fluid power. Focus will also cover various flow controls, pumps and motors. Students will tear down, plumb and operate the various components

MECH 1110 **2**
Fluid Power Calculations
Fluid Power Calculations applies math concepts used to calculate basic system parameters such as lifting force, pressures, horsepower, time, velocities, and conductor sizes. Students will calculate efficiencies, flow, pressure, horsepower, speed, torque and displacement for basic fluid power systems.

MECH 1115 **2**
Computer Aided Design
Introduces the skills needed to design, draw, edit, and publish various industrial schematics using CAD software. Students will demonstrate the ability to edit and design mechanical, electrical, and structural schematics. Course time will include instruction on drawing setup and commands along with hands-on lab time working with and creating drawings.

MECH 1120 **3**
Pneumatic Theory
Pneumatic Theory introduces the students to gas laws and principles, and pneumatic component identification, functions and applications. Concurrent enrollment with MECH 1131.

MECH 1125 **2**
Electrical Controls I
Electrical Controls I introduces basic electrical concepts. Students will be introduced to electrical theory, electrical safety hazards and requirements, and electrical circuit wiring and measurement. Students will learn to identify electrical control components used in an industrial environment and apply the concepts necessary for designing, wiring, troubleshooting, and operation of electrical control circuits.

MECH 1131 **1**
Pneumatic Lab
Pneumatic Lab provides students with skills in plumbing, troubleshooting, and operation of basic pneumatic circuits. Concurrent enrollment with MECH 1120.

MECH 1135 **3**
Electrical Controls II
Electrical Controls II includes the control of electromechanical devices, AC and DC motors, solid state control devices, electrical schematics used to interpret logic and circuit function. Students will design, wire, and troubleshoot electromechanical and motor starter circuits using common industrial devices and components and analyze electrical control circuits used in industrial environments.

MECH 2100 **3**
Advanced Systems Calculations
Advanced Systems Calculations provides students with knowledge and skills of calculating and sizing systems in both mobile and industrial fluid power applications. Prerequisites: Successful completion of year one in the Mechatronics diploma or A.A.S. degree program or equivalent work experience.

MECH 2105 **4**
Advanced Fluid Power Systems I
Advanced Fluid Power Systems I provides students the opportunity to design, plumb, and operate various advanced hydraulic, pneumatic, and electrical control circuits. Prerequisites: Successful completion of year one in the Mechatronics diploma or A.A.S. degree program or equivalent work experience.

MECH 2110 **3**
Circuit Design and Control Theory
Circuit Design and Control Theory provides student instruction in design and function of hydrostatic drives, mobile valves, pump controls, and power steering. Prerequisite: MECH 1103.

MECH 2120 **5**
Automated Systems
Provides students with an understanding of and the ability to use programmable logic controllers, human machine interfaces, drives, controllers, and other hardware to control and power all phases of industrial automation. Prerequisite: MECH 2136.

MECH 2125 **3**
Motion Control
Examines components in a motion control system, including servo systems, motors, feedback devices, controllers, and the software used to control precise motion in industrial automation. Prerequisite: MECH 2136

MECH 2126 **4**
Systems Analysis
Systems Analysis provides students with the knowledge of how fluid power components interact with each other in systems and determine causes of malfunction. Prerequisite: Successful completion of year one in the Mechatronics diploma or A.A.S. degree program or equivalent work experience.

MECH 2130 **4**
Advanced Fluid Power Systems II
Advanced Fluid Power Systems II provides students advanced fluid power theory and application for product specification and selection, design, service and fabrication. Prerequisite: MECH 2105.

MECH 2136 **3**
Programmable Logic Controllers
This course demonstrates the use of programmable logic controllers and circuits to control and power all phases of industrial automation. Prerequisite: MECH 1135.

MECH 2141 **2**
Proportional & Servo Control Theory
Provides students with knowledge and working skills dealing with electronic control of electro-hydraulic proportional and servo controls. Prerequisite: Successful completion of year one in the Mechatronics diploma or A.A.S. degree program or equivalent work experience.

MECH 2165 **1**
Instrumentation and Control Lab
Instrumentation and Control Lab provides hands-on experience to the essential elements of a process control system. It will provide plant operators and entry-level instrument mechanics, basic knowledge of common process instrumentation and control schemes cover an introductory look at the fundamental principles of automatic process control. Prerequisite: Concurrent Enrollment with RNEW 1160.

MEDICAL ASSISTANT (MEDA)

MEDA 1105 **3**
Clinical Procedures I
Clinical Procedures I teaches the fundamentals of the clinical aspect of medical assisting, and includes learning to perform specific skills. Areas taught include communication and professionalism, basic principles of psychology, medical asepsis, the medical assistant's role in assisting with the medical exam, eye and ear procedures, physical agents that promote tissue healing, care of instruments and documentation. Prerequisite: It is recommended that BIOL 2245 or HC 1180 and HC 1151 be taken before or concurrently with this course.

MEDA 1135 **3**
Laboratory Skills
Laboratory Skills focuses on the role of the medical assistant in the laboratory setting. CLIA-waived testing is studied and performed in the laboratory areas of urinalysis, immunology, hematology, chemistry and microbiology. Specimen collection, quality control and documentation of test results are included. Additional topics explored include electrocardiology, respiratory testing and emergency preparedness. The class also reinforces the fundamental laboratory skills of infection control, safety and phlebotomy taught in MDLT1100. Prerequisite: MDLT 1100.

MEDA 2110 **4**
Clinical Procedures II
Clinical Procedures II reinforces the fundamental aspects of clinical medical assisting taught in Clinical Procedures I and expands into surgical asepsis, minor office surgery and wound care. The specialty areas of OB/GYN, pediatrics, colon procedures and male reproductive health are explored. Dosage calculations and medication administration techniques are also taught. Included is the performance of specific skills related to each area of study. Prerequisite: MEDA 1105.

MEDA 2135 **3**
Pharmacology
Pharmacology introduces pharmacological concepts and drug classifications as they apply to the diseases and disorders they prevent and/or treat. The class also explores the effects of drugs on the different body systems. Prerequisite: HC 1151 or both BIOL 2201 and BIOL 2202.

MEDA 2139 **1**
Professional Integration
Professional Integration reinforces key curriculum components for the medical assistant student entering practicum. The class provides orientation to the practicum experience and preparation for the medical assistant certification exam. Prerequisites: Successful completion of all other Medical Assistant Diploma Program requirements (37 program credits) except for MEDA2140 .

MEDA 2140 **6**
Medical Assistant Practicum
Medical Assistant Practicum provides on-the-job experience for the medical assistant student. The student will be assigned to work in a medical office under the supervision of clinic personnel. There they will observe and perform the skills learned in the medical assistant program. Prerequisite: Students entering MEDA2140 will have successfully completed all other Medical
Assistant Diploma Program requirements (38 credits).

MUSIC (MUSC)

MUSC 1101 **3**
Fundamentals of Music Meets Goal Area: 06
Fundamentals of Music covers basic music symbols, vocabulary, rhythm, scale structures, intervals, chords, and simple piano skills. This is a required course for all elementary education majors. It is open to any student who desires a basic introduction to music.

MUSC 1102 **3**
Introduction to Music Technology
Meets Goal Areas: 06, 08
Introduction to Music Technology explores various music technology applications through hands-on study and creative projects. This course is an introduction to the origins, terminology, and fundamental concepts of music technology. Prerequisite: Basic computer skills.

MUSC 1103 **3**
Music in World Cultures Meets Goal Areas: 06, 08
Music in World Cultures introduces selected musical traditions from around the world. Students will explore typical instruments, performance traditions, well-known musicians, and learn to listen and analyze music from different cultural perspectives. Overall, this course aims to explore music as a form of human expression and a meaningful aspect of daily life. Prerequisite: STSK 0095 or placement by Multiple Measures.

MUSC 1104 **3**
American Popular Music Meets Goal Area: 06
American Popular Music surveys the development of popular music in the United States in a cross-cultural milieu relative to the history and sociology of the 20th Century. Prerequisite: STSK 0090 or placement by multiple measures.

MUSC 1105 **3**
Music Appreciation Meets Goal Area: 06
Music Appreciation gives a broad overview of Western art music from the Middle Ages through the 21st Century. The focus of the course is only weekly listening and reading assignments meant to enhance student's music experience. Major composers and their works will be placed in social and cultural contexts. Prerequisite: STSK 0090 or placement by multiple measures.

MUSC 1108 **1**
Concert Band
Concert Band prepares students for performance of concert band and wind ensemble literature. Open to all students who play band instruments. Performances are given both on and off campus. One major performance each semester. Prerequisite: Audition.

MUSC 1110 **3**
Introduction to Rock Music Meets Goal Area: 06
Introduction to Rock Music explores the history of rock and roll music, its relevant performers, producers, recordings, and cultural identity. This course is an appreciation of the origins, characteristics and stylistic development of rock and roll music from the early 1950s to the present. Prerequisite: STSK 0090 or placement by multiple measures.

MUSC 1111 **1**
Choir Meets Goal Area: 06
Choir consists of a vocal ensemble, performing a wide range of musical styles. At least one major performance takes place.

MUSC 1112 **1**
Choir Meets Goal Area: 06
Choir consists of a vocal ensemble, performing a wide range of musical styles. At least one major performance takes place.

MUSC 1140 **1**
Piano Lessons Meets Goal Area: 06
Piano Lessons provides regularly scheduled individualized instruction. Open to interested students at all levels of ability.

MUSC 1141 **1**
Piano Lessons Meets Goal Area: 06
Piano Lessons provides regularly scheduled individualized instruction. Open to interested students at all levels of ability.

MUSC 1145 **1**
Vocal Lessons Meets Goal Area: 06
Vocal Lessons develops singing technique through a regularly scheduled program of individualized instruction.

MUSC 1146 **1**
Vocal Lessons Meets Goal Area: 06
Vocal Lessons develops singing technique through a regularly scheduled program of individualized instruction.

MUSC 2108 **1**
Concert Band
Concert Band prepares students for performance of concert band and wind ensemble literature. Open to all students who play band instruments. Performances are given both on and off campus. One major performance each semester. Prerequisite: Audition.

MUSC 2111 **1**
Choir Meets Goal Area: 06
Choir consists of a vocal ensemble, performing a wide range of musical styles. At least one major performance takes place.

MUSC 2112 **1**
Choir Meets Goal Area: 06
Choir consists of a vocal ensemble, performing a wide range of musical styles. At least one major performance takes place.

MUSC 2140 **1**
Piano Lessons Meets Goal Area: 06
Piano Lessons provides regularly scheduled individualized instruction. Open to interested students at all levels of ability.

MUSC 2141 **1**
Piano Lessons Meets Goal Area: 06
Piano Lessons provides regularly scheduled individualized instruction. Open to interested students at all levels of ability.

MUSC 2145 **1**
Vocal Lessons Meets Goal Area: 06
Vocal Lessons develops singing technique through a regularly scheduled program of individualized instruction.

MUSC 2146 **1**
Vocal Lessons Meets Goal Area: 06
Vocal Lessons develops singing technique through a regularly scheduled program of individualized instruction.

NATURAL SCIENCE (NSCI)

NSCI 1100 **3**
Issues in the Environment Meets Goal Areas: 08, 10
Issues in the Environment takes a broad look at environmental issues and explores in depth certain global, national, and local environmental problems. In addition to lecture, guest speakers, field trips, and videos may be used. Prerequisite: STSK 0090 or placement by multiple measures.

NURSING (NURS)

NURS 1100 **3**
Principles and Practices of Nursing
Principles and Practices of Nursing explores the basic needs of clients while reinforcing concepts learned in the nurse assistant course. Emphasizes nursing responsibilities and interventions utilized by the practical nurse to assist clients to meet basic needs. Topics covered include, but are not limited to the following topics: homeostasis, elimination, therapeutic communication skills, documentation, nursing process, critical thinking, psychosocial health, death and the grieving process, nutrition, and care of the geriatric patient. Performance of nursing skills are taught and evaluated in the lab setting. The key concepts of teamwork and collaboration, safety, quality improvement, professional identity/behavior, patient/relationship centered care, nursing judgment/evidence based practice, managing care, and informatics/technology are introduced.

NURS 1120 **3**
Nursing of the Adult I
Nursing of the Adult I introduces learners to alterations in functioning, as well as basic disease processes throughout the adult lifespan. Disruptions in the following body systems are covered: cardiovascular, respiratory, skin and sensory systems. Topics of infectious processes, diabetes mellitus, and drug therapy will be addressed. Gerontological and cultural consideration will be included. Critical thinking through the use of the nursing process, health promotion, and standards of care are used to guide learners.

NURS 1130 **3**
Pharmacology I
Pharmacology I introduces pharmacological concepts, drug classifications, and affects of drugs on the client. It prepares the student for dosage calculations and the administration of medications.

NURS 1140 **2**
Nursing Skills Lab
Nursing Skills Lab introduces students to basic assessment and nursing skills to be demonstrated in the lab setting. The course will include the following skills areas: vital signs, activity/mobility, oxygenation, medication administration, injections, elimination, and assessment.

NURS 1180 **2**
Clinical Applications I
Clinical Applications I provides the learner an opportunity to apply nursing judgment using the nursing process to implement safe, patient/relationship centered care in the long-term care setting. The clinical student focuses on assessing and collecting data, implementing skills learned in the lab setting, documenting findings and reinforcing teaching plans for patients with common problems. The student develops communication and customer service skills working with individual patients, families, and team members.

NURS 1220 **3**
Nursing of the Adult II
Nursing of the Adult II introduces the learners to alterations in functioning, including basic disease processes throughout the adult lifespan. Disruptions in the following body systems are explored: renal, reproductive, gastrointestinal, endocrine, neurovascular, and musculoskeletal systems. Topics of cancer and surgical client care will be addressed. Nursing and collaborative interventions and critical thinking skills are reinforced. Pharmacological concepts, gerontological, and cultural considerations will be included. Critical thinking through the use of the nursing process, health promotion, and standards of care are used to guide the students. Prerequisites: Acceptance into the Practical Nursing Program and successful completion of NURS 1120.

NURS 1230 **3**
Pharmacology II
Pharmacology II builds on pharmacological concepts, drug classifications, and effects of drugs on the client from Pharmacology I. It prepares the learner for dosage calculations and the administration of medications. Prerequisites: Acceptance into the Practical Nursing Program and successful completion of NURS 1130.

NURS 1250 **4**
Family Nursing
Family Nursing introduces the learner to the childbearing/childrearing family. Concepts included are psychosocial, normal physical, and abnormal conditions of pregnancy, the health and illness of the newborn through the adolescent, and the influence of the community on the family. Application of growth and development theory to direct patient care is emphasized. Prerequisites: Acceptance in the nursing program. Successful completion of NURS 1100 and completion of PSYC 1150.

NURS 1260 **1**
Mental Health Nursing
Mental Health Nursing focuses on the introduction of the student to mental health aspects and illness as well as the holistic care of a client with mental health disorders. This course will also look at the psychotherapeutic management in the continuum of care, milieu management and care of special populations. Prerequisites: Acceptance in the nursing program. Successful completion of NURS 1100 or NURS 1120.

NURS 1280 **6**
Clinical Application II
Clinical Application II provides the learner an opportunity to apply nursing judgment using evidence based care, critical thinking and clinical judgment to implement safe, patient/relationship centered care to patients across the lifespan. The learner reflects on the value of patient centered care, teamwork and collaboration, informatics, quality improvement, safety, managing care, and nursing judgment/evidence based care in his/her career as a LPN.

NURS 1295 **2**
PN Integration
PN Integration facilitates the transition of the learner to the role of an LPN. Concepts related to leadership and management are presented, as well as career development options that enhance career mobility. Standards of practice and the importance of practicing according to state regulations and statutes for the scope of practice for the LPN are examined.

NURS 2000 **1**
Transition to Professional Nursing Education
Transition to Professional Nursing Education facilitates the learner's transition to college and the AS Nursing Program. Emphasis includes the RN scope of practice, introduction to the AS nursing framework at Minnesota West, and strategies for student success in a learner-centered environment. Topics and nursing concepts essential for success in the AS nursing program will be reviewed.

NURS 2125 **3**
Patient Centered Care I
Patient Centered I will focus on nursing process and clinical judgment in the care of patients and their families. Concepts of therapeutic communication, health promotion, pharmacology, and nutrition are integrated throughout the content. Care of the patient experiencing pain, infectious disease, problems with immunity, fluid and electrolyte imbalances, acid-base imbalances, shock, cancer, and undergoing surgery will be explored. Disorders of the respiratory, cardiac, and hematologic systems will be included.

NURS 2130 **2**
Pharmacology: A Pathophysiologic Approach I
Pharmacology: A Pathophysiologic Approach I provides an opportunity to synthesize pharmacologic, basic pathophysiologic, and nursing concepts to minimize risk of harm for patients. Promotes use of current information to prevent error and support decision making related to the nurse patient relationship, body defenses, hematopoiesis, cardiovascular function, respiratory function, urinary function, nervous function as it correlates with pharmacologic therapy. Medical Math including arithmetic, metric measuring, calculation of oral medications and basic medication administration will be included. Prerequisite: Admission to the Associate in Science nursing program.

NURS 2135 **2**
Geriatric and Psychiatric Nursing
Geriatric & Psychiatric Nursing focuses on nursing process and clinical judgment in the care of patients and their families. Concepts of therapeutic communication, health promotion, safety, pharmacology,

and nutrition are integrated throughout content. Unique needs of the gerian client and individuals experiencing disruption in their mental health will be addressed. Prerequisite: Admission to the Associate in Science Nursing Program.

NURS 2145 **2**
Principles of Professional Nursing
Principles of Professional Nursing teaches the concepts of patient-centered care including holistic assessments, nursing process and patient education, therapeutic communication, and safety in care delivery are emphasized. Evidence-based practice as a foundation for sound clinical reasoning is incorporated. Prioritization, delegation and supervision as it related to client care and working with other professionals is included throughout the course. Facilitates transition of the Licensed Practical Nurse into the professional nursing role.

NURS 2150 **2**
Skills Lab
Skills Lab assists the student in developing safe, evidence based nursing skills. Delegated medical functions as well as physical and psychosocial assessment of adults and children are practiced. Safety in medication dosage and medication administration is practiced. Simulation will be used to integrate skills in preparation for the acute care clinical environment.

NURS 2190 **2**
Acute Care Clinical I
Acute Care Clinical I allows students to demonstrate safe and effective application of the nursing process with emphasis on patient/family centered care, and the demonstration of therapeutic and professional communication. Students demonstrate clinical reasoning to synthesize newly acquired cognitive and technical skills with prior knowledge, skills, and attitudes. Prerequisite: Admission to Associate in Science Nursing Program, has completed necessary preclinical documentation as required by clinical sites, CastleBranch verification is complete.

NURS 2225 **3**
Patient Centered Care II
Patient Centered Care II focuses on nursing process and clinical judgment in the care of patients and their families. Emphasis is placed on professional knowledge, skills, and attitudes integral to the nursing competencies of patient centered care, safety, and evidenced based practice. Concepts of therapeutic communication, health promotion, pharmacology, and nutrition are integrated throughout the course. Care of the client with endocrine, neurological, integumentary, gastrointestinal, renal, musculoskeletal, and reproductive disorders. Emergency nursing care will be explored. Prerequisite: NURS 2125.

NURS 2245 **2**
Health Promotion and the Role of the Professional Nurse

Health Promotion and the Role of the Professional Nurse teaches health promotion and disease prevention for self, client, families, and communities will be emphasized. Identifies management and leadership theory for transition into the professional nurse role. Coordinate care and case management for all patients. Incorporate complementary and interactive health care into the care of all patients. The learner integrates knowledge, skills, and attributes needed to care for groups of clients, nursing team management, effective resolve conflict, interprofessional collaboration, prioritization, delegation, supervision. Participation in a service learning project. Explore the malpractice and legal issues and affecting nursing. Develop a portfolio. Preparation for end-of-program requirements and NCLEX-RN exam. Prerequisites: NURS 2125, NURS 2130, NURS 2145, NURS 2150, and NURS 2190.

NURS 2255 **2**
Pharmacology: A Pathophysiologic Approach II
Pharmacology: A Pathophysiologic Approach II provides an opportunity to synthesize pharmacologic, basic pathophysiologic, and nursing concepts to minimize risk of harm for patients. Promotes use of current information to prevent error and support decision making pertaining to the nervous, urinary, integumentary, endocrine and gastrointestinal systems. Calculation of medication dosages for liquid injections, IV drip rates, IV calculations and dosage problems for infants and children will be addressed. Prerequisite: Admission to the Associate in Science nursing program and NURS 2130.

NURS 2260 **3**
Family Centered Care
Family Centered Care integrates understanding of key dimensions of patient and family centered care for children experiencing illness and obstetrical and newborn complications. Prioritization and delivery of safe, quality care incorporating patient and family preferences, values, and beliefs. Current ¿best practice¿ will be examined to validate incorporation of evidence-based empirical research in care for individuals and families. Prerequisites: NURS 2125 or NURS 2130.

NURS 2275 **0**
Nursing Preceptorship
Nursing Preceptorship provides an opportunity for skill refinement and increased self-confidence in the role of Associate Degree Nurse through working with a preceptor. The learner applies the nursing process in a realistic work setting. Concepts of accountability and professionalism are integrated from prior learning.
Prerequisites: NURS 2190, NURS 2290, and NURS 2390.

NURS 2290 **2**
Acute Care Clinical II
Acute Care Clinical II builds on the knowledge, skills, and attitudes from NURS 2190. Refinement of assessment, communication, and technical skills is practiced in an acute care setting. The student creates and evaluates patient centered plans of care while utilizing Evidence Based Practice (EBP). Prerequisites: NURS 2125, NURS 2130, NURS 2145, NURS 2150, and NURS 2190. Maintains current requirements of clinical sites.

