Mesabi Range Community & Technical College is a member of the Minnesota State Colleges & Universities (MnSCU) system.

Mesabi Range Community & Technical College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

Higher Learning Commission
North Central Association of Colleges and Schools
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
(312) 263-0456

Due to conditions beyond the control of Mesabi Range Community & Technical College, it may be necessary to amend and/or delete statements appearing in this catalog. Insofar as possible, programs and course offerings will be offered as listed; however, the College reserves the right to modify any statement in accordance with MnSCU policies.

Virginia Campus:
1001 Chestnut Street West
Virginia, MN 55792
218-741-3095
800-657-3860
V/TTY 218-749-7783
Fax: 218-748-2419

Eveleth Campus:
1100 Industrial Park Drive
P.O. Box 648
Eveleth, MN 55734
218-741-3095
800-657-3860
V/TTY 218-744-7455
Fax: 218-744-7466

Visit us at: www.mesabirange.edu
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WELCOME TO MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Congratulations! You have made a wise decision in considering and selecting Mesabi Range Community & Technical College. Without a doubt, you are getting the right start!

At MRCTC you get the right start by completing the first two years of a baccalaureate degree, by completing one of many career programs, by developing your basic skills, or by enhancing your life through community and continuing education. There is something just right for you at Mesabi Range College.

Mesabi Range has a history dating back to 1918, one that was built on offering its learners an educational experience rich in learning opportunities, with a level of quality that was second to none. That tradition continues today, and is found in every program, department and service the college offers. The college plays an important role in Minnesota higher education, and has educated several generations of students, many from other states and countries. Today MRCTC is a vibrant, modern two-year college with two campuses situated in the heart of beautiful Iron Range country.

We offer students an outstanding academic experience, a rich co-curricular life, competitive athletics, challenging and deeply caring faculty, and opportunities for travel study, leadership development, and service. In everything that we do and offer, learners are at the heart of it all. You are in for a treat as you get to know this dynamic and diverse college. We are proud of our work – and we are excited to welcome you to our college!

Best Wishes,

Dr. Tina Royer, Provost
EQUAL OPPORTUNITY COLLEGE
Minnesota State Colleges and Universities are committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in programs, services and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law. This document is available in alternative formats to individuals with disabilities by calling 1/800-657-3860, TTY 218/749-7783 (Virginia) or TTY 218/744-7455 (Eveleth).

In order to implement its policy on Equal Opportunity, the College shall base all decisions concerning employment on the principles of Equal Opportunity. All decisions will be consistent with applicable laws, directives and regulations. The College will also ensure that promotion decisions are in accordance with the principles of Equal Opportunity by utilizing only valid requirements for promotional opportunities. Likewise, the College will ensure that all other actions relating to the welfare of its employees are implemented within the commitment to equal opportunity.

Valuing Diversity
Mesabi Range has accepted a special role and responsibility in fostering diversity in our society. Managing diversity requires valuing members of the College for their individual contributions and how they differ from one another. Mesabi Range Community & Technical College strives to implement policies and programs that promote equal opportunity for people of protected groups.

Mesabi Range is committed to maintaining a respectful, fair, and secure educational environment that is free from discrimination or harassment. The