NURS 2390 **2**
Clinical in Alternate Settings
Clinical in Alternate Settings is the application of knowledge, skills, and attitudes from prior nursing courses to patients, families in alternate care settings such as nursing homes, assisted care facilities, and the community. Structured simulation scenarios to promote clinical reasoning and decision making. Prerequisites: NURS 2125, NURS 2130, NURS 2145, NURS 2150, NURS 2190, and NURS 2290.

OCCUPATIONAL THERAPY ASSISTANT (OTAC)

OTAC 1100 **2**
Introduction to OTA
Introduction to OTA explores the profession of occupational therapy, including the history, philosophical base, educational requirements, licensure, OT and OTA intradisciplinary dynamics, and certification requirements. Students examine the basic concepts of occupation, activity analysis, and the Occupational Therapy Practice Framework. Students become familiarized with occupational therapy ethics and standards of practice.

OTAC 1105 **2**
Clinical Conditions and Abilities
Clinical Conditions and Abilities examines normal development from infancy through adulthood. Clinical conditions that commonly interrupt development in occupation throughout the lifespan are explored with an emphasis on individual ability rather than disability while incorporating social determinants of health and society's impact on health. Use of basic theories related to body structure and function, human development, and the importance of theory for occupational therapy is applied and promoted.

OTAC 1110 **4**
Foundational Skills for the OTA
Foundational Skills for the OTA explores the entry-level skills needed to be a successful OTA in all settings. Intra- and interprofessional skills, therapeutic use of self, expected roles, student self-analysis, and self-directed learning are key concepts integrated throughout the course. Students begin differentiating the roles of an occupational therapy assistant and an occupational therapist and understand their unique role on the therapy team. Emphasis is placed on evidence-based practice, occupation-based treatment ideas, grading/adapting activities, and treating within current reimbursement systems. Students are introduced to personal and professional responsibilities as an OT practitioner.

OTAC 1115 **2**
Problem-Based Learning for the OTA I
Problem-Based Learning for the OTA I develops the necessary skills to identify appropriate resources, interpret, and apply knowledge to the practice of occupational therapy. This course focuses on developing the critical thinking skills needed to promote the use of evidence-based practice throughout the occupational therapy process. Ethical reasoning and problem-based learning concepts of collaboration will be introduced. Opportunities for independent and active learning are provided throughout the course with a strong emphasis on developing skills for lifelong learning.

OTAC 1200 **3**
Movement of Occupations
Movement of Occupations describes muscle function, muscle strength, muscle endurance, functions of joints and bones, innervations, and the purposeful movement needed to allow people to complete their everyday occupations. Students examine types of muscle contractions and joint movements during occupation-based activities through active learning and analysis. Treatment ideas for various health conditions that affect the neuromusculoskeletal system are explored. Prerequisite: OTAC 1110, BIOL 2201 and BIOL 2202.

OTAC 1210 **4**
Pediatric Applications
Pediatric Applications addresses occupational therapy evaluation, treatment, and therapeutic intervention from the prenatal stages through adolescence. Pediatric development and functional ability are explored alongside occupation-based and evidence-based practice. Intra- and interdisciplinary dynamics and professional behavior is a focus. Each setting for pediatric practice is considered as well as family-centered care. Prerequisite: OTAC 1110 and PSYC 1150.

OTAC 1215 **2**
Problem-Based Learning for the OTA II
Problem-Based Learning (PBL) for the OTA II builds upon PBL for the OTA I by continuing to encourage group processes, critical thinking, and effective decision-making. Students demonstrate self-directed learning via peer interactions to solve real-world scenarios reflective of the OTA working experience. Prerequisite: OTAC 1115.

OTAC 1220 **4**
Rural and Community-Based Practice for OT
Rural and Community-Based Practice for OT explores the impact of the rural environment on individual engagement in occupations. Community-based practice models and emerging roles of occupational therapy assistants in the community are explored. Emphasis is placed on independent and active learning with a focus on developing skills for lifelong learning. Prerequisite: OTAC 1110 and PSYC 2221.

OTAC 1230 **1**
Level I Fieldwork A
Level I Fieldwork A participates in a 32-40 hour supervised clinical experience in an OTA practice or comparable environment. Knowledge and skills learned from previous courses are applied when working with clients and staff in a professional setting. Students are supervised by a qualified individual and will have opportunities to observe clients and apply therapeutic knowledge. Prerequisites: OTAC 1100 and OTAC 1110.

OTAC 1240 **1**
Documentation for the OTA
Documentation for the OTA examines the intricacies of writing effective OT notes for describing patient care. Students demonstrate appropriate use of SOAP notes, therapeutic coding and billing practices, and professional responsibilities associated with documentation. Prerequisite: OTAC 1110 and ENGL 1101.

OTAC 2100 **3**
Mental Health Across the Lifespan
Mental Health Across the Lifespan explores the growing body of knowledge and awareness of mental health through the occupational therapy lens. Students are exposed to current assessments and practices, legislation, advocacy, and the unique role the OT profession has in the area of mental health. Emerging roles of occupational therapy assistants in this setting is explored. An emphasis is placed on independent and active learning with a focus on developing skills for lifelong learning. Prerequisite: OTAC 1220.

OTAC 2110 **4**
Adult Applications
Adult Applications explores occupational therapy evaluation, treatment, and implementation for adult individuals. Normal development and interruption of physical function will be explored. Occupation-based and evidence-based practice will be identified and implemented. The role of occupational therapy assistants and occupational therapists in the occupational therapy process are explored. Emphasis is placed on independent and active learning with a focus on developing skills for lifelong learning. This course provides an opportunity to work collaboratively inter-professionally and intra-professionally and to develop and enhance professionalism as a healthcare provider. Prerequisite: OTAC 1200 and OTAC 1210.

OTAC 2115 **2**
Problem-Based Learning for the OTA III
Problem-Based Learning (PBL) for the OTA III promotes entry-level critical thinking skills using best practices, scholarship, and dedicated resources. Students continue building upon PBL I and II to culminate in a final project demonstrating ethical practice, lifelong learning skills, and effective communication. Prerequisite: OTAC 1215.

OTAC 2120 **4**
Geriatric Applications
Geriatric Applications explores occupational therapy evaluation, treatment, and implementation for geriatric individuals. Normal development and interruption of physical function will be explored. Occupation-based and evidence-based practice will be identified and implemented. The role of occupational therapy assistants and occupational therapists in the occupational therapy process are explored. Emphasis is placed on independent and active learning with a focus on developing skills for lifelong learning. This course provides an opportunity to work collaboratively inter-professionally and intra-professionally and to develop and enhance professionalism as a healthcare provider. Prerequisites: OTAC 1200 and OTAC 1210.

OTAC 2130 **1**
Level I Fieldwork B
Level I Fieldwork B participates in a 32-40 hour supervised clinical experience in an OTA practice or comparable environment. Knowledge and skills learned from previous courses are applied when working with clients and staff in a professional setting. Students are supervised by a qualified individual and will have opportunities to observe clients and apply therapeutic knowledge. Prerequisite: OTAC 1230.

OTAC 2140 **2**
Professional Seminar
Professional Seminar examines occupational therapy professional ethics, values, and responsibilities. The student builds personal and professional development plans and resumes. Business aspects, credentialing and licensure requirements, and supervisory requirements are emphasized. Students participate in independent and active learning with a focus on developing skills for lifelong learning. Prerequisite: OTAC 1230.

OTAC 2230 **6**
Level II Fieldwork A
Level II Fieldwork A is an eight-week supervised clinical experience in an occupational therapy setting. Knowledge and skills learned from previous courses are applied when working with clients and staff in a clinical setting. Students are supervised by an OT and/or OTA and will have opportunities to work intra- and inter-professionally throughout the eight-week fieldwork. Students will share their knowledge of evidence-based practice with others during their placement to promote lifelong learning. Prerequisite: HC 1180 or BIOL 2245, and OTAC 2130.

OTAC 2240 **6**
Level II Fieldwork B
Level II Fieldwork B is an eight-week supervised clinical experience in an occupational therapy setting. Knowledge and skills learned from previous courses are applied when working with clients and staff in a clinical setting. Students are supervised by an OT and/or OTA and will have opportunities to work intra- and inter-professionally throughout the eight-week fieldwork. Students will share their knowledge of evidence-based practice with others during their placement to promote lifelong learning. Prerequisite: OTAC 2230.

PHYSICAL EDUCATION (PHED)

PHED 1101 **3**
Foundations of Health, Physical Education, Exercise Science, & Sport
Foundations of Health, Physical Education, Exercise Science, & Sport provides an introduction to the history, philosophy, objectives, and principles of health, physical education, exercise science and sport. Topics included will be career opportunities and preparation; professionalism including attitudes; ethics, and organizations. This course designed is for persons who plan to major or minor in Health, Physical Education, Exercise Science, or Sport.

PHED 1106 **2**
Psychology of Winning
Psychology of Winning studies the basic principles of psychology related to success and motivation. Emphasizes positive-winning attitudes, success traits, goal-setting and basic psychology principles. This course is designed to help students recognize the strong relationship that exists between attitudes and success in school, work, sports, and life.

PHED 1110 **3**
Prevention and Care of Athletic Injuries I
Prevention and Care of Athletic Injuries I covers the modern principles of athletic training for people involved in the health care of athletes. This course is designed to study the principles, practices, and techniques used by a certified trainer in the prevention, management, and rehabilitation of athletic injuries. This course is recommended for students interested in athletic training, sports medicine, physical therapy, coaching, physical education, or recreation.

PHED 1120 **1**
Beginning Archery
Beginning Archery emphasizes the basic aspects of archery for the student wishing to learn fundamental skills and safety components of this sport.

PHED 1126 **1**
Beginning Yoga
Beginning Yoga teaches methods and techniques of hatha yoga with an emphasis on the vinyasa style. Promotes the fitness and health benefits of mind-body awareness.

PHED 1130 **1**
Physical Fitness for Life
Physical Fitness for Life emphasizes aspects of physical fitness for the student wishing to learn methods and tests of physical fitness. Cardiovascular and respiratory fitness, as well as muscular strength and endurance will be emphasized. The course is self- paced.

PHED 1135 **1**
Beginning Tennis
Beginning Tennis introduces the fundamentals of tennis as a leisure time activity. Emphasis is on acquiring technique, knowledge, and fitness.

PHED 1140 **2**
Body Conditioning
Body conditioning is designed to teach students basic techniques for effective weight training, while utilizing body weight, machines and free weights to assist students in becoming physically stronger. The student will also be exposed to basic anatomy and physiology principles regarding warm-up, stretching and body musculature.

PHED 1145 **1**
Bowling
Bowling teaches students how to bowl using the spot bowl system. Students will learn how to keep score and select appropriate equipment to assure that bowling can become a lifelong leisure activity.

PHED 1160 **1**
Beginning Golf
Beginning Golf is designed to introduce the student to the game of golf. Skills for successful play include the fundamentals of the grip, stance and swing. The course is designed to work on the fundamentals and progress with skill development, learn the rules of the game, and game/course management during a round of golf.

PHED 1170 **1**
Intercollegiate Men's Football
Intercollegiate Men's Football includes participation in intercollegiate competition in men's football, where they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 1171 **1**
Intercollegiate Volleyball
Intercollegiate Volleyball provides credit to first year students who report for the volleyball squad and who complete the requirements of the course. This includes participation in Minnesota Community College Athletic Conference competition.

PHED 1172 **1**
Intercollegiate Men's Basketball
Intercollegiate Men's Basketball includes participation in intercollegiate competition in men's basketball, where they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 1173 **1**
Intercollegiate Women's Basketball
Intercollegiate Women's Basketball includes participation in intercollegiate competition in women's basketball at the community college level representing Minnesota West Community and Technical College, Worthington Campus in the Minnesota Community College Athletic Conference.

PHED 1174 **1**
Intercollegiate Men's Wrestling
Intercollegiate Men's Wrestling includes participation in competition. Students acquire knowledge at the freshmen level and represent Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 1175 **1**
Intercollegiate Women's Softball
Intercollegiate Women's Softball includes participation in intercollegiate competition in women's softball at the community college level representing Minnesota West Community and Technical College, Worthington Campus in the Minnesota Community College Athletic Conference.

PHED 1176 **1**
Intercollegiate Baseball
Intercollegiate Men's Baseball includes participation in intercollegiate competition in men's baseball, where they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 1177 **1**
Intercollegiate Women's Golf
Intercollegiate Women's golf includes participation in intercollegiate competition in women's golf at the community college level representing Minnesota West Community and Technical College in the Minnesota Community College Athletic Conference and National Junior College Athletic Association.

PHED 1178 **1**
Intercollegiate Men's Golf
Intercollegiate Men's Golf includes participation in intercollegiate competition in men's golf, that they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 1179 **1**
Intercollegiate Women's Soccer
Intercollegiate Women's Soccer includes participation in intercollegiate competition in women's soccer at the community college level representing Minnesota West Community and Technical College in the Minnesota Community College Athletic Conference and National Junior College Athletic Association.

PHED 1180 **3**
Principles of Coaching
Principles of Coaching introduces students to the basic principles, philosophies, and theories associated with effective coaching. This course emphasizes sport pedagogy, enhanced communication and motivational skills, and coaching philosophies to become more effective teachers/coaches. Principles of Coaching will provide knowledge that should improve team relationships, risks, and self-management skills.

PHED 1189 **1**
Intercollegiate Men's Soccer
Intercollegiate Men's Soccer includes participation in intercollegiate competition in men soccer, that they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association.

PHED 2020 **4**
Introduction to Event and Facilities Management
Introduction to Event and Facilities Management introduces students to the study of the principles, guidelines, and recommendations for planning, constructing, using, and maintaining indoor and outdoor sport industry facilities. Also, students are introduced to grant writing for the purpose of learning funding mechanisms, when designing, maintaining, and growing of
sports facilities and programs. Prerequisite: PHED 1101

PHED 2090 **3**
Sport in Society
Sport in Society introduces students to an in-depth study of the major issues in the world of sports and how it relates to society. All primary issues impacting contemporary sports are covered, including performance- enhancing drugs; human growth hormones; gender inequity; race and ethnicity; youth, adolescent, and adult programs; media involvement; economics; management structures; and globalization.

PHED 2110 **2**
Prevention and Care of Athletic Injuries II
Prevention and Care of Athletic Injuries II continues PHED 1110. Emphasizes the anatomy, kinesiology, and care of knee, thigh, and lower leg injuries. Shoulder, elbow, arm, and hand injuries are also studied. Prerequisite: PHED 1110.

PHED 2111 **3**
Sports Management
Sports Management introduce students to the vast array of fields within the sport management industry, the different job opportunities that are available, advanced knowledge, and skill sets needed in sports business management. Prerequisite: ENGL 1101.

PHED 2135 **1**
Intermediate Tennis
Intermediate Tennis introduces the advanced fundamentals of tennis as a leisure time/competitive activity. Emphasis is on acquiring advanced technique, knowledge, and fitness. Prerequisite: PHED 1135

PHED 2140 **2**
Theory and Technique of Body Conditioning
Theory and Technique of Body Conditioning teaches methods and techniques of physical conditioning. Includes the use of theory in designing different fitness programs. Prerequisite: PHED 1130 or PHED 1140 or consent of instructor.

PHED 2170 **1**
Intercollegiate Men's Football
Intercollegiate Men's Football includes participation in intercollegiate competition in men's football, where they acquired knowledge at the sophomore intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1170 or freshman-level intercollegiate football class from another accredited college or university.

PHED 2171 **1**
Intercollegiate Volleyball
Intercollegiate Volleyball provides credit to second year students who report for the volleyball squad and who complete the requirements of the course. This includes participation in Minnesota Community College Athletic Conference competition.

PHED 2172 **1**
Intercollegiate Men's Basketball
Intercollegiate Men's Basketball includes participation in intercollegiate competition in men's basketball, where they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1172 or freshman-level intercollegiate basketball class from another accredited college or university.

PHED 2173 **1**
Intercollegiate Women's Basketball
Intercollegiate Women's Basketball includes participation in intercollegiate competition in women's basketball at the community college level representing Minnesota West Community and Technical College, Worthington Campus in the Minnesota Community College Athletic Conference.

PHED 2174 **1**
Intercollegiate Men's Wrestling
Intercollegiate Men's Wrestling includes participation in intercollegiate competition, that they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1174 or freshman-level intercollegiate wrestling class from another accredited college or university.
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PHED 2175 **1**
Intercollegiate Women's Softball
Intercollegiate Women's Softball includes participation in intercollegiate competition in women's softball at the community college level representing Minnesota West Community and Technical College, Worthington Campus in the Minnesota Community College Athletic Conference.

PHED 2176 **1**
Intercollegiate Baseball
Intercollegiate Men's Baseball includes participation in intercollegiate competition in men's baseball, where they acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1176 or freshman-level intercollegiate baseball class from another accredited college or university.

PHED 2177 **1**
Intercollegiate Women's Golf
Intercollegiate Women's Golf includes participation in intercollegiate competition in women's golf for a second season at the community college level representing Minnesota West Community and Technical College in the Minnesota Community College Athletic Conference and National Junior College Athletic Association.

PHED 2178 **1**
Intercollegiate Men's Golf
Intercollegiate Men's Golf includes participation in intercollegiate competition, using knowledge acquired knowledge at the freshmen intercollegiate level, and represented Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Pre-requisite: PHED 1178 or freshman-level intercollegiate wresting class from another accredited college or university.

PHED 2179 **1**
Intercollegiate Women's Soccer
Intercollegiate Women's Soccer includes participation in intercollegiate competition in women's soccer at the community college level representing Minnesota West Community and Technical College in the Minnesota Community College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1179.

PHED 2181 **2**
Wrestling Theory and Coaching
Wrestling Theory and Coaching covers the guidelines of the State and National High School League rules including rules interpretation, sports technique, and casebook studies. Course will also cover the coaching aspects of wrestling, match tactics, scouting, recruiting, team goals, and methods of conducting practice, student academic concerns, and managing players at both the high school and college settings.

PHED 2183 **2**
Basketball Coaching and Officiating
Basketball Coaching and Officiating reviews in detail high school basketball rules and the basic mechanics of officiating basketball. A comparison between high school rules and college basketball rules is made to better enable students to work at and understand both levels.

PHED 2184 **1**
Officiating Volleyball
Officiating Volleyball reviews high school volleyball rules and the basic mechanics of officiating volleyball. A comparison between high school rules and college volleyball rules is made to better enable students to work at and understand both levels.

PHED 2185 **2**
Volleyball Theory and Coaching
Volleyball Theory and Coaching covers the guidelines of the State and National High School League rules including rules interpretation, sports technique, and casebook studies. Course will also cover the coaching aspects of volleyball, game tactics, scouting, recruiting, team goals, and methods of conducting practice, student academic concerns, and managing players at both the high school and college settings.

PHED 2187 **2**
Baseball/Softball Theory and Coaching
Baseball/Softball Theory of Coaching covers the guidelines of the State and National High School League rules including rules interpretation, game technique, and casebook studies. Course will also cover the coaching aspects of baseball and softball, game tactics, scouting, recruiting, team goals, methods of conducting practice, student academic concerns, and managing players at both the high school and college levels.

PHED 2188 **2**
Football Theory and Coaching
Football Theory and Coaching covers the guidelines of the State and National High School League rules including rules interpretation, game technique, and casebook studies. Course will also cover the coaching aspects of football, game tactics, scouting, recruiting, team goals, and methods of conducting practice, student academic concerns, and managing players at both the high school and college settings.

PHED 2189 **1**
Intercollegiate Men's Soccer
Intercollegiate Men's Soccer includes participation in intercollegiate competition in men soccer, they acquire knowledge at the sophomore intercollegiate level, and represent Minnesota West Community and Technical College in the Minnesota College Athletic Conference and National Junior College Athletic Association. Prerequisite: PHED 1189 or freshman level intercollegiate soccer course from another accredited college or university.

PHED 2215 **3**
Sport Marketing
Sport Marketing introduces students to an in-depth study of marketing and its influence on various sports. It involves a thorough review of the product, be it tangible or service, and details bringing the product to market. Topics include advertising, promotions, public relations, location, pricing, sponsorships, licensing, market segmentation, and the role of research.

PHED 2280 **2-8**
Field Experience - Physical Education
Field Experiences - Physical Education offers students paid or unpaid work experiences closely related to their academic and career pursuits. Assists students in gaining skills and realism about job demands and future educational choices. Activities are closely supervised by the college instructors and on-the-job supervisors.

PHILOSOPHY (PHIL)

PHIL 1101 **3**
Introduction to Philosophy Meets Goal Area: 06
Introduction to Philosophy introduces students to five areas of philosophical inquiry and the questions basic to each: ethics (What is the nature of the good?), epistemology (What is the nature of knowledge and truth?), metaphysics (What is the nature of reality?), the philosophy of religion (What are the proofs for God's existence?), and social/political philosophy (What is the nature of a good state?). Using primary texts and class discussion, students will explore the answers philosophers such as Plato, Mill, Kant, Hume, Locke, and Nietzsche have offered. Prerequisite: STSK 0095 or placement by multiple measures.

PHIL 1102 **2**
Philosophy of Religion Meets Goal Area: 06
Philosophy of Religion concerns topics relative to religion and God, including arguments for the existence of God, religious experience, faith and reason, the problem of evil, and immortality. Prerequisite: STSK 0095 or placement by multiple measures.

PHIL 1120 **3**
Environmental Ethics Meets Goal Areas: 09, 10
Environmental Ethics will explore moral obligations between humankind and our natural world. An introduction to ethical theory is included in the course. Topics will include such issues as the nature of our duties toward animal rights, preservation and conservation, climate change, and intergenerational justice. Prerequisite: STSK 0095 or placement by multiple measures.

PHIL 1200 **3**
Logic Meets Goal Area: 04
Logic introduces students to formal and informal logic. Students will learn to identify and outline arguments in classic and contemporary texts, to determine whether an argument is deductive or inductive, and to determine an argument's validity and soundness. Students will learn to diagram categorical syllogisms and to translate propositional statements. Students will also learn to identify and classify logical fallacies. Prerequisite: ENGL 1101. This course counts as a Mathematical/Logical Reasoning course, Area 4.

PHIL 2101 **3**
Ethics Theory and Practice Meets Goal Areas: 06, 09
Ethics Theory and Practice, will introduce students to classical and contemporary ethical theories and apply them in analyzing contemporary ethical issues. Prerequisite: STSK 0095 or placement by multiple measures.

PHIL 2201 **1**
Introduction to Ethical Theory Meets Goal Areas: 06, 09
Introduction to Ethics studies classical and contemporary ethical theories.
The main purpose is to critically examine the various approaches to moral conduct through the reading of primary sources and class discussion. This course is required prior to taking any other ethics course (2202, 2203, 2204, 2223). Prerequisite: STSK 0095 or placement by multiple measures.

PHIL 2202 **1**
General Applied Ethics Meets Goal Areas: 06, 09
General Applied Ethics studies contemporary ethical issues. The main purpose is to critically examine the various approaches to moral conduct. The focus will be on the application of these theories and principles to specific contemporary issues. Prerequisite: PHIL 2201.

PHIL 2205 **2**
Business Ethics Meets Goal Areas: 06, 09
Introduces students to ethical problems in businesses and companies or corporations through presentations by local business, community and corporate leaders on moral behavior and ethical dilemmas in areas such as: medicine, international trade, profit and non-profit organizations, and education.

PHIL 2222 **1**
Medical Ethics Meets Goal Areas: 06, 09
Medical Ethics introduces students to the principles of ethics and how these apply to health care practice. Students will examine two main ethical theories, utilitarian and deontological, as they apply to questions of health care practice. Students will study the ethical principles of autonomy, nonmaleficence, and beneficence. The focus will be on the application of these theories and principles to specific cases. The course is designed for students intending to major in the field of health care. Prerequisite: PHIL 2201.

PHIL 2223 **1**
Ethics for Human Services Workers
Ethics for Human Services Workers introduces students to how the principles of ethics apply in the human services field. Students will examine two main ethical theories, utilitarian and deontological, as they apply to questions of ethical practice in human services. Students will study the ethical principles of autonomy, beneficence, nonmaleficence and justice. The focus will be on the application of these theories and principles to specific issues and cases. The course is designed for students intending to major in human services. Prerequisite: PHIL 2201.

PHIL 2230 **3**
World Religions
Explore various world religions through reading about the religions and reading texts from various faith traditions. Prerequisite: STSK 0095 or placement by multiple measures.

PHARMACY TECHNOLOGY (PHRM)

PHRM 1100 **5**
Pharmacy Principles and Practices I
Pharmacy Principles and Practices I explores the principles of ethical thought as applied to the areas of pharmacy ethics which will include state and federal laws. Students will learn the organization and functions of retail and hospital pharmacy settings. This course will also introduce students to common uses of computers and their practical applications in a pharmacy setting. The roles and responsibilities of a pharmacy technician will be explored as well as Occupational Safety and Health Act (OSHA) and Health Insurance Portability and Accountability ACT (HIPAA) requirements will be covered.

PHRM 1105 **5**
Pharmacy Principles and Practices II
Pharmacy Principles and Practices II demonstrates the preparation of retail and institutional pharmacy practices. Perform advanced procedures including Intravenous (IV) drug admixture, total parenteral nutrition (TPN) and critical care IV admixture. Students will learn and demonstrate understanding of various billing systems as well as the universal medical coding system which uses numerical codes to classify medical conditions and treatments. Apply personal safety and hygiene related to pharmacy practices will be covered. Students will demonstrate knowledge and skill in filling prescriptions in a lab setting and develop communication skills associated with pharmacy technicians. Prerequisite: PHRM 1100.

PHRM 1110 **3**
Pharmaceutical Calculations
Pharmaceutical Calculations teaches students to demonstrate proficiency in specific calculation methods and principles related to pharmacy tasks. Students will utilize basic arithmetic principles in completing tasks associated with a pharmacy technician. Throughout this course basic math skills will be reviewed that are necessary for the required calculations that become more advanced as students' progress through the course. Students will also demonstrate understanding of various measurement systems and various dosage calculations. Prerequisite: PHRM 1100.

PHRM 1115 **4**
Pharmacology for Technicians I
principles of pharmacology. Drugs are discussed in the context of drug classes, mechanics of action, disease types, and body systems. The goal is to provide pharmacy technicians with sufficient background information so that they will be able to play a key role in avoiding dispensing errors. Although emphasis will be given to the approximately 200 most commonly prescribed drugs, many more drugs will be discussed during the semester.

PHRM 1120 **3**
Pharmacology for Technicians II
Pharmacology for Technicians II introduces pharmacy technician students to the general principles of pharmacology. Drugs are discussed in the context of drug classes, mechanics of action, disease types, and body systems. The goal is to provide pharmacy technicians with sufficient background information so that they will be able to play a key role in avoiding dispensing errors. Although emphasis will be given to the approximately 200 most commonly prescribed drugs, many more drugs will be discussed during the semester. Prerequisite: PHRM 1115.

PHRM 1130 **3**
Hospital Externship
Hospital Externship provides students the ability to perform skills in a hospital pharmacy setting under the direction of the pharmacist and pharmacy technicians. This course prepares the student for entering the Pharmacy Technician career field and provides information on career opportunities. Students will apply skills, knowledge, and abilities acquired in the classroom and laboratory settings in a practical work-based pharmacy training environment. Prerequisites: PHRM 1100, PHRM 1105, PHRM 1115, PHRM 1120.

PHRM 1135 **3**
Retail Externship
Retail Externship allows students to perform skills in a retail pharmacy setting under the direction of the pharmacist and pharmacy technicians. This course prepares the student for entering the Pharmacy Technician career field and provides information on career opportunities. Students will apply skills, knowledge, and abilities acquired in the classroom and laboratory settings in a practical work-based pharmacy training environment. Prerequisites: PHRM 1100.

PHYSICS (PHYS)

PHYS 1100 **3**
Survey of Physics Meets Goal Area: 03
Survey of Physics includes a general survey of conceptual physics. Topics include a basic introduction to Newton's Laws of motion, gravitation, physical mechanics, properties of matter, heat, sound, electricity, magnetism, light and nuclear physics. This is mainly a lab activity course for students who have not had high school physics. Prerequisite: Equivalent of MATH 1107, placement by multiple measures, or instructor permission.

PHYS 1150 **3**
Survey of Astronomy Meets Goal Area: 03
Survey of Astronomy covers a general overview of the science of astronomy. Topics include the history of astronomy, the nature of science, celestial motion, phases of the moon, gravity, Kepler's Laws, light and spectroscopy, the Solar System, stars, galaxies, and cosmology. There will be lab activities to accompany many of the topics. Prerequisite: MATH 1107, placement by Multiple Measures, or instructor permission.

PHYS 1201 **4**
Fundamentals of Physics I Meets Goal Area: 03
Fundamentals of Physics I develops a foundation for future studies in fields not requiring calculus, using laboratory and lecture with calculator and computer based instruction. Develops a foundation in physics for liberal arts, premedical, or pre-pharmacy students. Topics include one and two dimensional motion, forces and acceleration, applications of Newton's Laws, momentum, gravitation, collisions, work and energy, rotational motion, angular momentum, harmonic motion and sound. This course includes a lab. Prerequisite: MATH 1107, placement by multiple measures, or instructor permission.

PHYS 1202 **4**
Fundamentals of Physics II Meets Goal Area: 03
Fundamentals of Physics II continues PHYS 1201. Topics include Temperature and Heat transfer, Laws of Thermodynamics and heat engines, electric fields, electricity of direct circuits, electronics, magnetism, electromagnetism, optics, modern physics, and radioactivity. This course includes a lab. Prerequisite: PHYS 1201 or permission of the instructor.

PHYS 2121 **5**
General Physics I Meets Goal Area: 03
General Physics I teaches the fundamentals of physics using calculus and vectors. Uses laboratory centered instruction with calculator and computer based investigations. Topics include kinematics, Newton's Laws of motion, forces, collisions, momentum, work, and energy, energy conservation, rotational motion, angular momentum, torque, harmonic motion, oscillations, and fluids. This course includes a lab. Prerequisite: MATH 1121 (can be taken concurrently).

PHYS 2122 **5**
General Physics II Meets Goal Area: 03
General Physics II continues Physics 2121. Calculus and vectors are used throughout. Uses laboratory-based instruction. Topics include heat and thermodynamics, heat engines, electric charges and forces, electric potential, electric fields, Gauss' Law, direct and alternating current circuits, capacitors and RC circuits, electronics, magnetism and magnetic fields, modern physics, and radioactivity. This course includes a lab. Prerequisite: PHYS 2121 and MATH 1121, with MATH 1122 being taken concurrently or before.

PLUMBING (PLMB)

PLMB 1101 **3**
Introduction to Plumbing
Introduction to Plumbing Introduces students to the tools and equipment of the plumbing trade, the necessity of safety in the workplace and methods described in the Minnesota Plumbing Code. Students will study plastic piping. Plastic piping will involve the joining of drainage, waste and vent, water supply and distribution lines. Students will become familiar with the different types of copper pipe, fittings and tubing. PEX water and heating distribution piping will be discussed and utilized. Students will also explore water pumps.

PLMB 1102 **4**
Plumbing Installation and Fixtures I
Plumbing Installation and Fixtures I expands on PLMB 1101 to begin construction systems for residential and light commercial structures. Safe methods of handling and installing piping in accordance with Minnesota State Plumbing Code and general industry accepted standards will be emphasized. Both copper and plastic materials will be utilized in installations. Common fixtures, faucets and valve selection and installation will be included in lab activities. Proper structural support will be included.

PLMB 1112 **2**
Code I
Code I provides an understanding of many of the technical rules of the Minnesota Plumbing Code. Topics included are Minnesota licensing laws, plumbing industry definitions, basic plumbing principles and general regulations, requirements and calculations for plumbing installations, potable water distribution systems, Drain, Waste and Vent (DWV) systems, and various requirements for plumbing fixtures.

PLMB 1122 **2**
Print Reading I
Print Reading I introduces students to fundamental print reading skills. Students will read building plans and pipe diagrams, interpret floor plan elevations, draw isometric views and sketch working drawings. Students will develop skills in estimating plumbing cost for basic residential installations and remodels. Building on these skills, the student will gain knowledge of complex residential pipe diagrams and isometric drawings..

PLMB 1132 **3**
Plumbing Repair and Service
Plumbing Repair and Service will teach how to fix and repair all piping and fixtures in a residential setting.

PLMB 1142 **2**
Materials and Fittings
Materials and Fittings introduces the materials and fittings used in the plumbing trade, including copper, plastics, brass, Pex, Galvanized, cast iron and black iron. The application of these material types will be covered, as well as fitting names and their uses.

PLMB 1152 **4**
Plumbing Essentials
Plumbing Essentials expands on PLMB 1101 for more complex construction systems for residential and light commercial structures. Installation, service and repair of common fixtures, faucets, water treatment, water heaters installation will be included in lab activities. Students will be provided more complex projects and develop solutions to complete system installations, various piping installations applying code requirements.

PLMB 1162 **2**
Code II
Code II builds on knowledge learned in PLMB 1101 and apply this information to gain thorough understanding of Minnesota Plumbing Code. Course includes pipe sizing of residential homes, plumbing license requirements and practical testing to achieve the journeyman license.

PLMB 1180 **4**
Water Piping and Sizing
Water Piping and Sizing will familiarize the learner with water supply and distribution. The course will include Minnesota Plumbing Code rules for the sizing a water supply system. Drawing isometrics will be introduced. Students will apply knowledge and design and build systems utilizing different pipe sizes.

PLMB 1185 **4**
Drainage, Waste and Venting
Drainage, Waste and Venting will familiarize the learner with the different types of drain, waste and vent systems. The course will include the Minnesota Plumbing Code rules for sizing, Drain, Waste and Vent systems.

PLMB 1190 **2**
Plumbing Technology Internship
Plumbing Technology Internship will teach the student how to apply theory concepts and lab skills in a plumbing business. Prerequisite: Satisfactory completion of all Plumbing courses.

POLITICAL SCIENCE (PSCI)

PSCI 1101 **3**
Introduction to Political Science Meets Goal Areas: 05, 08
Introduction to Political Science acquaints students with the fundamental concepts, institutions, principles and procedures of the discipline of political science. The course will provide a brief background in classical political theory through some exposure to the ideas of past political philosophers (such as Aristotle, Machiavelli, Hobbes, Locke, Marx and others). The course also introduces the study of comparative systems through consideration of the governments of Great Britain, France, and Canada. PSCI 1101 is viewed as a general introductory course. The course also counts as a Global Perspective course. Prerequisite: STSK 0095 or placement by multiple measures.

PSCI 1201 **3**
American Government and Politics
Meets Goal Areas: 05, 09
American Government and Politics presents a general survey of the history, philosophy, functions and performance of American national political institutions and processes. This course also emphasizes ethical and civic responsibility. Prerequisite: STSK 0090 or placement by multiple measures.

PSCI 2202 **3**
State and Local Government Meets Goal Areas: 05, 09
State and Local Government presents a general survey of the history, philosophy, functions and performance of American state and local political institutions and processes. Minnesota, Nobles County and the City of Worthington will be examined. This course also emphasizes

ethical and civic responsibility. Prerequisite: STSK 0095 or placement by multiple measures.

PSCI 2210 **3**
Environmental Politics Meets Goal Areas: 05, 10
Environmental Politics examines the political nature of environmental problems and surveys American political institutions and public policies that deal with these problems. The course will also assess and critique current environmental policies. While the major emphasis will be national environmental concerns, certain local and global environmental problems will also be addressed. Prerequisite: STSK 0095 or placement by multiple measures.

PSCI 2280 **0**
Field Experience - Political Science
Field Experience - Political Science offers students paid or unpaid work experiences closely related to their academic and career pursuits. Assists students in gaining skills and realism about job demands and future educational choices. Activities are closely supervised by college instructors and on-the-job supervisors.

PRACTICAL NURSING (PRNU)

PRNU 2295 **1**
IV Skills for Practical Nurses
IV Skills for Practical Nurses is designed to enhance the knowledge of established IV nursing standards of practice and to qualify the licensed practical nurse to initiate and administer IV therapy to adults and adolescents. Information and hands-on practice for the safe insertion, care and maintenance of a peripheral IV catheter will be provided. Administration of IV therapy via a peripheral site will also be discussed.

PSYCHOLOGY (PSYC)

PSYC 1101 **4**
Introduction to Psychology Meets Goal Areas: 05, 07
Introduction to Psychology provides an overview of contemporary psychology. Topics include the biological basis of behavior, sensation and perception, motivation, learning, memory, development, personality theory and mental illness. This psychology course emphasizes biological, ability, age, gender, identity, personality, and cultural and ethnic diversity. This course is a prerequisite for other psychology courses and is a required course for many degree programs. Prerequisite: STSK 0095 or placement by multiple measures.

PSYC 1111 **3**
Psychology of Self Adjustment Meets Goal Areas: 05, 07
Psychology of Self Adjustment uses a cognitive-behavioral approach to achieve personal growth and manage common problems of daily living. Topics include reflection on childhood, development of self-esteem and assertiveness, personal health and wellness, relationships, loneliness and solitude, anger management, and handling death and loss.

PSYC 1150 **3**
Lifespan Developmental Psychology Meets Goal Areas: 05, 07
Lifespan Developmental Psychology describes the ongoing processes in the biosocial, cognitive, and psychosocial domains of human development through the lifespan. Analysis of significant developmental events from psychoanalytic, learning, behavioral, cognitive, and humanistic perspectives are included. Contributions from and applications of research is a core component across all topics. Prerequisites: STSK 0095 or placement by multiple measures.

PSYC 2210 **3**
Basic Counseling Skills Meets Goal Area: 05
Basic Counseling Skills teaches individual interviewing and helping techniques, including attending skills, reflection of content, feeling and meaning, asking questions, giving information, challenging, and action planning. Students record sessions in a lab setting. Prerequisite: PSYC 1101 or consent of instructor

PSYC 2221 **3**
Psychology of Mental Illness Meets Goal Areas: 05, 07
Psychology of Mental Illness provides students with historical and current views of significant patterns of behavior disorders. Examines the etiology of disorders, symptom patterns, assessment and classification, prevention and treatment, and current issues in the mental health field. Attention is given to how social variables such as race/ethnicity, gender, and socioeconomic status affect the determination of abnormality.

PSYC 2225 **3**
Addictive Behavior Meets Goal Areas: 05, 07
Addictive Behavior provides a comprehensive overview of psychological models to understanding addiction. Presents the process of addiction as a sequence which includes: initiation, maintenance, dependence, and change. Also addressed is the prevention of addiction. Describes the biological, social, emotional, and psychological consequences of addictions for the individual and society. Although concentrating on substance-based behaviors (alcohol and drugs) other addictions such as gambling, eating disorders, and compulsive sexual behavior will be considered.

PSYC 2230 **3**
Behavior Modification Meets Goal Area: 05
Behavior Modification introduces basic principles of behavior modification and their application to the modification of maladaptive behavior and the development of adaptive behavior. Development of skills to adapt these principles to address problems of daily living is emphasized. Prerequisite: STSK 0095 or placement by multiple measures.

PSYC 2260 **3**
Social Psychology Meets Goal Areas: 05, 07
Social Psychology provides students with the scientific studies of individual behaviors as influenced by other people and in social contexts. Specific emphasis will be placed on social psychological theories and research findings on such areas as the self-concept, social cognition, attribution theory, social influence, group processes, prejudice and discrimination, interpersonal processes, aggression, attitudes, stereotypes, the relation of self and culture/multicultural.

PSYC 2280 **2-4**
Field Experiences - Psychology
Field Experiences - Psychology offers student paid or unpaid work experiences closely related to their academic and career pursuits. Assists students in gaining skills and realism about job demands and future educational choices. Activities are closely supervised by college instructors and on-the-job supervisors.

RADIOLOGIC TECHNOLOGY (RADT)

RADT 1100 **4**
Introduction to Radiography & Patient Care
Introduction to Radiography and Patient care provides the basic concepts of patient care in radiography as well as introduce radiology, radiology as a career, radiologic technologist roles, and radiologic technology education. The role of the radiographer will be identified as well as basic information regarding making radiographic exposures. The student will be introduced to the specialized modalities of radiography as well as cross-sectional imaging.

RADT 1105 **1**
Radiographic Basics
Radiographic Basics provides the student with an overview of radiography and its role within the health care delivery system. A radiographer's responsibilities will be outlined. Students will be oriented to personnel in diagnostic imaging and to the profession. Basic x-ray equipment design and types of diagnostic imaging examinations performed will be introduced.

RADT 1110 **7**
Radiological Procedures I
Radiological Procedures I provides the student with the knowledge necessary to perform radiographic procedures relative to the upper extremities, lower extremities, shoulder, pelvic girdle, thorax, spine, trauma, surgery, and mobile radiography. Emphasis will be on radiographic terms, anatomy, positioning, manipulation of radiographic equipment and accessories, and related patient care considerations.

Basic techniques in venipuncture, contrast media types, intravenous medication and emergency response will also be included.

RADT 1120 **4**
Radiological Procedures II
Radiological Procedures II provides the student with the knowledge necessary to perform radiographic procedure relative to skull, facial bones and sinus imaging, fluoroscopy, urography, and trauma radiography. Emphasis will be on radiographic terms, anatomy, positioning, manipulation of radiographic equipment and accessories, and patient care considerations related to the covered exams. Prerequisite: RADT 1110.

RADT 1130 **3**
Radiological Exposures I
Radiological Exposures I provides the student with the knowledge of factors that govern and influence image quality. The course emphasis is on image quality through the discussion of factors that affect density, contrast, recorded detail, and distortion. Complex mathematical problems reflect the effect of change in exposure factors and radiographic devices on image quality. Prerequisite: MATH 1111.

RADT 1140 **4**
Radiological Exposures II
Radiological Exposure II implements radiological exposure compensations as well as the effects of each compensation on image quality and the knowledge and ability to process and evaluate radiographic images will be emphasized. Requirements will focus on digital imaging, digital imaging system components, imaging processing, image analysis, image acquisition, and the ability to identify and recognize diagnostic quality. The principle and operation of automatic exposure control is also presented. Advancement in examination difficulty and complexity of mathematical applications will be reflected. Prerequisite: RADT 1130.

RADT 1150 **12**
Clinical Radiography I
Clinical Radiography I applies and analyzes previously learned concepts and theories in radiologic procedures. Focus will be on performance of competency based radiologic procedures, patient care, and demonstration of professionalism during day to day activities within the radiology department. Clinical practice will be designed to allow student to evaluate and perform diagnostic exams on live patients with follow up critique of images. An emphasis on manipulation of radiologic equipment and accessories will also be evaluated. Prerequisites: RADT 1100 and RADT 1110.

RADT 1160 **12**
Clinical Radiography II
Apply and analyze previously learned concepts and theories in radiologic procedures. Focus will be on performance of competency based radiologic procedures, patient care, and demonstration of professionalism during day to day activities within the radiology department. Clinical practice will be designed to allow student to evaluate and perform diagnostic exams on live patients with follow up critique of images. An emphasis on manipulation of radiologic equipment and accessories will also be evaluated. Prerequisites: RADT 1100, RADT 1110 and RADT 1150.

RADT 2210 **2**
Radiological Procedures III
Radiological Procedures III provides the student with the knowledge necessary to perform radiographic procedures relative to angiography and special procedures. Examine previously learned content to provide the student with a comprehensive review of all radiographic procedures. Prerequisite: RADT 1120.

RADT 2220 **4**
Radiological Equipment
Radiological Equipment provides the student with a basic understanding of radiation physics including the structure of matter, electromagnetic energy, electricity, magnetism, electromagnetism, x-ray emission and x-ray production. This course is designed to establish a strong understanding of radiographic equipment including the x-ray tube, x-ray circuit, fluoroscopy, and computed tomography. The content will also provide a basic knowledge of quality control.

RADT 2230 **2**
Radiological Pathology
Radiological Pathology is designed to introduce theories of disease causation and the pathophysiologic disorders that compromise health systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance and management of alterations in body systems will be presented. Prerequisites: RADT 1130 & BIOL 2202.

RADT 2240 **3**
Principles of Radiobiology
Principles of Radiobiology is designed to establish a basic knowledge of atomic structure and terminology, and provide an overview of the principles of radiation protection and interaction with living systems. Also presented are the nature and characteristics of radiation (i.e. its effects on molecules, cells, tissues, and the body as a whole), x-ray production, and the fundamentals of photon interactions with matter. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, healthcare organizations, and the responsibilities of the radiographer for patients, personnel and the public are also incorporated. Factors affecting biological response are presented including acute and chronic effects of radiation. Prerequisites: RADT 1130 & BIOL 2202.

RADT 2250 **3**
Clinical Radiograhy III
Clinical Radiograhy III applies and analyzes previously learned concepts and theories in radiologic procedures. Focus will be on performance of competency based radiologic procedures, patient care, and demonstration of professionalism during day to day activities within the radiology department. Clinical practice will be designed to allow student to evaluate and perform diagnostic exams on live patients with follow up critique of images. An emphasis on manipulation of radiologic equipment and accessories will also be evaluated. Student independence on previously learned exams will be stressed. Prerequisite: RADT 1160.

RADT 2280 **3**
Board Review
Board Review prepares the student to write the national board exam administered by the American Registry of Radiologic Technologists (ARRT). A review of all course work presented in the program with an emphasis on the ARRT exam specifications will be presented. Prerequisite: RADT 2250.

RADT 2290 **1**
Computed Tomography Basics
Computed Tomography Basics is designed to provide a comprehensive review of Computed Tomography and a step by step method of preparation for successful completion of the American Registry of Radiologic Technologists (ARRT) CT Registry Exam. Prerequisite: Registered Radiologic Technologist through the American Registry of Radiologic Technologists

RADT 2293 **1**
Mammography Basics
Mammography Basics is designed to provide a comprehensive review of mammography and a step by step method of preparation for successful completion of the American Registry of Radiologic Technologists (ARRT) Mammography Registry Exam. Prerequisite: Registered Radiologic Technologist through the American Registry of Radiologic Technologist.

BIOFUEL TECHNOLOGY (RNEW)

RNEW 1100 **3**
Process Dynamics
Process Dynamics introduces concepts which deal with physical forces and their relationship to energy through temperature and pressure and are frequently encountered in an operation plant environment. An explanation and understanding of a plant system is crucial to this course. The scientific principles of flow, temperature, pressure heat, gasses, liquids, solids, fluid systems, process dynamics and heat transfer are covered in detail. The curriculum of this course encompasses basic physics and science.

RNEW 1101 **2**
Ethanol Process Fundamentals
Ethanol Process Fundamentals covers the history, rationale, and overall fundamental process of ethanol production. A Process Flow Diagram (PFD) of a typical dry mill ethanol plant will be used to examine the sequence of operation, including residence time, pressures, and temperatures seen in various stages of production. This course will explain the rationale for feedstock and additives used in ethanol processing as well as product and co-product production and use.

RNEW 1102 **2**
Biodiesel Process Fundamentals
Biodiesel Process Fundamentals provides detailed information regarding the overall fundamental process of biodiesel production. The course will include a review of biodiesel chemistry, process engineering, post reaction processing, fuel specification and properties, feedstock preparation, treatment and recovery of side streams, fuel transportation storage and general plant operations.

RNEW 1107 **2**
Industrial Safety
Industrial Safety introduces workplace safety concepts as they are related to federal and state agencies and regulations. Topics covered in the course include recognition and identification of safety issues, governing agencies and industry organizations, and details about voluntary standards.

RNEW 1110 **1**
Low & High Pressure Boiler Systems
Boiler Systems covers fuel combustion principles, steam boiler types and their components. Students will gain an understanding of the equipment, its operation and maintenance to ensure safe and efficient procedures that are in line with regulations and codes.

RNEW 1115 **3**
Mechanical Fundamentals for Process Controls
Mechanical Fundamentals for Process Controls covers the basic functions of equipment such as drive components, pumps, compressors, valves and basic electrical equipment. It explores various methods and the importance of equipment lubrication. Additional topics covered in this course include material handling equipment and procedures. Mechanical Fundamentals explains how equipment is used in systems such as piping systems, heat exchangers, cooling towers, refrigeration, furnace and boiler systems. Startup, shutdown, operation and troubleshooting procedures of various mechanical systems will be explained.

RNEW 1125 **1**
P & ID & PFD Reading
P & ID and PFD Reading covers the symbols and diagrams commonly used on Piping and Instrumentation Diagrams (P & ID) and Process Flow Diagrams (PFD). Focus will be on identifying the types of diagrams, identifying instrument symbols and line symbols used on P & ID's, understanding the types of information typically found on a legend, using a P & ID to locate the components of a system, and reading a PFD to trace the flow paths of a system.

RNEW 1130 **2**
Pollution Control Fundamentals
Pollution Control Fundamentals covers the fundamentals of pollution control in a process plant. Identification of the major sources of pollution, explanation of control devices used to minimize polluting emissions; the importance of reducing emissions and keeping in compliance with State and Federal regulations will be discussed. The state and federal regulatory agencies overseeing permitting and their enforcement procedures will also be covered.

RNEW 1160 **3**
Instrumentation & Control
Instrumentation and Control builds on Mechanical Fundamentals and Process Dynamics. This course will cover the essential elements of a process control system. It will cover common types of electrical and pneumatic signals used for data collection while exploring devices used to measure flow rate, pressure, temperature, level and analytical control. This course will compare fundamental control concepts such as on/off and PID. It will explain how control concepts are used in various control loops of feedback, cascade, ratio and feedforward.

RNEW 1175 **2**
Industrial Water Treatment
Industrial Water Treatment covers the basic understanding of primary water treatment systems and chlorination. Students will be able to describe problems that can be caused by impurities in the water and explain how they can be removed physically and chemically. This course will also familiarize students with the basic concepts of treating industrial wastewater so it can be reused or discharged into the environment.

RNEW 1195 **2**
Biodiesel Technologies and Regulatory Issues
Biodiesel Technologies and Regulatory Issues investigates the underlying research and reaction processes that are used to produce biodiesel. Studying feedstock options coupled with past and present technologies provides foundational knowledge about the industry. The course includes an in-depth review of the ASTM Standard for biodiesel and the regulatory issues that can arise from non-compliance.

RNEW 1300 **3**
Introduction to Traditional and Renewable Energy
Introduction to Traditional and Renewable Energy introduces students to various forms of energy stemming from both renewable and non-renewable sources. Students will study many sources of energy including solar thermal power, solar photovoltaics, bioenergy, hydroelectricity, tidal power, wind energy, wave energy, geothermal energy and fossil fuels. The First Law of Thermodynamics is studied along with conversion and efficiency of various forms of energy. The economics, potential and environmental impact will be covered for each topic.

RNEW 2120 **2**
Ethanol Separation Technology
Ethanol Separation Technology covers the basic principles of ethanol distillation, evaporation and dehydration. Included will be an understanding of the operating components in a distillation system; demonstrable familiarity with startup, cleaning, operating, and shutdown procedures; and the ability to interpret both normal and abnormal operating conditions. The evaporative process and its role in processing plants will also be covered as well as the theory of molecular sieve dehydration and how it is used in the ethanol process. Prerequisite: RNEW 1101.

FOR ADDITIONAL COURSE DESCRIPTIONS ON SMALL BUSINESS MANAGEMENT COURSES (SBMT) GO TO: COURSE OUTLINES AND SEARCH UNDER SBMT.

SBMT 1110 **2**
Organization Planning
In this course the business owner or manager will conduct a self-study of the business and an analysis of the various business systems. The results will be used to begin the process of establishing a new or updated business plan, including a mission statement, vision statement, and business goals.

SBMT 1120 **3**
Business Systems
In this course, the business owner or manager will begin the process of creating or updating a business plan. The course will include an overview of the business planning process, the individual components of a business plan, and the process for building a business plan. A business plan for the business is the desired outcome.

SBMT 1210 **3**
Financial Systems
In this course the business owner or manager will study product pricing for optimizing business profits, budgeting to monitor business revenues and expenses, and cost control options

SBMT 1220 **3**
Financial Management
In this course the business owner or manager will study product pricing for optimizing business profits, budgeting to monitor business revenues and expenses, and cost control options for the small business. The student will also create a break-even analysis of the business and study the effect of different business decisions using a break-even analysis.

SBMT 1230 **3**
Financial Analysis
In this course the business owner or manager will study how to analyze the profit and loss statement, the balance sheet, and cash flow statement using ratio and trend analysis. Prerequisite: SBMT 1210.

SBMT 1268 **2**
Governmental Payroll Reporting for Small Business
This course covers the fundamentals, completion, and analysis of the federal and state employment tax forms and filing requirements.

SBMT 1310 **1**
Conflict Resolution
Covers techniques for resolving conflict and negotiating collaborative solutions in workplace settings. Conflict resolution and negotiation strategies are essential for supervisors and other persons in leadership positions. Emphasis will be placed on selecting and applying conflict resolution and negotiation strategies that are appropriate for a given situation. Students will learn to effectively confront conflict in its early stages and to negotiate solutions beneficial to all persons involved.

SBMT 1312 **3**
Marketing Systems
In this course the business owner or manager will study the 5 P's of marketing, product, pricing, presentation, promotion, and packaging. The business owner or manager will apply them to their business entity. They will also use these concepts to design a marketing strategy to create the desired business image.

SBMT 1315 **3**
Principles of Supervisory Leadership
Assists the student to become better acquainted with realistic problems, which must be confronted along with practical advice for solutions. The focus will be an explanation and translation of management principles and theories into tools that can be used in the everyday practice of supervision.

SBMT 1320 **1**
Innovation and Creativity
Provides learners with an opportunity to explore the essential concepts of accelerated learning. Learners will be exposed to research on "how to learn", as well as examine the process of non-linear thinking. With this information learners will be able to utilize processes for finding business opportunities within their organization.

SBMT 1321 **2**
Marketing Management
Studies the basics of planning an advertising schedule. Topics include budgeting and designing advertisements for specific media. The student will construct both an advertising plan and a budget for the business. Prerequisite: SBMT 1312.

SBMT 1325 **2**
Problem Solving and Decision Making
Provides learners with an opportunity to explore the essential concepts of problem solving and decision-making. Learners will learn how thinking differently can help them solve problems and make decisions. Learners will break complex problems into workable components and will learn to go beyond preconceived limitations when developing solutions.

SBMT 1330 **1**
Interpersonal Skills
Designed to assist learners in improving their one-on-one communication skills. The learner will analyze the variables common to interpersonal communication and learn techniques to overcome barriers to effective communication.

SBMT 1335 **1**
Teamwork
Addresses the context, which contributes to the growth of team based work systems, the essentials for conducting effective meetings and skills necessary for participating in and leading successful teams.

SBMT 1340 **1**
Time Management
Provides learners with an opportunity to explore the essential concepts of time management. The learner will explore ways of dealing with the daily challenge of successfully juggling multiple priorities, which require a clear understanding of individual time management strengths and weaknesses and a well-practiced self managed strategy. The learner will analyze their time management habits and development improvement plans to become a time master.

SBMT 1345 **3**
Finances for the Non-Financial Manager
Provides learners with an opportunity to explore the essential concepts of financial analysis and improve their decision-making skills. This course is for students who have little experience in the field of finance. The students will explore the financial activities practiced by nonfinancial managers who are responsible for resources and interested in improving the financial performance and destiny of their organization.

SOCIOLOGY (SOC)

SOC 1101 **3**
Introduction to Sociology Meets Goal Area: 05
Introduction to Sociology familiarizes the student to basic sociological concepts. Topics include sociological theory, research, culture, socialization, groups, social stratification, social class, gender, race, and family. Secondly, a comprehensive study of society, with analysis of group life, and other forces shaping human behavior. Sociology is the scientific study of human society and social interaction. Prerequisite: STSK 0090 or placement by multiple measures.

SOC 1102 **3**
Social Problems Meets Goal Areas: 05, 07
Social Problems offers students the opportunity to examine societal impact and process of identification; use critical thinking skills for analysis of causation and exploration of potential solutions to present day problems in contemporary societies such as crime and delinquency, discrimination and racism, education, familial issues, government, physical and mental health, poverty, roots of group inequality, war and environmental issues. Explores the significance and current policies of action.

SOC 2100 **3**
Human Relations Meets Goal Areas: 07, 08
Human Relations covers concepts and ideas enabling students to recognize and identify oppression, discrimination, and racism, along with learning techniques for building community in a pluralistic society with its great variety of cultures, value systems, and life styles. Includes study of the cultural content, worldview, and concepts that comprise Minnesota-based American Indian tribal government, history, language, and culture.

SOC 2210 **3**
Marriage and the Family Meets Goal Areas: 05, 07
Marriage and the Family reviews historical and cultural perspectives of American family systems. Assesses the current ideals, functions, stresses and trends of the family. Topics include courtship, factors associated with marital success, roles and role expectations, statuses, alternatives to traditional systems, communication, marital dissolution and cross-cultural patterns. Prerequisite: STSK 0095 or placement by multiple measures.

SOC 2215 **3**
Drugs in Society Meets Goal Area: 09
Drugs in Society explores the history of the use and abuse of consciousness-altering substances like alcohol and other drugs. Sociological theories will be reviewed in tandem with political-economic factors to identify social conditions. Cultural practices involving drugs will be identified, analyzed, and compared to related public problems.

SOC 2224 **3**
Racial and Ethnic Minorities Meets Goal Areas: 05, 07, 08
Racial and Ethnic Minorities examines the relationship of racial and ethnic minorities to dominant American society. Emphasis on the African American, American Indian, Hispanic, and Asian cultures.

Topics include, but not limited to prejudice, discrimination, institutionalized racism, ethnocentrism, segregation, and persons with disabilities. Prerequisite: SOC 1101 or consent of instructor.

SOC 2225 **3**
Abuse in Society Meets Goal Areas: 05, 09
Abuse in Society reviews the historical, cultural, and general perspectives of abuse. Assesses the ideals, functions, stresses, and trends of abuse that result in suicides and homicides where victims tend to be women, children, and older adults. Topics include child abuse, bullying, domestic violence, abusive relationships, legal and ethical issues, and possible solutions to abuse in society.

SOLAR PHOTOVOLTAIC (SOLR)

SOLR 1020 **3**
Introduction to Solar Assessment
Introduction to Solar Assessment introduces students to basics of solar energy and solar site assessment for solar photovoltaic and thermal systems. Students will measure the solar window with a solar Pathfinder (TM) and estimate the effects of climate, system design, and vegetation growth (and removal) on energy production. Using industry-standard hardware, mounting options and equipment, students will propose system designs, model economic and environmental cost and benefits, and report their findings.

SOLR 1030 **2**
Solar Energy Construction Projects
Solar Energy Construction Projects will cover the National Electrical Code (NEC) specifics concerning photovoltaic installation Article 690 and introduces students to basic construction skills installing photovoltaic systems along with safely and carefully works with roofing, how to plan and assemble racking, how solar modules and panels are mounted, and how the remaining solar components are incorporated. Residential systems and ground mount systems will be covered.

SOLR 2020 **3**
Advanced Photovoltaic Systems
Advanced Photovoltaic Systems will introduce photovoltaic (PV) systems design, installation, operation, and maintenance for residential and commercial applications. Students will collect and interpret data. They will apply this data to the design and configuration of grid-tied and standalone system designs. Prerequisites: ELCO 1100 or ELCO 1110.

SOLR 2025 **2**
Photovoltaic Systems Lab
Photovoltaic Systems Lab will cover the National Electrical Code (NEC) specifics concerning photovoltaic installation Article 690. Code-compliant wiring of modules, inverters, charge controllers, and batteries will be explored. Commercial installations and off-grid systems will be covered. Students will plan and execute photovoltaic system installations.

SPANISH (SPAN)

SPAN 1101 **4**
Spanish I Meets Goal Areas: 06, 08
Spanish I assists students in developing proficiency in listening, speaking, reading and writing Spanish, mastering fundamental grammatical concepts, and integrating the culture of the Spanish-speaking world. The course is designed for students with little or no prior language study. Prerequisite: STSK 0090 or placement by multiple measures.

SPAN 1102 **4**
Spanish II Meets Goal Areas: 06, 08
Spanish II continues to increase proficiency in listening, speaking, reading and writing in Spanish, mastering of more complex grammatical concepts including subjunctive mood, and integrating the culture of the Spanish-speaking world. Prerequisite: SPAN 1101, one-two years of high school Spanish, or consent of instructor.

SPAN 1150 **1-3**
Conversational Spanish
Conversational Spanish provides students with the opportunity to use Spanish for specific communicative goals. The situational approach will focus on words and phrases needed to cope with every day, survival situations and will vary according to class need. This course is designed for students with little or no prior language experience. This course could be taken more than once as the topics change. Survival Spanish for Probation Officers; Survival Spanish for Paramedics and EMT's; Survival Spanish for Law Enforcement Officers; Emergency Spanish for Firefighters; Survival Spanish for Correctional Staff; Spanish for Dental Staff; Survival Spanish for School Administrators, Teachers, & Support Staff; Office Spanish for Office Personnel; Doing Businesses in Latin America; Spanish for the Physician's Office; Spanish for Nursing; and other professions are available.

SPAN 2201 **4**
Spanish III Meets Goal Areas: 06, 08
Spanish III provides for a review of grammar and vocabulary study and allows for practice of the more difficult grammatical concepts in Spanish. Interactive activities using authentic text materials, various literary genre, videos in the target culture, thematic cultural units, and written exercises help students to increase proficiency in the four language modalities: listening, speaking, reading and writing. Prerequisite: SPAN 1102, one year of college Spanish, three years of high school Spanish, or consent of instructor.

SPAN 2202 **4**
Spanish IV Meets Goal Areas: 06, 08
Spanish IV integrates the mastery of structural concepts with the study of authentic text materials on a variety of cultural topics, various literary genre, and provides for developing proficiency in the four language modalities. Prerequisite: SPAN 2201, three or four years of high school Spanish, or consent of instructor.

STUDY SKILLS (STSK)

STSK 0090 **2**
Reading Improvement I
Reading Improvement I provides improvement of reading skills for students underprepared for college level reading. The focus is on basic comprehension with additional instruction in vocabulary and word recognition.

STSK 0091 **1**
Basic Math Skills
Basic Math Skills provides individualized assistance to students who need to improve their basic math skills. The course covers fractions, decimals, metric, percent's, ratio and proportions, and solving for "x".

STSK 0095 **2**
Reading Improvement II
Reading Improvement II provides improvement of reading skills for students underprepared for college level reading. The focus is on basic comprehension with additional instruction in vocabulary and word recognition. The student learning outcomes for this course will deepen and enhance those outcomes in STSK 0090 Prerequisite Prerequisite: STSK 0090 or placement by multiple measures.

STSK 0096 **2**
Increasing College Vocabulary
Increasing College Vocabulary is designed for students who need to increase vocabulary and spelling skills for job success and continuation in college. This course is for students who want to gain a better understanding of Standard English.

STSK 1105 **2**
Critical Reading
Critical Reading is intended for students who would like an in-depth study of textbook reading strategies in order to improve their textbook reading comprehension in current coursework. The emphasis in this course is on understanding textbook structure and developing effective strategies for efficiently and critically reading college textbooks.

STSK 1110 **1**
Freshman Seminar
Freshman Seminar enhances the student's adjustment and success with the college experience. Freshman Seminar course provides first-year students with a general orientation and introduction to resources and skills helpful in the transition to college life and to assist in long term academic and personal success. It is designed to facilitate a successful college experience. Students will develop college-level study skills and will learn about college resources to assist them in their personal and academic adjustment to college life. Strategies for a successful college experience, including: time management, studying smart, taking notes from lecture and textbooks, writing, test taking techniques, stress management, learning and teaching styles, preparing speeches, introduction to online learning, navigating D2L, and ITV/distance learning will be covered.

STSK 1135 **2**
Introduction to Digital Literacy
Introduction to Digital Literacy introduces students to the basic elements of Digital Literacy as they develop the technology proficiency, information literacy, and media literacy necessary for safe use of digital technologies vital for success in post-secondary settings as well as the 21st Century workforce. Prerequisite: Students will need to have access to a reliable Internet connection and access to a device which will enable them to use various technologies.

SURGICAL TECHNOLOGY (SURG)

SURG 1110 **2**
Surgical Microbiology
Surgical Microbiology will enable students to prevent the spread of disease and promote wound healing. Students will study the structure and function of microorganisms, pathogenic microorganisms and their diseases along with the methods of transmission. The concept of standard precautions will be explored. Various methods of sterilization and disinfection will be discussed. The student will study wound healing process in conjunction with the body's defense against disease.

SURG 1120 **2**
Surgical Pharmacology
Surgical Pharmacology will enable students to assist in the preparation of medications used in the operating room. The student will distinguish the different uses, routes of administration, side effects, and supplies/equipment needed in the administration of these medication. The metric and apothecary systems of measure will be studied. Students will convert standard time to military time, do temperature conversions, and learn how to prepare a solution. Emphasis will be placed on the legal and safety aspects of drug administration. Prerequisites: SURG 1110 and SURG 1130.

SURG 1130 **5**
Operating Room Theory
Operating Room Theory will enable students to function as an essential part of the medical team providing surgical care to patients in an operating room setting. Students will study the total operating room environment which includes preoperative, intraoperative, and postoperative care. The principles of electricity, physics, Lasers, computers, and Robotics will be covered. In the Laboratory setting, the students will develop fundamental operating room skills, identify instruments, and prepare necessary supplies for surgical case management.
Emphasis will be placed on demonstrating the principles of aseptic techniques as they apply skills inherent to the role of the surgical technologist. The students will observe, practice, and demonstrate these skills.

SURG 1150 **6**
Operating Room Procedures I
Operating Room Procedures I enable students to understand the various types of surgical procedures. Students will apply previous theory courses to specific surgical procedures. Students will study diagnostic procedures and surgical cases to include General Surgery (gastrointestinal, hernia repairs, breast surgery, thyroid & parathyroid, liver &biliary tract), Genitourinary, OBGYN, Ophthalmic, Oral & Maxillofacial, and Plastic & Reconstructive surgeries. Patient positioning, instrumentation, and equipment and supplies necessary to complete a surgical procedure as well as the sequence of surgical procedures will be applied in the lab setting. Students will develop fundamental operating room skills; identify instruments and prepare necessary supplies for surgical case management. This course includes the basic knowledge of electricity, physics and robotics. Emphases will be placed on demonstrating the principles of aseptic techniques as applied to the role of the surgical technologist. The students will observe, practice and demonstrate skills. Prerequisites: SURG 1110 and SURG 1130.

SURG 1151 **4**
Operating Room Procedures II
Operating Room Procedures II enables students to understand various types of surgical procedures. Students will relate the knowledge learned in previous theory courses to specific surgical procedures. The types of cases to be studied will included Otorhinolaryngologic, Orthopedic, Cardiothoracic, Peripheral Vascular surgeries, and Neurosurgery. The areas of anatomy, diagnostic testing, patient positioning, instrumentation, equipment and supplies necessary to complete a surgical procedure and the actual sequence of the procedure will be analyzed. Prerequisites: SURG 1120 and SURG 1150.

SURG 1155 **1**
Operating Room Practices
Operating Room Practices will facilitate the practice of setting up different surgical procedures including Minimally Invasive Surgery (MIS) procedures. The student will prepare for procedures from start to finish. The students will observe, practice, and demonstrate skills in the lab setting. This course is designed to prepare the student for the clinical setting. Prerequisites: SURG 1120 and SURG 1150.

SURG 1160 **2**
Clinical I
Clinical I provides supervised occupational experience in the clinical setting. It applies knowledge acquired in the classroom and laboratory to the development and performance of competencies associated with operating room policy and procedure. Prerequisites: SURG 1120 and SURG 1150.

SURG 1170 **12**
Clinical II
Clinical II provides supervised occupational experience in the clinical setting. It applies knowledge acquired in the classroom and laboratory to the development and performance of competencies associated with operating room policy and procedure, along with reading surgeon preference cards to prepare instruments and supplies to be opened for different procedures. Prerequisites: SURG 1151, SURG 1155 and SURG 1160.

SURG 1181 **2**
Board Review
Board Review is designed to prepare students for the National Board certification exam by the National Board of Surgical Technologist and Surgical Assists. The student will review previous course content with an emphasis on Certification exam specifications to be presented. Prerequisites: SURG 1151, SURG 1155 and SURG 1160.

SOCIAL WORK (SWRK)

SWRK 1101 **3**
Introduction to Human Services: Social Work
Meets Goal Areas: 05, 07
Introduction to Human Services: Social Work introduces students to the field of Social Work, from its historical background to current trends and issues affecting vulnerable populations. Emphasis is given to professional values and ethics. Offers students an opportunity to explore the wide range of roles and areas of specialization unique to the profession, including case management, direct services, counseling, child welfare, community-based mental health, health care, criminal justice, youth work, forensic social work and generalist social work. Prerequisite: STSK 0095 or placement by multiple measures.

SWRK 2250 **3**
Pre-Field Practicum: Social Work Meets Goal Area: 05
Pre-Field Practicum: Social Work provides supervised work experiences in the field of social work. Students, in consultation with field supervisor, select practicum placement in social service agencies

under the supervision of a social worker. Prerequisite: Second year students only. Completion of learning outcomes contract; confidentiality contract; placement agreement; and DHS background check.

THEATER (THTR)

THTR 1101 **3**
Introduction to Theater Meets Goal Area: 06
Introduction to Theatre introduces theater as a collaborative art form. This course is intended to give students a background in theatre history, text analysis, and cultural context, with particular attention to the roles of playwrights, directors, actors, designers, producers, critics, and the audience. Prerequisite: STSK 0090 or placement by multiple measures.

THTR 1102 **3**
Acting for Everyone Meets Goal Area: 06
Acting for Everyone is an introductory course in the practice of acting for the stage. Using the techniques of the actor, the class is designed to help you develop communication skills and confidence that you can carry with you into everyday life. This course is recommended for education majors and anyone who desires a basic introduction to acting.

THTR 1104 **3**
Survey of Musical Theatre Meets Goal Area: 06
Survey of Musical Theatre will expose students to the path of the form from its birth to the Broadway shows of today. These works will include operas, operettas, vaudevilles, reviews, and Broadway Musicals. Significant time will be spent studying major works and songs of the American Musical. Prerequisite: STSK 0090 or placement by multiple measures.

THTR 1105 **1-3**
Theater Production Meets Goal Area: 06
Theatre Production provides students with the opportunity for participation in major productions as actors or technical crew members.

THTR 1106 **1-3**
Theater Production Meets Goal Area: 06
Theatre Production provides students with the opportunity for participation in major productions as actors or technical crew members.

THTR 2105 **1-3**
Theater Production Meets Goal Area: 06
Theatre Production provides students with the opportunity for participation in major productions as actors or technical crew members.

THTR 2106 **1-3**
Theater Production Meets Goal Area: 06
Theatre Production provides students with the opportunity for participation in major productions as actors or technical crew members.

THTR 2122 **3**
Introduction to Film Meets Goal Area: 06
Introduction to Film reviews the technical, historical, dramatic, and ethical elements of modern film.

AUTOMOTIVE TECHNOLOGY (TRAN ALSO SEE AUTO)

TRAN 1100 **2**
Intro to Transportation
Intro to Transportation will define and demonstrate the correct procedures for servicing and maintaining vehicles. Shop safety, use of service manuals and bulletins, writing repair orders, and parts requisitions will also be addressed.

TRAN 1111 **3**
Electrical Fundamentals
Electrical Fundamentals defines the basic fundamentals of electricity and electronics also identifying sources of electricity. Circuits, magnetism, resistance, coils, capacitance, instruments, diodes, and solid-state devices will be introduced. Emphasis is placed on the testing and repair/replacement of the electrical systems, starter motors, and alternators. Students will identify parts, system operation, and component testing.

TRAN 1145 **2**
Engine Performance I
Engine Performance I identifies the proper techniques necessary to diagnose and repair OBDI I computer systems using diagnostic equipment. This course also covers fuel system components testing and repair.

WELDING (WELD)

WELD 1190 **3**
Welding Principles
Welding Principles provides the student with details of welding and cutting processes, terminology, joint design, related areas of shop math, measurement, and reading technical drawings.

WELD 1200 **3**
Blueprint Reading for Welders
Blueprint Reading for Welders presents a thorough foundation for understanding the symbols, practices, and concepts used in prints created for manufacturing. It will present information on blueprint reading using a step by step process to enable students to visualize and interpret blueprints used in industrial settings.

WELD 1210 **2**
Oxy-fuel/Plasma Arc Cutting
Oxy-fuel/Plasma Arc Cutting provides the student with basic knowledge and skills in oxyacetylene cutting and welding and plasma arc cutting.

WELD 1220 **3**
Shielded Metal Arc Welding I
Shielded Metal Arc Welding provides the student with a thorough technical understanding of arc welding, welding safety, arc welding power sources, electrode classifications and selection. It also provides training to develop the skills necessary to make quality shielded metal arc welds on mild steel.

WELD 1230 **3**
Gas Metal Arc Welding I
Gas Metal Arc Welding I provides the student with a thorough technical understanding of Gas Metal Arc welding, welding safety, equipment and set-up, wire and shielding gas classifications and selection. It also provides training to develop the skills necessary to make quality gas metal arc welds on mild steel.

WELD 1240 **2**
Gas Tungsten Arc Welding I
Gas Tungsten Arc Welding I provides the student with a thorough technical understanding of Gas Tungsten Arc welding, welding safety, equipment and set-up, rod and shielding gas classifications and selection. It also provides training to develop the skills necessary to make quality gas tungsten arc welds on non-ferrous metals.

WELD 1260 **2**
Metallurgy and Materials
Metallurgy and Materials evaluates the basic elements of metallurgy and weld-ability as it pertains to commonly welded materials. Instruction will be provided on the weld ability of metals, the effects of welding on metals, mechanical properties of metals, alloys and their properties, applications of various types of metals, metal classification systems, and procedures for welding hard-to-weld metals.

WELD 1270 **2**
Testing Codes & Inspection
Testing Codes and Inspection describes the different types of destructive and non-destructive weldment testing. Emphasis will be placed on major national welding codes that govern the welding industry specifically the American Welding Society Structural Code D1.1 along with the American Welding Society Codes.

WELD 1280 **2**
Intermediate Shielded Metal Arc Welding
Intermediate Shielded Metal Arc Welding will have students perform horizontal, vertical, and overhead welding in accordance with American

Welding Society procedures. Common joint types in various thicknesses are welding using various electrodes. Some sheet metal will be welded.

WELD 1300 **3**
Intermediate Gas Metal Arc Welding
Intermediate Gas Metal Arc Welding will teach students to perform Gas Metal Arc Welding in the horizontal, vertical, and overhead positions in accordance with American Welding Society procedures. Operate power supplies that use shielded gases, short-arc and spray discharge. Identify wire types and sizes, common joint types in various thicknesses are welded.

WELD 1340 **3**
Welding Qualifications Lab
Welding Qualifications Lab teaches students how to determine the requirements of welding codes and specifications for welding qualifications. Emphasis will be placed on the American Welding Society and ASME tests and procedures for ferrous and non-ferrous metals. Performance will be evaluated using visual and destructive testing.

WELD 1350 **4**
Pipe Welding Processes
Pipe Welding Processes provides an introduction to pipe welding processes in accordance with the American Welding Society 1G & 2G standards. Students will learn basic pipe layout and preparation techniques including bevel, quarter mark, cut, fit, and weld basic pipe joints in various positions from hand drawn templates. Cutting techniques will concentrate on manual Oxy-Fuel cutting pipe joints for accurate fit-up. Each pipe joint will be welded and inspected to meet visual inspection criteria. Hands-on welding techniques for Pipe processes using Shielded Metal Arc Welding, Gas Metal Arc Welding and Gas Tungsten Arc Welding of carbon steel pipe in the 1G & 2G position.

ADMISSIONS INFORMATION

Minnesota West Community & Technical College maintains an open-door policy for admissions to the College. If you have graduated from high school or have obtained a General Education Development (GED) Certificate, have scores on the High School Equivalency Test (HiSET) Exam or Test Assessing Secondary Completion (TASC) exams that you are eligible for admission.

If you do not have a high school diploma or General Education Development Certificate, or do not met the test score requirements on the HiSET or TASC exams, you may be admitted at the discretion of the College. Admission to Minnesota West does not guarantee admission to college-level courses nor to specific programs. Some students may require students to demonstrate proficiency in reading, writing or math in order to enroll.

When applying for admission, an application and official transcripts are required. Official high school, GED, HiSET or TASC score reports and college transcripts must be submitted to the student services specialist. Departments may have additional requirements for admission to their programs. Admissions staff will also assist with the application for admissions, information for prospective students, and tours of the campus.

The campus student services specialist provides services pertaining to reciprocity forms, high school enrollments, applications for programs, and transcripts received from previous institutions. Students may apply to programs which lead to:

- Certificate
- Diploma
- Associate of Arts degree
- Associate in Science degree
- Associate in Applied Science degree

Students may be classified as non-diploma or non-degree seeking applicants.

- Part-time students
- Concurrent high school students
- English as a Second Language student (ESL)

If students have attended another college, an official sealed copy of a transcript must be received by the admissions office. Electronic transcripts will be accepted when sent from a secured, verified sender. Students should submit an unofficial copy of their transcript to use in meetings with advisors or instructors.

To Apply to the College
To apply to the College: You must complete the Minnesota West online application for admission.

Admission of Transfer Students
Transfer students must submit the application form and official transcripts from all institutions previously attended directly to the admissions office. Transcripts do not need to be requested from any college that is part of the Minnesota State system. Those transcripts can be retrieved electronically by our admissions office. Students are also required to provide a high school transcript or GED test scores.

Admission of International Students
If you are an international student (non-immigrant, non-refugee, a resident of another country holding a valid student visa), you must apply to Minnesota West using these instructions for the International Admissions application.
The following items are required for you to be considered for admission and must be submitted to the college three months before you plan to arrive:

1. International Student Application for Admission
2. Complete the Certification of Financial Responsibility form. You must come fully prepared to meet all financial obligations for the entire course of study as a student including tuition, fees, books, medical insurance and all other personal expenses in the United States. The CFR must be completed with supporting documentation attached. It is estimated that you will need $12,000 per year for tuition and living expenses. Minnesota West does not provide financial aid for International students.
3. Proof of English Proficiency.
   If your native language is not English, you must present proof of English proficiency in the form of test scores on the Test of English as a Foreign Language (TOEFL). A minimum score of 500 on the paper based test, 173 on the computer-based test or 61 on the Internet test is required for acceptance. The TOEFL may be secured from the American Consulate in your country or it may be taken by applying directly to:
   Educational Testing Service
   Rosedale Road
   Princeton, NJ 08541 USA
   609-921-9000
   http://www.ets.org/toefl
4. Academic Records.
   Official transcripts of your entire academic record in secondary school and college, including grades received each year of study, degree certificates, and examination certificates. Photocopies are not acceptable. Transcripts must be translated in English, and a certified copy of the translation must be attached.
5. Health Insurance Requirements.
   All international students are required to purchase the Minnesota State international student accident and illness insurance plan, unless they can provide written verification that their government or

sponsoring agency accepts full responsibility for any medical claims that might occur.

6. Required immunization form found on Student Forms. All students born after 1956 are required by Minnesota Law to provide proof that they have been vaccinated against diphtheria, tetanus, measles, mumps, and rubella.

Submit all application materials and correspondence to:
Minnesota West Community & Technical College
International Student Office
1450 Collegeway
Worthington, MN 56187

Admissions for New Immigrants
Potential students who are new immigrants must be able to demonstrate English language proficiency before enrolling in programs or courses at Minnesota West. Demonstration of English language proficiency will determine placement in either the regular English sequence or the developmental English courses. The Accuplacer assessment or a similar assessment may be used for appropriate course placement.

Senior Citizens
A Minnesota resident who is 62 years of age or older (Senior Citizen) is entitled to enroll in a credit bearing course for an administrative fee of $20.00 per credit plus fees, on a space available basis.

A Senior Citizen may also enroll in any non-credit open enrollment courses on a space available basis at no charge or may audit a credit bearing open enrollment course on a space available basis at no charge. However, senior citizens auditing a class will be required to pay fees as allowed by MS135A.52. A Senior Citizen enrolled in a closed enrollment contract training or professional continuing education course must pay the regular tuition charge for the course.

In all cases, senior citizens are required to pay for any materials and personal property for the course.

Readmission to the College
Students who have left the College for one or more semesters may re-enter Minnesota West as returning students. Students who have been out of Minnesota West Community & Technical College for two (2) or more years must resubmit an application and any transcripts since enrolled at Minnesota West.

Academic Renewal
Academic Renewal gives an undergraduate student who has been away from Minnesota West Community & Technical College at least five calendar years a one-time opportunity to establish a new grade point average. The policy will not apply if a student has earned a degree, diploma, or certificate from Minnesota West for the period in which they are asking for a fresh start.

Students who seek a fresh start must meet the following conditions:

- The student must not have been enrolled at Minnesota West for a minimum of five consecutive years prior to the point of the fresh start.
- Upon readmission, the student must successfully complete 15 credits at Minnesota West with no grades below C prior to applying for the fresh start.
- If approved, the fresh start will be indicated on the transcript. All prior grades and credits will not apply to academic GPA, credits attempted and credits earned, but will be used for calculating Satisfactory Academic Progress, Grade Point Average, and completion percentage for financial aid purposes. The student's record will reflect all original courses attempted by the student.

Special Student Status
Special students are all students not working on a degree program and not accepted into the College. Special students are frequently part-time students. A student may earn no more than eight credits without making application to the College.

- Special student registration should be completed prior to the first day of scheduled classes each term.
- Special students are encouraged to register with an advisor to assist them with their program.
- All credits earned in the special student classification will be maintained as a permanent record of the College and will be considered for application toward a diploma or degree program upon admission to the College.

Visiting Student Status
Visiting students are all students who are not seeking a degree at Minnesota West, but are currently admitted as degree-seeking students at another college that is part of the Minnesota State system. Visiting students will not be required to apply for admission, but must comply with all course restrictions, such as a course prerequisite, placement test score, or major.

Post-Secondary Enrollment Options (PSEO)

The Post-Secondary Enrollment Options Program is a state-sponsored program that allows qualified sophomores, juniors and seniors to take college-level courses that may apply to both high school graduation requirements and a college degree. It is intended to increase the range and depth of academic options for high school students.

Registration Dates

- Fall semester registration opens on April 1 for PSEO students

- Spring semester registration opens on November 1 for PSEO students

High school students should carefully consider their participation in this program before applying for admission. Students should discuss participation in the PSEO program with their parents and high school counselor/principal. **Students should notify their high school by May 30th of their intent to enroll in PSEO for the upcoming school year.**
For eligibility and admissions refer to our website PSEO: Admissions

Immunization Policy

Minnesota Law (MS135A.14) requires that all students born after 1956 or who graduated from a Minnesota High School prior to 1997 and enrolled in a public or private post-secondary school in Minnesota must be immunized against diphtheria, tetanus, measles, mumps, and rubella. The student will provide proof of immunization by completing the Immunization Record for Students Attending Post-Secondary Schools form prior to registering for classes. This form can be obtained from the campus resource specialist.

Exceptions:
This form need not be completed by students who are enrolled for only one class during the full academic semester or for extension, correspondence or online courses only. Students may also be exempt for medical or conscientious reasons.

Transfer students from a different Minnesota college are exempt if transcripts or other information from the previous school indicate that the student has met immunization requirements.

Assessment/Placement

Minnesota West is committed to institutional improvements and assisting all students in realizing their potential. For this reason, student assessment is part of the College's educational program. Students participate in a series of assessment tests and surveys designed to assist college personnel in accurate advisement and course placement and to gather information on student satisfaction with college programs and services.

Minnesota West uses multiple measures to determine placement in courses with reading, English, and math requirements. New students are required to complete the Accuplacer, to assess their readiness to function effectively within college level curriculum, unless the need is waived by other measures. Other measures used to meet assessment standards include qualifying college coursework, ACT, MCA, or SAT scores and high school GPA. Minnesota West will not require an individual to take a remedial, noncredit course in a subject area if the individual has met the qualifying college ready standards in that subject area.

Students will be given reasonable time and opportunity to review materials provided by the college covering the material to be tested. This material will include a sample test. An individual who is required to take a remedial, noncredit course as a result of a test given by a Minnesota West will be given an opportunity to retake the test at the earliest time determined by the individual when testing is otherwise offered. Minnesota West will provide an individual with study materials for the purpose of retaking and passing the test.

Orientation

A New Student Orientation is available and should be completed prior to attending an Advising/Registration event or meeting with an Advisor. Students will receive information on advising and topics related to registration and academic and student life at Minnesota West. Student advising/registration sessions are held for new students prior to the beginning of each term. Contact the Communication Center, campus, or go to our website for Advising/Registration dates and times.

Registration

Time of Entrance

Students may have multiple opportunities for entrance to Minnesota West Community & Technical College. Check with the program or major of choice for admission requirements. It is recommended that high school seniors make application for admission during their senior year and include with their high school transcript a current schedule of classes.

Registration refers to the process of signing up for classes. The registration procedures vary depending upon whether a new or continuing student is in a degree, diploma or certificate program or is taking classes but not pursuing a degree, diploma or certificate.

New students who have completed the application for admission process will be scheduled for an orientation/advising session. During orientation/advising, advisors will meet with students to assist in selecting appropriate courses. At the conclusion of this session, registration begins.

State Residency Requirement

Classification as State Residents. Students who meet one or more of the following conditions on the date they

apply for admission to a state college or university shall be classified as residents of Minnesota.

a. Students must have resided in Minnesota for at least one calendar year immediately prior to applying for in-state tuition or are dependent students whose parents or legal guardian resides in Minnesota at the time the student applies. Residence in Minnesota must not be merely for the purpose of attending college.
b. Students are Minnesota residents and can demonstrate that they were temporarily absent from the state without establishing residency elsewhere.
c. Students moved to the state for employment purposes and, before moving and before applying for admission to a public postsecondary institution, accepted a full-time job in the state, or students who are spouses or dependents of such persons.

Procedure

Domicile is a person's true, fixed and permanent living place. Domicile is the place to which a person intends to return after temporary absences. A person may have only one domicile at a time.

1. **Demonstration of Domicile and Factors to be Considered**. In order to be reclassified as a Minnesota state resident, a student must first demonstrate the establishment of domicile in Minnesota as described in this part.
2. **Required Period of Residence.** A student must have resided in Minnesota for a continuous period of one calendar year immediately prior to applying for reclassification, and residence in Minnesota during this period of time must not have been solely or primarily for the purpose of attending a college or university
3. **Other Factors**. Each of the following additional facts and circumstances may be considered in the evaluation of a petition for a change in state residency, and other factors not listed may also be considered. The existence of any one of these factors is neither necessary nor sufficient to form the basis for a decision. It is the student's responsibility to provide documentation or evidence of any factors to be considered in the reclassification decision.
    a. Continuous presence in Minnesota between academic terms or other periods when not enrolled as a student.
    b. Registration as a voter in Minnesota.
    c. Ownership of a home in Minnesota.
    d. Domicile of the student's spouse in Minnesota.
    e. Registration of the student's automobile in Minnesota.
    f. For a dependent student, domicile in Minnesota of the student's parent or legal guardian.
    g. Evidence of the intention to acquire a domicile in Minnesota.
    h. Sources of the student's financial support are generated within Minnesota.
    i. An offer of employment in Minnesota to begin after the student's projected date of college or university graduation.
4. **Decision.** A student's petition for reclassification shall be considered and a decision made within one week of receipt of petition and all necessary documentation. A student whose residency is changed to that of a Minnesota resident shall be charged the resident tuition rate effective at the beginning of the term of enrollment following the date the petition was submitted. Classification of a student as a Minnesota resident shall apply to all Minnesota State colleges and universities.
5. **Appeal**. Students may appeal a decision not to reclassify a student as a Minnesota resident by requesting their initial petition be forwarded to the college provost for additional review. The provost's decision shall be final.

Tuition and Fees

Tuition and fees for credit bearing courses at Minnesota West are established by the Minnesota State Board of Trustees. Future and current students are encouraged to visit the College web site for the most current tuition and fees information.

Reciprocity

For students who live in a state that has a reciprocity agreement with Minnesota, tuition and fees will be based on their home state's negotiated rate. Students from Wisconsin and North Dakota need to apply to their home state to ensure the negotiated tuition rate. Students from South Dakota need to complete an application and submit it to the campus they plan to attend. Contact the Campus Resource Specialist for assistance.

Paying Tuition & Fees

Due dates for paying tuition and fees each semester are found on the Student Calendar. It is important that you read this notice regarding tuition payment. The college does not mail tuition statements – you can review your account online using your e-Services Student account.

Choose one of the following options for paying your tuition and fees:

Pay online. Use your student e-Services Student account. Online payments are accepted at any time 7 days a week. You make full or partial payments with a credit card or e-check.

- Pay in installments. Set up a tuition payment plan with Nelnet Campus Commerce.
- Pay by mail. Remember to include you student ID on any payment sent to the campus business office.
- Pay in person. Payments are accepted at the campus business office during regular business hours. Payments may be made with a credit or debit card, check or cash.

Third-Party Billing
When a student's tuition, fees and/or bookstore purchases are billed directly to an outside agency or organization, the process is termed "third-party billing." The College agrees to defer the appropriate college costs and collect payment directly from the agency or organization on behalf of the student. The College must receive authorization from the sponsoring agency or organization before third-party billing can be processed. Students are ultimately responsible for all college costs incurred.

Registration Cancellation for Non-Payment
Students who have not paid their tuition and fees by the payment deadline will have their class registrations cancelled unless one of the following conditions is met:

- Student has made a down payment of 15% or $300.00, whichever is less.
- Student has an active Nelnet tuition payment plan.
- Student has completed the financial aid application and has an ISIR on file with the College (completed FAFSA using the Minnesota West code of 005263)
- Student has provided the College with scholarship or third party authorization for payment of tuition.
- Student is a PSEO student.

Students in jeopardy of having class registrations cancelled will notice a message on their E-services dashboard notifying them that they have not met the financial requirements necessary to remain registered after the tuition due date. Seek assistance early to ensure that class registration will not be cancelled

Limited circumstances could allow a student to have tuition and fees deferred for a short period of time. Students who believe they have extenuating circumstances that could be considered for deferment must contact the business office. Deferment criteria are well defined. Not all requests for deferments will be granted.

Late Fee
A $30.00 late fee will be assessed to accounts that are not paid by the 25th day of the semester. No late fees will be charged if the payment plan has been implemented by that date. The late fee will also apply to resale activity.

Non-payment
Non-payment of the account will result in submission of the outstanding balance to the Minnesota Department of Revenue Collection Division for further action. Students having outstanding accounts of $501.00 or more will not be permitted to register for a subsequent term. Students should not rely on the College to drop them from courses.

Schedule Adjustments - Drop/Add

Terms three weeks or greater in length:
Minnesota West students may drop courses within the first five days of a term without obligation. For purposes of this policy a term is defined as fall semester, fall late start, spring semester, spring late start, summer session I and summer session II. Students must drop/add through eServices. A 100% refund of tuition and fees shall be provided to a student who drops on or before the fifth day of a term. Students will be obligated for any courses dropped after the fifth day of a term.

Courses less than three weeks in length:
Students are entitled to have the opportunity to attend one class session without obligation. Students who are registered for courses which are less than 3 weeks in length will have one business day after the first class meets in which to drop courses without obligation. A 100% refund of tuition and fees shall be provided to a student who drops a course less than three weeks in length on or before one business day after the first class meets. Students will be obligated for any course dropped after the first business day following the first class session.

Financial Aid Implications:
If a student is eligible for federal financial aid (Title IV) and he/she completely withdraws from school during a period of enrollment, he/she is entitled to aid based on the percentage of the period of enrollment he/she attended. When a student withdraws from all courses prior to completing 60% of the semester, the school is required to determine the amount of the federal financial aid the student has earned. If a student has been disbursed unearned aid, he/she must repay it. If a student has earned aid which has not been disbursed, he/she is eligible to receive those funds as a post-withdrawal disbursement. If any funds are remaining after the return of Title IV aid, they will be used for repayment obligations for Minnesota West Community & Technical College funds, State funds, and other private sources. If an unpaid balance exists, all aid sources will be repaid before any funds are returned.

Refunds of Institutional funds less any federal Title IV

aid funds are subject to be returned to State and Local aid programs which require a return of funds. The funds are returned according to the ratio of the aid program award to the total Non-Title IV Aid package.

Late Registration

Registration for classes will be allowed through the first five instructional days of a term. For purposes of this policy, a term is defined as fall semester, fall late start, spring semester, spring late start, summer session I, and summer session II. Registration for courses which are less than 3 weeks in length will be allowed through one business day after the first class meeting date. Registration after these deadlines will require consent of the instructor, providing space is available.

Withdrawals

Students may withdraw from a course through the date on which eighty percent (80%) of the days in the academic semester have elapsed. For courses not on a standard academic semester schedule, the final date for official course withdrawal shall be the date on which eighty percent (80%) of the instructional days for the course have elapsed.

Students withdrawing from the college after registering for classes must officially withdraw with the campus registration office or online through eServices. A course from which the student withdraws will appear on their academic transcript with a W and will count against their completion percentage for Satisfactory Academic Progress.

Minnesota West will refund tuition and fees for students who totally withdraw in accordance with the following schedule:

1st to 5th class day - 100%
6th to 10th class day - 75%
11th to 15th class day - 50%
16th to 20th class day - 25%
After the 20th class day - 0%

Summer sessions and other terms at least three weeks but less than ten weeks in length:

1st to 5th class day - 100%
6th to 10th class day - 50%
After the 10th class day - 0%

Terms less than three weeks in length:
1st class day of term – 100%
2nd and 3rd class day of term – 50%
After the 3rd class day – 0%

Financial Aid Implications

Federal regulations state that students who withdraw after receiving federal financial aid may be required to return a portion of the aid received. Students considering withdrawing from the college should consult an advisor or financial aid specialist before withdrawing from the college. The Minnesota State Grant recalculates throughout the term and may result in a student either receiving an increased or a decreased Minnesota State Grant award. Any student considering withdrawing from a course or courses should speak with a campus financial aid specialist to determine both the academic and financial effects of a withdrawal.

Students in attendance after the 60% point of the term will be considered to have earned all financial aid.

Administrative Withdrawals

The College reserves the right to administratively withdraw students for non-attendance. Notification will be sent students who are administratively withdrawn. There will be no reduction in tuition and fees.

Alternative Methods of Earning Credit

Students may be granted credit toward program completion for prior work, education, and life experiences, which are deemed equivalent to the program requirements.

Earning credit may be achieved through one of the following options: Advanced Placement (AP), College Level Examination Program (CLEP), Competency Based Education (CBE), or Course Test Out.

1. Credits received through alternative methods count toward graduation requirements but are not counted in Grade Point Average or minimum semester credit completion calculations and are not counted for financial aid status.
2. Responsibility for possessing and retaining the content knowledge and skills required by course requirements for which alternative credit is granted rests with the student.
3. Alternative Methods of Earning Credit procedures do not supersede the time frames for drop/add, withdrawal, or any refund of tuition.
4. Credits earned by these alternative methods may or may not be accepted by other institutions.

- **Advanced Placement (AP)**

It is the policy of Minnesota West Community & Technical College to award college credit to students who attend Minnesota West Community & Technical College and have achieved a score of 3, 4, or 5 on the Advanced Placement (AP) examination(s). Credit may be given for a specific college course if a test covers substantially similar material. If the test material does not match an existing course, students may be given elective credits. Students are provided information on AP examination policies and procedures in the college catalog and on the college website. The college policy and procedure for Advanced Placement can be found on the Minnesota West Policies page.

Advanced Placement equivalency charts are available at Transferology to assist students in their educational planning. There is no limit to the total number of credits a student may earn through AP examinations. Credits earned through AP examinations are not resident credits and may not be used to satisfy resident credit requirements for graduation.

1. The student requests an official AP score report from the College Board be sent to Minnesota West Community & Technical College. Minnesota West Code: 6945
2. The AP scores are received and reviewed by an advisor.
3. An equivalency credit form is completed and transcribed for each student.
4. The appropriate signatures are obtained on the equivalency credit form.
5. The student is notified of the number of credits that will be granted upon enrollment at Minnesota West.
6. AP credits will be recorded on a transcript once the student has registered for classes at Minnesota West.

- **College Level Examination Program (CLEP)**

It is the policy of Minnesota West Community & Technical College to award college credit to students who attend Minnesota West Community & Technical College and have achieved the minimum required score as outlined in the equivalency chart on Transferology. Credit may be given for a specific college course if a test covers substantially similar material. If the test material does not match an existing course, students may be given elective credits. Students who have enrolled in a comparable class at Minnesota West or another institution are not eligible to receive credit through CLEP for the same course. Students are provided information on CLEP examination policy and procedures in the college catalog and on the college website.

An equivalency chart for CLEP credit is available at Transferology to assist students in their educational planning. There is no limit to the total number of credits a student may earn through CLEP examinations. Credits earned through CLEP examinations are not resident credits and may not be used to satisfy resident credit requirements for graduation. The Minnesota West - Worthington Campus is a National Test Center for CLEP. Students can contact Student Services at the Worthington Campus for cost information and to schedule a test. More information on other test centers and CLEP tests can be found at http://clep.collegeboard.org/.

1. The student requests an official CLEP score report from the College Board (www.collegeboard.com) to be sent to Minnesota West Community & Technical College. Minnesota West Code: 6945
2. The CLEP scores are received and reviewed by an advisor.
3. An equivalency credit form is completed and transcribed for each student.
4. The appropriate signatures are obtained on the equivalency credit form.
5. The student is notified of the number of credits that will be granted upon enrollment at Minnesota West.
6. CLEP credits will be recorded on a transcript once the student has registered for classes at Minnesota West

- **Competency Based Education (CBE)**

Competency Based Education refers to learner-demonstrated knowledge, skill, and ability to perform a task or function. The learner uses prior experiences to support course competencies.

There is a $200 initial fee that includes career planning, development of an academic plan, and the application. Thereafter, regular tuition per credit will be assessed.

Students may be eligible to earn up to 44 credits for prior learning from work, volunteer services, conferences, workshop attendance, in-service training, and a vocational interest.

- **Course Test Out**

Students who can demonstrate competence in specific disciplines may earn college credit by testing out of college courses with Minnesota West Community and Technical College. Students must initiate the Course Test-Out process by working with appropriate instructors and then completing a Course Test-Out Award Recommendation Form. Students should check with an advisor, instructors, and campus registrars to see if Course Test-Outs are available. Course Test-Out is not an option for all courses.

1. A fee of $40 per lecture credit and $65 per lab credit payable to Minnesota West Community & Technical College is required prior to completing a Course Test-Out exam. This fee is nonrefundable even if examinees do not pass exams and do not receive credit for the course.
2. Course Test-Outs must be completed at least ten days prior to the start of the semester or after the fifth day of the semester; however, the President or designee has the authority to allow a faculty member to grant a Course Test-Out at any time if circumstances warrant.
3. Testing out is not an option for students who desire to earn credit for courses previously attempted. Course Test-Outs cannot be used to improve grades for courses previously completed.
4. Students who fail a Course Test-Out exam must complete the course to fulfill graduation

requirements. Failing Course Test-Out grades will not be recorded on transcripts.
5. Course Test-Out exams are instructor-generated to reflect the objectives of the course. Only grades of "C" or higher will be recorded as credit (CR).
6. Credits earned by the Course Test-Out option are not computed in a student's GPA, nor will they count towards the enrollment figures of the college. Financial Aid is not available for Course Test-Out credits.
7. Course Test-Out credits will not be recorded on a transcript once the student has registered for classes at Minnesota West.

- **School to Work Articulated Courses**

Minnesota West Community & Technical College participates in the school to work program and has entered into agreements with several area high schools. Students enrolling in articulated high school courses and successfully meeting specific criteria for each course may be eligible to receive credit at the College. Credit will be granted for competency mastered within the preceding two years at a skill level of "B" or better on a grade scale of "A-F". Credit will only be awarded for articulated high school courses in which the student has met the criteria after the student has enrolled in and successfully completed 15 credits at the College.

- **International Baccalaureate Credit**

It is the policy of Minnesota West Community & Technical College to award credit for the International Baccalaureate (IB) programs completed by students who subsequently attend Minnesota West Community & Technical College. The examination for the diploma covers six subjects, three or four of which must be at a higher level and others at the subsidiary level. Students may present a full IB diploma or a certificate recognizing specific higher level or subsidiary level test scores. Those students completing a standard level course of 150 hours will earn three (3) or four (4) credits as appropriate. Students completing a higher level course of 240 hours will receive six (6) or eight (8) credits as appropriate. Students are provided information on IB examination policies and procedures in the college catalog and on the college website.

An equivalency chart for International Baccalaureate (IB) is available at Transferology to assist students in their educational planning. There is no limit to the total number of credits a student may earn through IB examinations. Credits earned through IB examinations are not resident credits and may not be used to satisfy resident credit requirements for graduation.

1. The student requests an official IB score transcript from the International Baccalaureate Organization be sent to Minnesota West Community & Technical College.
2. The IP scores are received and reviewed an advisor.
3. An equivalency credit form is completed for each student.
4. The appropriate signatures are obtained on the equivalency credit form.
5. The student is notified of the number of credits that will be granted upon enrollment at Minnesota West.
6. IB credits will be recorded on a transcript once the student has registered for classes at Minnesota West

Other Nationally Recognized Examination Programs

It is the policy of Minnesota West Community and Technical College to consider awarding credit for nationally recognized examination programs such as Dantes Subject Standardized Tests (DSST), Thomas Edison College Examination Program (TECEP), Excelsior Examinations, New York Foreign Language Proficiency, and National Occupational Competency Testing Institute (NOCTI). Credits earned through a nationally recognized examination are not resident credits and may not be used to satisfy resident credit requirements for graduation. Official score report or transcript for each of the above nationally recognized examination programs is required for transfer evaluation.

1. The student requests an official score report from the appropriate testing service be sent to Minnesota West Community and Technical College.
2. The score reports are received are reviewed by appropriate college staff.
3. An equivalency credit form is completed and transcribed for each student.
4. The appropriate signatures are obtained on the equivalency credit form.
5. The student is notified that credit has been granted.
6. Credits granted will be recorded on a transcript once the student has registered for classes at Minnesota West

Military Training

It is the policy of Minnesota West Community and Technical College to consider awarding college credit from the student's military transcript using the "ACE Guide to the Evaluation of Experiences in the Armed Forces." The Minnesota West transfer policy will apply to military training transcripts. See Minnesota West Policies.

1. The student requests an official military transcript through the Joint Services Transcript (JST) system or the Community College of the Air Force be sent to Minnesota West Community and Technical College.

2. The student's declared degree goal will be used as the transfer evaluation base. If the student changes his/her degree goal, the student is responsible for seeking information on the application of credits toward the new degree goal.
3. The student should make an appointment with the program advisor.
    a. A copy of the official transcript should be present when meeting with the program advisor.
    b. The student's assigned program advisor will review any technical credits to ascertain their validity within the student's major study.
4. If the transcript contains general education courses, the Campus Resource Specialist will forward a copy of the official transcript to the College Registrar for review. The College Registrar will verify applicability of transfer credits and respond back to the Campus Resource Specialist.
5. Military credits will be recorded on a transcript once the student has completed 12 credits at Minnesota West.

Academic Information

Attendance

Students should adhere to the attendance policy as stated on each course syllabus. It is the student's responsibility to check with each instructor concerning assignments, projects, or work missed during and absence.

Definition of College Credit

A college credit is a unit of measure that is used to quantify progress in or completion of a college course, program, or degree. A credit comprises elements of both time and academic achievement. In higher education, one semester credit generally involves 45 hours of activity. A lecture credit generally is comprised of 15 hours of classroom instruction from a qualified instructor, and an expectation of an additional 30 hours of student supplemental study or activity outside of the classroom. A lab credit would generally be comprised of 30 hours of laboratory instruction from a qualified instructor with an expectation of an additional 15 hours of supplemental study or activity by the student outside the classroom. An On-the-Job (OJT) credit would involve 45 hours of training at an actual job location, working for an employer, under the supervision of a qualified instructor. All credits would require assimilation of specified knowledge and skills comparable to and consistent with learning objectives established for similar courses and levels at other accredited institutions of higher learning.

Advances in communication technologies have affected how colleges award credit. Distance education courses, such as those offered on-line, stress assimilation of knowledge and skills more than time spent in a classroom. Students taking such courses are expected to acquire equivalent knowledge and skills by devoting more time to independent activities designed and directed by qualified faculty than they would for an equivalent course on campus with an instructor.

A college may grant or waive credit for a course in which the student does not enroll if the student can document a direct correlation between his or her life experience and the prescribed faculty-developed coursework. The student must establish that his or her experience was equivalent or superior to the classroom experience as well as demonstrate mastery of the course's learning objectives in a manner determined by appropriate department faculty.

Dean's List and Honors

To be eligible for the semester Dean's list and/or honors, students must meet the following requirements:
1. Be a full-time student enrolled in a minimum of 12 credits
2. Earn 12 credits of course work within the A-F grading system. Credits with Pass/Fail grading methods do not count towards the 12 credit minimum.
3. Earn a 3.5 GPA.

Online/Distance Learning

Student Responsibilities

Distance Learning

Distance learning occurs when the student and instructor are separated by distance, time and/or location. Minnesota West provides avenues for distance learning for students; interactive television (ITC), zoom rooms, and online courses. ITV courses are offered at the same time in different locations.

Interactive Television (ITC)

Interactive Television and zoom rooms are used extensively at Minnesota West. This technology provides students with a broad range of classroom experiences that might not otherwise be available. Using state-of-the-art two-way video conferencing, instructors and students are brought together in full video and audio. In many cases, instructors enhance their teaching with technical tools that are available in these specially equipped classrooms.

When a class lecture or lab is being recorded for any reason, students will be informed that a recording is

taking place. Students will be advised as to the purpose of the recording, how it will be used, and the process for destroying of the recording. Students wishing to record a class must have written permission from the instructor.

Minnesota West Online Courses
At Minnesota West, efforts focus on developing internet based courses that parallel campus courses. Online courses at Minnesota West are taught by college faculty who work with students throughout the duration of the course. Instructors apply the same rigorous academic standards for success with an Online course as they do in their traditional classroom courses. Online courses are delivered through Minnesota West's online learning management system Desire2Learn Brightspace.

All students are enrolled in an Introduction to Online Learning course. It is recommended that you review this course before you take an online course.

To obtain the maximum benefit of online courses, it is the student's responsibility to be actively engaged in the online learning experience by:

- attending online classes per the instructor's requirements, participating in online discussion, and setting aside time for online coursework
- proactively seeking assistance when needed

For information, see Minnesota West Online.

Grading System

At the beginning of each semester, students must be informed by their instructor as to how students will be graded in each course. If the information is not provided by the faculty member, it should be requested.

Pass/Fail Policy
A student may request a "pass" (P) grade for any class in which he or she is enrolled. The "P" grade must be requested by the student ten school days prior to the end of the term. The "P" grade indicates the student has performed at a passing level. Passing level is interpreted as being a grade of "C" or better. A grade of C- is not considered passing. Any student who achieves less than "C" level work will receive an "F" on his/her transcript. A student may have a total of 20% of his or her credits with a grade of "P". It is not recommended that a student request a "P" grade for any course that will apply toward a major or minor.

Right to Alternative Complaint
These procedures do not deny the right of any individual to pursue other avenues of recourse, which may include filing charges with the Minnesota Department of Human Rights, initiating civil action or seeking redress under state and federal law.

Last Date of Attendance

Last Dates of Attendance are entered through faculty eServices. It is expected that faculty will enter a date into this field for students who have quit attending or mark the check box for students who have never attended but have not withdrawn from their class. A grading symbol of "F" will automatically be entered for any student for which a last date of attendance is entered. A grading symbol of FN will be automatically entered for any student marked as never attending.

Students will be allowed to submit an official withdrawal from the course if doing so falls within the withdrawal deadline per policy 5.12.0. For courses where faculty have reported that the student started but quit attending, the Registrar's Office will then change the "F" to a "W" and enter the Last Date of Attendance as the date the official withdrawal form is submitted to the registration office. For courses where faculty have reported the student as never attended, the FN will be changed to a W and the last date of attendance shall not be changed.

The following grading system is used at Minnesota West to report academic achievement and to compute the student's grade point average.

Letter grade	Meaning	Grade Point Value per Credit Hour
A	Excellent	4
A-		3.67
B+		3.33
B	Above Average	3
B-		2.67
C+		2.33
C	Average	2
C-		1.67
D+		1.33
D	Below Average	1
D-		.67
I	Incomplete	
FN	Never Attended	No grade point value
F	Failure	
NC	No Credit (assigned only to courses numbered below 100 which are not passed)	No grade point value earned

P	Pass - C or higher grade must be earned to receive a grade of P. C- is not considered passing.	Earned credit but no grade point value
W	Withdrawn	No earned credit
AU	Audit-no credit earned	No grade assigned or grade point value
IP	In Progress	No grade assigned at this time
Z	Course registered for but grade not yet assigned	No grade assigned
CR	Credit by Test Out	No Grade point toward GPA

Definitions/Conditions:
Grade points: A letter grade is assigned at the end of a semester for each course in which the student is enrolled. A grade point value for each credit in the course is assigned to each letter grade.

Grade Point Total: Grade point total is the sum grade points earned as determined by multiplying the grade point value of the grade by the number of course credits.

Grade Point Average: Grade point average (GPA) is the student's grade point total divided by the grade point credits. Each grade report shows the student's GPA for the term and cumulative GPA since admission. "P" does not carry a grade point value and, as such, is not calculated in the GPA. A "P" will not improve the student's GPA. However, the credits count toward registered credits.

Credit: The unit by which academic work is measured.

Registered Credits: The total number of credits for which a student is officially enrolled at the end of the registration drop period each term.

Completed Credits: Completed credits include A, B, C, D, P, and F. They do not include "I" (incomplete), "W" (withdraw), FW (no grade point value), audit, no credit, or drops (classes dropped during the first days of class). Completed credits may qualify for retroactive payment of financial aid.

Earned Credits: Earned credits are successfully completed credits that count toward the required percentage of completion. Earned credits include only A, B, C, D, and P.

Incomplete: The mark "I" is a temporary grade that is assigned only in exceptional circumstances. An "I" grade will automatically become an "F" grade at the end of the next semester. Faculty has the option of setting an earlier completion date.

Repeat Credits: Credits awarded when a student repeats a course in order to improve a grade. A student may repeat a course two times and the most recent grade will become the grade calculated for GPA purposes. If a student chooses to take a course more than three times, the third grade and all subsequent grades in that course will be averaged into the GPA.

Developmental Credits: Credits awarded for coursework below the course prefix 1000. Student may receive financial aid for developmental credits up to a maximum of 30 semester hours.

Transfer Credits: Credits that are accepted by the College. Accepted transfer credits are not included in the calculation of GPA, but are used in the calculation of the 67 percent completion rule.

Cumulative Credits (Cumulative attempted CUMATT on transcript): Cumulative credits are the total number of credits registered for all terms of enrollment at the College, including summer terms and terms for semesters for which the student did not receive financial aid.

Audit: Term used to identify a course taken by a student who wishes to obtain the information presented but does not wish to earn credit. Students who audit a course are not required to complete assigned work or take written examinations. Audited courses do not count toward Cumulative Credits toward graduation and do not figure into the grade point average. Audits are designated by the grade of AU on the transcript. To register for an audit, notify the registrar of intent at the time of registration so the appropriate designation may be made. Audits are allowed on a space available basis only. Full tuition and fees must be paid. No financial aid is available for classes taken for audit.

Grade Appeals

In the case where a student disputes the grade he/she has received in a particular course, class or assignment, the student's first recourse is to meet with the instructor to discuss their concerns of the grade. (See Student Handbook) If no resolution between the instructor and the student can be met the student should then refer to the grievance procedures as found under Student Rights and Responsibilities in the Student Handbook.

Education Plan
Students on Academic Probation will be expected to work with their advisor toward improving their grades by agreeing to an Education Plan. The Plan will outline what activities the student will participate in to raise his/her GPA. Activities may include tutoring, meeting regularly with an advisor, Study Skills Workshops and other support activities.

Students who have been suspended and are re-entering the college will be required to appeal and if approved, participate in an Education Plan/Case Management Program.

Independent Study

Independent study is approved only in situations where an academic emergency exits. Students may request registration for one or more credits of independent study in a semester and must have the consent of the instructor and Administrative approval for the course in which the credit is being sought. The nature of the project, number of credits to be awarded, and the evaluation procedures must be approved by the instructor on a special form located at Student Forms.

Statement on the Role/Importance of Writing

The College recognizes that clear, correct and concise use of language is a characteristic of an educated person. Papers and examinations that are poorly written may receive a lower grade based on the quality of the writing alone. Poor writing is sufficient cause for a failing grade on a paper or in a course. This pertains to all courses offered by the College.

Library and Academic Resource Center (LARC)

Each Minnesota West Community & Technical College campus has a Library and Academic Resource Center (LARC), which supports the curriculum, students, and staff. The LARC houses the following services:

Library
Minnesota West Community & Technical College has approximately 50,000 items including books, periodicals, audio-visual materials, electronic books, and streaming videos. The library website provides access to the online catalog, full-text article databases and reference books, and other library services. Off-campus access is available through proxy services. Library materials are transported between campuses via U.S. mail. Interlibrary loan for materials not owned by Minnesota West Community & Technical College is provided through the MINITEX system.

Library staff provides reference and user instruction on all campuses and to our distance learners. Each library has open computer and study spaces designed to create an inviting atmosphere with comfortable seating, individual carrels, and group study areas.

Tutoring
The Library and Academic Resource Center offers free tutoring to students who need help with classes or programs.

- Individualized and small group tutoring is available for students on all campuses. Students use tutoring services in the LARC to receive assistance in oral and written communication skills, math, reading skills, study skills, and technical tutoring.
- Tutors help students prepare for tests, improve study techniques, review course materials, and answer questions about assignments. They assist with fundamental skills such as time management, note taking, and test preparation techniques that are necessary for college success. Tutors will not do work for students, nor do they replace instructors. They will show techniques to keep pace with assignments and help students understand course material.
- Students usually request tutoring on their own, but faculty may also refer a student for tutoring.

Both peer and staff tutors are available at Minnesota West Community & Technical College.

- Peer tutors are fellow students who display a willingness to assist others and who know the course content and the instructor's expectations.
- Staff tutors provide tutoring and assistance with general study techniques.

Online Assistance
Minnesota West utilizes Tutor.com, a dynamic online tutoring service. This service is available to students 24/7 361 days per year (4 holidays are observed) for free. Students needing assistance in math, economics, accounting, chemistry, physics, Spanish, nursing, statistics, and a wide range of other subjects will receive real-time assistance. Tutor.com also includes an online writing lab, allowing students to submit drafts of writing assignments for assistance in revisions.

Test Proctoring
Make-up tests and testing services for students with documented disabilities are proctored in the Library and Academic Resource Centers at each campus. Hours are set each semester and appointments must be made to schedule a test.

Career Center
Career Services include resume and cover letter assistance. These services are provided at no charge to Minnesota West Community & Technical College students, graduates, and alumni. A Career Assessment

tool is also available for current and prospective students. Students, alumni, and employers have free access to College Central Network, Minnesota West's official online job posting and resume building service.

Computer Access
Each Minnesota West Community & Technical College Campus provides computer access to students. Open computer labs for student use are located in each Library and Academic Resource Center.

LARC Help Desk
The college-wide help desk is housed in the Worthington Library and Academic Resource Center. Students from all campuses and distance learners can contact the help desk via phone or online through our online student support "**Question"** portal. This is a web-based, self-service interface that also features frequently asked questions. The LARC help desk staff works with students to resolve issues related to online courses/D2L and tutoring services. Call (507) 372-3476.

One Stop Communication Center
The college maintains a Communication Center staffed by Resource Specialists who can answer most of the students' questions regarding program information, application, admissions, registration, financial aid, eServices Student Account, Tuition and Fees, Payment Plans, student email, and much more. The Communication Center is available Monday-Friday during the day. Call (800) 658-2330.

Financial Aid

Covering college costs is usually a cooperative effort involving student and parent resources and financial aid, which can consist of grants, scholarships, loans, and student employment.

The responsibility of financing a college education begins with students and parents and their financial capability to contribute to the costs. How much parents and students are expected to contribute is determined by a Department of Education Needs Analysis Formula.

Financial Aid
The amount of financial aid available to a student is also based on the Needs Analysis Formula. Like most colleges, Minnesota West Community & Technical College makes these determinations based on information submitted by families on the Free Application for Federal Student Aid (FAFSA).

Submitting a FAFSA allows students to be considered for aid from the following programs:

- Federal aid such as the Pell Grant, SEOG Grant, Direct Loan, and Perkins Loan.
- State aid such as the Minnesota State Grant.
- College employment through the Work Study program.

Scholarships
Minnesota West Community & Technical College recognizes students who have demonstrated outstanding academic, leadership, service, and extracurricular achievements through the Minnesota West Community & Technical College Scholarship program. Qualified students, regardless of financial circumstances, may apply for these awards.

Getting Started with Financial Aid
Minnesota West Community & Technical College is ready to assist students and provide information about financing education. Students must apply for financial aid each year because financial, academic, or personal situations may change.

Satisfactory Progress Standards

Minnesota West Community & Technical College adheres to Minnesota State policy of maintaining an open door admissions policy, assessing students, and providing developmental coursework and other programs of assistance to support student success. However, students must perform at an acceptable academic level and program completion level to continue enrollment and be eligible to receive financial aid.

Minnesota West Community & Technical College is a publicly supported institution and has an obligation to follow rules and regulations set forth by the state and federal government by providing documented accountability of the taxpayer's investment in education by closely monitoring all students' academic progress.

Minnesota West Community & Technical College requires that students make satisfactory academic progress toward a degree, diploma or certificate to remain in good standing. According to regulations governing the federal financial aid programs, a student must be enrolled in a program of study leading to a degree or certificate and must be making satisfactory academic progress according to standards and practices of the institution in order to continue to be eligible for the federal programs (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Direct Loan, Federal PLUS, and Federal work Study), state programs (Minnesota State Grant, Minnesota Non-AFDC Child Care Grant, Minnesota State Work Study, and Student Education Loan Fund), and institutional programs. All students must comply with the standards of Satisfactory Academic Progress as outlined in this policy without exception for full-time/part-time status or regardless of program of study.

Satisfactory Academic Progress is defined as

progressing in a positive manner toward fulfilling requirements for the degree or certificate in a given program of study. Satisfactory progress is the measurement of a student's performance (credits completed and cumulative grade point average) in meeting the institutional degree requirements.

Minnesota West Community & Technical College believes that students are responsible for their own academic progress and for seeking assistance when experiencing academic difficulty.

Minnesota West Community & Technical College has an established procedure for placing students on academic warning, continued academic probation, academic suspension, financial aid warning, and financial aid suspension.

There is also an appeal process for academic/financial aid suspension based on unusual or extenuating circumstances. Appeal forms for both academic and financial aid issues are available from the Student Services Office, the Campus Administrator Office or online.

The standards that follow are based on Federal requirements and Minnesota State Board Policy.

Requirements

1. Qualitative Measure

All students are required to maintain an acceptable grade point average (GPA). The minimum standard is progressive based on cumulative registered credits and is detailed below.

Grades of A,B,C,D, and F will be included in calculating a student's GPA.

Cumulative Registered Credits	Minimum Required GPA
0-5	0.00
6-15	1.60
16-30	1.80
31+	2.00

2. Quantitative Measures

a. Required Completion Percentage: Students are required to complete a minimum of all attempted credits as follows:

Cumulative Registered Credits	Minimum Completion Percentage
0 – 5	**0%**
6+	**67%**

b. The completion percentage will be reviewed after the end of each term. Grades of Incomplete (I), Failing (F), Ceased to attend (FW), Withdraw (W), No Credit (NC) or No Grade Assigned (Z) do not count toward satisfactory completion but as attempted credits.

c. Maximum Time Frame: All students are expected to complete their program within an acceptable period of time. Financial Aid recipients may continue to receive aid until they complete all of their required coursework or until they have attempted 150% of the normal time required to complete a program (ex: for a 60 credit program you can attempt 90 credits towards the completion of the program and receive financial aid) There is no warning period for Maximum Time Frame.

   i. If a student changes programs after receiving financial aid for partial completion of one program, and if the new completion time will be more than 150% of normal completion of the original program, the maximum time for the student's financial aid eligibility will be agreed to be the length of time to complete only the additional courses required to complete the second program.
   ii. If a student decides to have a double major, the 150% completion time may be extended. The maximum time for the student's financial aid eligibility will be agreed to be the length of time to complete only the additional courses required to complete the second major.
   iii. If a student completes one program and decides to enter into another program, the maximum time for the student's financial aid eligibility will be agreed to be the length of time to complete only the additional courses required to complete the second program.

3. Evaluation Period

Satisfactory Academic Progress will be monitored as follows:

All students with registered credits during a term will be evaluated at the end of the term including summer to make sure that all criteria of the satisfactory progress policy have been met. The review is based on cumulative records. Students who are part-time will not be evaluated until six cumulative registered credits are posted on the student's transcript.

4. Failure to Meet Standards

A. **Academic and Financial Aid Warning and Suspension**

Warning

A student will be placed on Academic and Financial Aid Warning for one term if he/she fails to meet these standards at the end of the review period. Students on warning are eligible to receive financial aid. To be removed from

warning, a student must meet the SAP standards at the end of the warning period.

If a student fails to meet the SAP standards at the end of the warning period, he/she will be placed on Academic and Financial Aid Suspension.

Suspension
Academic and Financial Aid Suspension: A student will be placed on suspension if: he/she does not satisfactorily remove him/herself from Academic and Financial Aid warning.

Financial Aid suspension: If a student has reached 150% of credits attempted for Financial Aid suspension or Minnesota West has determined it is not possible for the student to raise his/her GPA or completion rate to meet the college's standards prior to the end of the program for which the student is receiving financial aid.
A student does not have to be placed on academic suspension to be placed on financial aid suspension.

B. **Extraordinary Circumstances**
Students may be immediately suspended from financial aid eligibility 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.

5. Notification
The college will notify a student in writing by mail and/or student email when they enter into a warning or suspension status. It is the student's responsibility to monitor their Satisfactory Academic Progress.

6. Appeal Process:
The appeal of academic suspension and appeal of financial aid suspension are separate processes. Approval of an academic appeal does not guarantee approval of a financial aid appeal. By federal regulations, the guidelines for approval of financial aid appeals are more restrictive.
Academic Appeal:

1. Appeals must be submitted in writing using the Academic/Financial Aid Reinstatement Appeal form and include all of the following documentation:
    a. Letter of explanation describing extenuating circumstances that affected academic progress and how your situation has/will change.
    b. Copy of unofficial college transcript(s).
    c. A completed Education Plan listing courses and credits by semester, and actions/steps to achieve Satisfactory Academic Progress. It must be signed by student and advisor.
    d. If requested by the Committee Chairperson or designee, the appeal must include supporting documentation beyond the written explanation.
2. The Appeals Committee will meet the second week of every month however, Appeals must be received by the Committee Chairperson prior to the beginning of the start of the term desired. Any appeals received after the term begins will be considered for the next term.
3. A committee of five or more members and the Committee Chairperson will consider the appeal.
    a. The appeals committee will meet monthly and within a reasonable time frame prior to the start of each term. The Committee Chairperson may call other meetings as needed.
    b. The decision will be transmitted to the student within three working days after the decision has been made. The decision will be final.
4. If an appeal is denied, a student may file a new appeal in a subsequent term.
5. An Academic Dean may approve registration into one course without lifting the suspension only if the Academic Appeal form is completed by the student and signed by an Advisor with consultation of SAP requirements.

Academic Reinstatement
A student who has been suspended from enrollment may return to the college on probationary status after an appeal has been approved with the following requirements.

1. The student will continue on probationary status if the student completes 75% of his/her registered credits in the probationary semester with a 2.5 term grade point average but has not met the institution's cumulative standards.
2. The student will be removed from probationary status when both the cumulative qualitative and quantitative criteria for satisfactory academic progress have been met.
3. The student must contact her/his academic advisor at three times each semester to report academic status and registration for next term.

Financial Aid Appeals
A student who fails to make satisfactory academic progress and is suspended from enrollment has the

right to appeal based on unusual or mitigating circumstances including but not limited to death of a relative, illness, hospitalization, or injury to the student. Mitigating circumstances are situations that are out of the control of the student and were not present at the time of initial enrollment. An academic appeal must be approved before a financial aid appeal can be considered.
The appeal must be submitted using the Academic/Financial Aid Reinstatement Appeal form found on our website.

1. The appeal must include an explanation of the extenuating circumstances that negatively affected academic progress.
2. The appeal must include supporting documentation beyond the written explanation.
3. The appeal must 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.
4. Sitting out a year is not in itself a reason for appeal or reinstatement of financial aid.

The initial consideration of appeal shall be undertaken by the Director of Financial Aid or a designee. Students have the right to request appeals of adverse decisions to go to the Financial Aid Appeals Committee. Results of all appeals will be communicated to the student in writing in a timely manner along with pertinent information regarding the conditions of the appeal and the length of the appeal period.

7. Financial Aid Reinstatement
Student will be eligible for Reinstatement of Aid when:

1. They satisfactorily complete acceptable academic work (2.0 GPA and 67% completion) in a minimum of 6 credit hours taken toward completion of their degree in the same semester. This student cannot receive financial aid for the period during which eligibility is being reinstated. A student who has met this condition must still be approved through the appeal process. Reinstatement of financial aid is not guaranteed.
2. They have had a financial aid suspension appeal approved based on unusual or mitigating circumstances including but not limited to death of a relative, illness, hospitalization, or injury to the student. Mitigating circumstances are situations that are out of the control of the student and were not present at the time of initial enrollment.
3. They have met the conditions specified in their academic plan but have not met the institution's cumulative standards. In such cases, MWCTC shall permit the student to remain on a continued probation status for a subsequent evaluation period.
4. They have a grade of Incomplete (I) turn into an acceptable letter grade during the first twenty days of the semester following the suspension that enables the student to meet the minimum Satisfactory Progress requirements.
5. They have met the cumulative GPA and completion rate requirements by taking credits on their own (no financial aid). Students need to contact the Director of Financial Aid in writing when they have met the requirements.

8. Additional Elements

A. Treatment of Grades: A course repeated with the intent of improving GPA will have both the initial and repeated course counted when calculating courses attempted. Grades of Incomplete (I), Failing (F), Failure, Ceased to Attend (FW), Withdraw (W), No Credit (NC), In Progress (IP), or No Grade Assigned (Z) shall be treated as credits attempted but not successfully completed.
B. Academic Amnesty: Credits for which students have been granted academic amnesty ("academic forgiveness", "academic renewal", etc.) will be included in both cumulative GPA and completion percentage for financial aid warning/suspension calculations.
C. Audited Courses: Audited courses (AU) are not included in any financial aid satisfactory academic progress measurements.
D. Consortium Credits: Credits for which financial aid is received under a consortium agreement will be included in cumulative GPA, completion percentage and maximum time frame calculations for financial aid warning/suspension.
E. Remedial Credits: Developmental courses are those awarded for remedial course work (below 1000 levels). Students may receive financial aid for developmental credits up to a maximum of 30 credit hours (excluding ESL). These credits are included in all financial aid satisfactory academic progress measurements. Up to 30 credits of developmental credits shall be excluded from maximum time frame calculation.
F. Repeated Courses: Repeated credits are credits awarded when a student repeats a course in order to improve a grade. The last grade will become the grade calculated for GPA purposes. Academic policy allows a student to repeat a course no more than two times, however, a student shall not be permitted to receive financial aid for more than one repetition of a previously passed course. All repeated credits are included in the percentage of completion and maximum time frame calculation for financial aid purposes.
G. Transfer Credits: Transfer credits accepted by Minnesota West Community & Technical

College shall not be counted as credits attempted for calculation of cumulative completion percentage, and grades associated with these credits shall not be used in calculating cumulative GPA. Transfer credits accepted and applied by Minnesota West Community & Technical College toward a student's general education program, or degree requirements shall apply toward the maximum time frame calculation.

H. Withdraws: Credits for courses that a student withdraws from after the drop period will be included in credits attempted but not successfully completed for purpose of monitoring academic satisfactory progress. Thus, a "W" does not impact GPA, but does negatively impact the cumulative completion percentage.

I. Students who have not met the institution's cumulative grade point average and completion percentage standards and have not met the conditions specified in his/her academic plan shall be re-suspended immediately upon completion of the evaluation.

Student Eligibility Policy

A student must meet federal/state requirements to be eligible for and receive financial aid.

Federal Requirements

1. A student must be a citizen of the United States or an eligible nonresident.
2. A student must meet the requirements of the Selective Services regulations.
3. A student may not be in default on a student loan or owe an overpayment on Title IV funding at any previously attended postsecondary school.
4. A student must be making "satisfactory progress" toward graduation.
5. A student must have a high school diploma or a GED certificate.
6. A student must be enrolled in (or have applied for admission to) an eligible program.

State Requirements

1. A student must be enrolled in an eligible program of at least three credits.
2. A student must be a Minnesota resident.
3. A student must demonstrate financial need.
4. A student must be past mandatory high school age or if under 17, hold a high school diploma or GED.
5. A student must not be delinquent on child support payments.
6.

Ability to Benefit

Every student receiving financial aid at Minnesota West Community & Technical College must be academically qualified for study at a higher education level. A student with a high school diploma or its recognized equivalent (GED) is always considered to be academically qualified. A student who does not have a high school diploma or its recognized equivalent is not eligible for Federal Financial Aid funds, only state funds.

Enrollment/Degree Verification

Minnesota West Community & Technical College has authorized the National Student Clearinghouse to act as agent for verification of student enrollment and degree status. The verification service is available 24 hours a day, 7 days a week.

The Clearinghouse receives data electronically from Minnesota West Community & Technical College and, in compliance with the Family Educational Rights and Privacy Act (FERPA), dispenses the information electronically to current students or agencies and organizations requiring proof of enrollment.
Student Status is defined as:

Full-time status	12 or more hours
Half-time status	6-11 hours
Less than half-time	1-5 hours

Note: For students who need GPA or grades reported, an official/unofficial transcript is available from the Registrar's office.

Professional or Business Organizations/Companies

The National Student Clearinghouse provides instant electronic verification of student degrees and student enrollment to employers, employment agencies, credit card companies, background search firms, travel companies, and various other businesses that offer products or services based on an individual's status as an enrolled student.

Agencies and organizations are required to contact the Clearinghouse at www.degreeverify.org for Minnesota West Community & Technical College student enrollment information.

National Student Clearinghouse
13454 Sunrise Valley Road, Suite 300
Herndon, VA 20171
Phone: 703-742-4200
Fax: 703-742-4239

Active Duty with Armed Forces

Minnesota West Community & Technical College in accordance with Minnesota State policy 5.12 recognizes the importance of America's national defense that is made by students who are members of the armed forces.

Students enrolled at Minnesota West Community & Technical College who are members of any branch of the U.S. military reserves and who are unable to complete a semester due to having been called to active duty shall to the extent possible be provided one of the following options:

1. The student may be given a full refund of tuition. Students receiving financial aid who choose this option should be made aware that they may be liable for any required refunds of state or federal financial aid funds.
2. The student may be given a grade of incomplete in a course and complete it upon release from active duty. Course completion may be accomplished by independent study or by retaking the course without payment of tuition. Under federal financial aid policies a course that is retaken this way may not be counted toward a student's enrollment load.
3. If in the instructor's judgment the student has completed sufficient course work to earn a grade of C or better, the student may be given credit for completion of a course.

Minnesota West Community & Technical College will provide a full refund of required tuition, fees, and other institutional charges, or provide a credit in a comparable amount against future charges for students who are forced to withdraw from the College as a result of a military mobilization. Students affected by a military mobilization will be provided an easy and flexible re-entry back into Minnesota West Community & Technical College upon the students release from active duty.

Leave of Absence

Students who have a legitimate reason for an extended absence may request a leave of absence. The leave of absence shall meet these conditions.

1. Must be a written request giving starting and ending dates.
2. Must be approved by the student's advisor and a College Dean.
3. Will not exceed thirty (30) school days.
4. Does not require the student to pay any charges to the College during the leave period.
5. Does not require the student to repeat any class time.
6. May be granted to a student only once in a twelve (12) month period.

Note: If a student who has been granted a leave of absence does not return to class at the end of the leave, the student's withdrawal date is the first date of the leave. Consequently, no financial aid will be disbursed during the period.

Graduation Information

Graduation
Students will graduate with an Associate of Arts Degree, Associate in Science Degree, Associate in Applied Science Degree, Diploma, or Certificate upon the successful completion of all program/major requirements.

A minimum cumulative grade point average of 2.0 is required for graduation. Practical nursing, registered nursing, medical lab technician, medical assisting, law enforcement (technical courses), radiologic technology, surgical technology requires a 2.0 per course for satisfactory completion.

To be eligible for a degree, diploma, or certificate, a transfer student must earn at least 30% of the major graduation requirements from Minnesota West Community & Technical College.

Graduation with Honors
A student will be graduated "with honors" if the cumulative grade point average is between 3.5 and 3.74, and "with high honors" if the cumulative grade point average is 3.75 or greater.

Apply for Graduation
Each graduating student must complete an Application for Graduation Form for Student Services during the semester preceding graduation.

Campus Graduation Ceremonies
Each Minnesota West Community & Technical College campus will host a graduation ceremony at the end of the spring semester recognizing all students who have completed the degree, diploma, or certificate requirements during the academic year.

Student Services

Official Transcripts

A transcript is a comprehensive record of student academic progress. Names will appear on the transcript as it appears on the College record. Academic records are classified as confidential and may be released only with the student's written authorization and signature. Official transcripts include the College seal and signature of the registrar.

To request an official transcript:

Order it online through Parchment (www.parchment.com).
Minnesota West has partnered with Parchment to provide students with the option of ordering a transcript online. Students create a personal profile, submit their

requests, pay a designated fee per transcript by credit card, electronically sign and submit the order. Once Parchment receives the completed order, Minnesota West is notified of the transcript request. Ordering transcripts online allows students to track the progress of their requests.

By Mail or In Person
Print the Transcript Request form found on the Minnesota West web site.

Complete the form and mail (or personally deliver to any campus) along with $10.00 for each copy requested to:

Minnesota West Community & Technical College
Office of the Registrar
1450 Collegeway
Worthington, MN 56187

Students do not need to complete a transcript request if they plan to attend an institution that is a part of the Minnesota State system; those colleges will have electronic access. Transcripts are sent within two working days. Students who have a hold on a college record will be sent a letter advising how to clear the hold before a transcript can be issued.

Unofficial Transcripts
Current students may print an unofficial copy of an academic record by logging in to their student account. Instructions are found in the "How Do I?" section of the page. Questions regarding transcript requests should be directed to the Registrar.

Bookstore

Minnesota West Community & Technical College operates a fulfillment center located on the Worthington campus and ships all books and materials directly to the address of the students choice for the convenience of both students and the faculty. All books and materials should be ordered online at the Minnesota West bookstore.

General supplies are available in the college retail stores located on four of the five campuses, as well as clothing, gifts, souvenirs, and snack options.

Students dropping courses will be permitted to return texts for a full refund through the 6th day of the semester. Students must fill out return slip and enclose a copy of the packing slip; texts and materials must be in perfect, unmarked condition. Texts in shrink wrap cannot be opened. Single use access codes must not be opened and registered. Study guides and solution manuals are not returnable. Books and materials being mailed back to the fulfillment center must be postmarked by the 6th day of the semester to be eligible for a full refund.

Child Care Assistance

The Post-Secondary Child Care Grant Program assists low income students who have young children pay for child care while the student attends classes.

Campus Child Care Centers

Contact your campus for a list of local child care providers. You may also contact the county Family Service Agency or the Southwestern Minnesota Opportunity Council (SMOC) Child Care Resource and Referral program at 866-511-2244.

Advisor/Advisee

It is the philosophy of Minnesota West Community & Technical College that an advisor/advisee system is essential to the growth and development of each individual student.

Two tools have been developed to help the advisor. Degree audits are available for every student, plus a course applicability system Transferology can help a student and advisor determine how courses will transfer into and out of Minnesota West Community & Technical College. A student advisee is responsible to use the degree audit to determine how the student is progressing towards graduation.
Students have the final responsibility to select and register for courses that meet the program plan requirements. They are encouraged to seek consultation and advice when selecting courses.

1. Consult with an advisor prior to the first semester registration and each semester prior to graduation.
2. Make appointments for such consultations during regularly scheduled office hours.
3. If it is impossible to keep the appointment, cancel it in a timely manner.
4. Prepare for the appointment and bring appropriate materials.
5. Discuss academic and career related needs as they develop.
6. Become knowledgeable about college, department and/or program policies, procedures, and requirements and adhere to them.
7. Assure that all courses needed for graduation have been completed.

Advisor Responsibilities:

1. Inform the student of the advisor - advisee relationship.
2. Maintain advising records for each student, monitoring their progress toward educational and career plans.
3. Identify and post office hours of availability.
4. In consultation with appropriate individuals, review students' previous academic history and placement tests to determine course placement, transfer of credits and/or recommendations for test out.

5. During pre-registration assist students with course selection and the development of semester schedules.
6. During the academic term, assist students with drops, adds, withdrawals and change of status.
7. Refer students to appropriate resources as necessary in cases where academic or personal problems are at such a level as to require intervention by other professionals.
8. Inform students of department or program policies, procedures, and requirements.
9. Assist students with job placement resources or transfer.
10. Help students to define and develop realistic educational and career plans.
11. Interpret and provide students with the rationale for institutional policies, procedures, and requirements.
12. Inform students of special services available for remediation, academic assistance, personal counseling, and career counseling.

Food Service

Food service may be available at some campuses through a private vendor. Options vary across the campuses. Vending machines are also available on campus for a variety of snacks and beverages.

Housing

Housing is the responsibility of the student. A listing of available housing is located at all campuses. Contact the campus admissions office for a list of apartment and housing units available for rent.

Student Identification Card

Each Minnesota West Community & Technical College student is issued a permanent photo identification card. The card is the property of Minnesota West Community & Technical College and the lending of the card or failure to present it when requested by a college official is a violation of the Student Conduct Code. The card is for identification and the transaction of college business only. Each student is personally liable for all obligations incurred by its use. Lost or damaged cards will be replaced at a $5 cost to the student.

Student Clubs and Organizations

Minnesota West Community & Technical College is dedicated to the principle that student clubs/organizations are an integral part of the total education program. Students have the opportunity for representation in college committees involving or affecting student interests to promote appropriate levels of student participation in campus/college decision making and assuring that student perspectives are considered.

For a complete list of college clubs and organizations please reference our website at www.mnwest.edu.

Absences for Attending College Events
Students enrolled at Minnesota West Community & Technical College and who participate in college-sponsored activities and approved Instructor-generated field trips shall be excused from missed classes without prejudice or penalty. This policy is intended to permit students to participate in events and activities without jeopardizing their academic standings or penalizing them in the classes they miss.

The activity advisor, coach or instructor will submit a list of students to be excused from classes along with the name of the event or activity, dates and times of absence to the Student Service Dean for approval and notification to the college faculty.
It is the student's responsibility to contact his/her instructors at least two days prior to the absence to arrange to make-up work missed. Instructors may require make-up work to be complete prior to the absence. The student is responsible for all work missed during the approved absence period.

Once the student has notified the instructor, it is the instructor's responsibility to arrange for make-up work or alternative assignments so that the student is not penalized for an approved absence. It is understood that all missed classroom experiences cannot be replicated

Directory of Minnesota West Community & Technical College Administration and Faculty

Administration

Terry Gaalswyk .....President
B.A. Northwestern College
M.Ed. South Dakota State University
M.S. South Dakota State University
Ph.D. Iowa State University

Arthur Brown.....Provost
A.A.S. Greenville Technical College
B.S. University of Texas
M.P.H. University of Texas
Ph.D. California Intercontinental University

Vacant..... Vice President of Finance and Facilities

Abdullahi Farah Abdigaani .....Dean of Equity, Inclusion, and Student Development
A.A. Normandale Community College
B.S. University of Nebraska Medical Center
M.P.H. University of South Dakota

Dillon Carlson ..... Director of Facilities

Diana Fliss..... Director of Financial Operations
Diploma, Minnesota West Community & Technical College
A.A. Minnesota West Community & Technical College

Dawn Gordon ..... Dean of Science & Nursing
B.S. Augustana College
M.B.A. Colorado Technical University
M.B.M. Colorado Technical University
M.S. Colorado Technical University
Ph.D. South Dakota State University

Cody Henrichs……Foundation Executive Director
B.A. University of Northwestern
M.F.A. Rhode Island School of Design

Katie Heronimus .....Director of Admissions, Registration and Financial Aid
B.A. Mount Marty College
M.S. Bemidji State University

Katie Meyer..... Vice President of Human Resources
B.S. University of Wisconsin, River Falls
M.S. Wilmington University

Jackie Otkin..... Dean of Allied Health
B.S. South Dakota State University
M.S. Metropolitan State University

Logan Schrader ..... Director or Energy Center
B.S. Minnesota State University Moorhead
M.A. University of St Thomas

Linda Pesch..... Director of Enrollment
B.S. St. John's University
M.S. Capella University

Craig Peters .....Dean of Management & Technical Programs
B.S. South Dakota State University
M.S. South Dakota State University
Ed.D. University of South Dakota

Kayla Richter……..Business Services Manager
A.A.S. Ridgewater College
B.A. University of Sioux Falls

Rebecca Weber..... Dean of Student Services
B.S. Southwest Minnesota State University
M.S. South Dakota State University

Kent Dahlman..... Interim Dean of Liberal Arts & K-12 Partnerships
B.S. Minnesota State University, Moorhead
M.S. St. Cloud State University

Faculty

Sara Abrahamson..... Dental Assistant
A.A.S. Minnesota West Community & Technical College
B.S. Minnesota State University, Mankato
M.S. Southwest Minnesota State University

Wendy Anderson…… Dental Assisting
B.S. University of South Dakota
M.S. University of South Dakota

Robert Arp..... Electrician
Diploma, Minnesota West Community & Technical College
A.A.S. Minnesota West Community & Technical College
B.S. Bemidji State University

Leslie Bauman .....Accounting
Diploma, Minnesota West Community & Technical College
B.S. Bemidji State University
M.S. Bemidji State University

Courtney Baumann……Practical Nursing
B.S. Presentation College
M.S.N. Western Governors University

Lance Baumann..... Electrician
Diploma, Minnesota West Community & Technical College

Philip Berg .....Lamb and Wool Management
B.S. South Dakota State University
M.S. North Dakota State University

Shawn Berning ..... Carpentry
Diploma, Alexandria Technical & Community College

Dan Bernstrom ..... English
B.S. University of Northwestern
MFA Hamline University

Brian Binnebose..... Powerline Technology
Diploma, Wadena AVTI

Mike Boersma.....Farm Business Management
B.S. South Dakota State University

Tom Bohlke .....Plumbing
Diploma, Minnesota West Community and Technical College

Brian Boomgaarden..... Farm Business Management
B.S. South Dakota State University

Ty Bowen.....Mechatronics
A.A. Minnesota West Community & Technical College

Aaron Brudelie ..... Farm Business Management
B.S. South Dakota State University
M.B.A. Southwest State University

Liz Bunjer ..... Nursing Assistant
A.A.S. Minnesota West
B.S. Southwest Minnesota State University

Tim Buysse.....English
B.A. University of Minnesota
M.A. South Dakota State University

Linda Carter..... Farm Business Management
B.S. South Dakota State University

Georgina Cavin…… Small Business Management
A.A.S. National College
B.S. National American University
M.B.A. University of Sioux Falls

Stacy Christensen..... Practical Nursing
B.S.N. South Dakota State University
M.S. Minnesota State University, Moorhead

Tiffany Cross..... Nursing, A.D.
M.S. Indiana Wesleyan University
B.S. University of Iowa

Jeremy Daberkow ..... Farm Business Management
B.S. University of Minnesota

Linzie Dagel..... Nursing Assistant
A.S. University of South Dakota

Jenna Davis..... Farm Business Management
B.S. University of Minnesota St Paul
M.S. University of Minnesota St Paul

Gina deCesare.....Peace Officer
M.B.A. C.W. Post, Long Island University
P.C.O.E University of Wiscondin-Madison

Mike DeVries .....Diesel Mechanics
Diploma, Minnesota West Community & Technical College

Mike Dierks..... Farm Business Management
B.S. South Dakota State University
M.B.A. Southwest Minnesota State University

Wendy Donkersloot ..... Nursing, Practical
B.S. Minnesota State University Moorhead
A.A.S. Minnesota West Community and Technical College
A.S. Minnesota West Community and Technical College

Judy Drown .....Electrician
A.A.S. Minnesota West Community & Technical College

Deron Erickson ..... Farm Business Management
B.S North Dakota State University

Danylle Espenson..... Cosmetology
Regency Beauty Academy

Shannon Fiene.....Mathematics
B.S. Clemson University
M.S. North Carolina State University
Ph.D. North Carolina State University

Paul Filzen.....Farm Business Management
B.S. South Dakota State University

Erika Freking.....Nursing
A.A.S. Minnesota West Community & Technical College
B.A. Southwest Minnesota State University
M.S. Minnesota State University, Mankato

Amber Garcia.....Occupational Therapy Assistant
A.A.S. Lake Area Technical College
B.S. St. Catherine University
M.A. St. Catherine University

Anita Gaul .....History
B.A. Calvin College
M.A. University of Iowa, Iowa City
PhD. University of Iowa, Iowa City

Megan Gorres .....Practical Nursing
A.S. Ridgewater College
M.S. Bellevue University
M.S.N. Grand Canyon University

Leah Gossom..... Art
B.A. Ohio State University
M.F.A. Ohio State University

Jeremy Hall ..... Welding
Diploma, Ridgewater College

Rosalie Hayenga-Hostikka.....Biology/Coaching
B.S. Minnesota State University, Moorhead
M.S. St. Cloud State University

Justin Heckenlaible.....Computer Science
B.S. Dakota State University
M.S. University of South Dakota

Alyson Helgeson……..Early Childhood
B.A. Concordia College
M.A. University of Phoenix

Nicholas Hjelle..... Welding
A.A. Ridgewater College
B.S. St Cloud State University

Andy Hoffman……Diesel Technology
Diploma, Minnesota West Community & Technical College

Angela Hoffman.....Administrative Support
A.A. Minnesota West Community & Technical College
B.S. Franklin University

Kent Janssen.....Farm Business Management
B.A. University of Minnesota
M.A. University of Minnesota

Andrea Johnson.....Health Information Technology
D.H.A. Medical University of South Carolina, Charleston, SC
M.B.A-H.C.M. American InterContinental University, Atlanta, GA
B.S. Middle Georgia State University, Macon GA

Douglas Kleeberger .....Auto Mechanics
B.A. Pillsbury Baptist Bible College
M.A. Central Baptist Theological Seminary

Scott Knight ..... Medical Laboratory Technology
B.A. Iowa State University
B.S. Iowa State University
A.S. Des Moines Area Community College

Ryan Knuth……Lamb & Wool Management
B.S. University of Wisconsin, Platteville
M.S. Montana State University
Ph.D University of Wyoming

Lisa Kounkel……Cosmetology
Certificate, Stewart School

Laura Laackman ..... AD Nursing
A.A. Minnesota State University, Mankato
A.S. Southeast Technical Institute
B.S. South Dakota State University
M.S. Western Govenors University

Kourtney Leuthold..... Teacher Education Foundation
B.A. University of Sioux Falls
M.A. Western Govenors University

Jeff Linder .....Physical Education/Coaching
A.A. Minnesota West Community & Technical College
B.S. Bemidji State University
M.S. United States Sports Academy

Amy McCuen .....Surgical Technology
Diploma, Southeast Technical Institute
A.A.S South Dakota State University

Shawn Meyer..... Farm Business Management
A.A. Fergus Falls Community College
B.S. University of Minnesota

Brad Milbrath..... Farm Business Management
B.S. South Dakota State University

Rita Miller.....Medical Lab Technician
B.S. South Dakota State University
M.S. University of North Dakota
Ed.D., MLS (ASCP) St. Cloud State University

Gary Olsen..... Wind Energy/Electrical
Diploma, Minnesota West Community & Technical College

Troy Otto..... Farm Business Management
A.A. Minnesota West Community & Technical College
B.S. South Dakota State University

Falon Paluch .....Radiologic Technology
Diploma, Avera McKennan
B.S. University of Sioux Falls
M.S. Northwestern State University of Louisiana

Eric Parrish……..……..Music/Theater
B.A. Gustavus Adolphus
M.M. University of Northern Colorado

Terri Petersen..... Medical Record Technology
Diploma, Minnesota West Community & Technical College
A.A.S. Rochester Community & Technical College

Robert Purcell .....Physical Education/Coaching
B.S. Minnesota State University, Moorhead
B.A. Minnesota State University, Moorhead
M.S. North Dakota State University

Zachary Rada ..... Farm Business Management
B.S. South Dakota State University

Jeffrey Rain..... Biology
A.A. Vermilion Community College
B.S. Minnesota State University, Mankato
M.A. Bemidji State University

Vong Rathsachack ..... Psychology
B.S. Huron University (CTU)
M.A. C.O. Sioux Falls Seminary (NABS)
Ph.D .Harold Abel School of Psychology (Capella University)

Tim Rhodes..... Computer Support Technician
A.A.S. South Central College

Jeff Rogers..... Agriculture
A.S. Minnesota West Community & Technical College
B.S. University of Minnesota
M.Ed. North Dakota State University

Terry Rotschafer.....Accounting/Business
B.S. Minnesota State University, Mankato
M.B.A. Minnesota State University, Mankato
M.S. University of Wisconsin

Jordana Runck ..... Biology
B.S. Winona State University
M.A. Concordia St. Paul
M.S. University of Nebraska, Kearney

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B.A. Iowa State University
M.A. St. Catherine University

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Diploma, Minnesota West Community & Technical College

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B.A. Augustana College
M.A. University of South Dakota

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B.S. Minnesota State University, Moorhead
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A.A. Avera McKennan School of Radiologic Technology
B.S. Bemidji State University

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B.S. St. Cloud State University
M.A. Minnesota State University, Mankato

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B.S.N. South Dakota State University

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Diploma, Northwest Iowa Community College

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B.A. Gustavus Adolphus College
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M.S. Minnesota State University, Mankato

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B.S. Minnesota State University, Mankato
M.S. University of Tennessee

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A.A. Minnesota West Community & Technical College
B.A. Augustana College
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B.S. University of Wisconsin, Madison
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Lou Ann Williamson ..... Reading
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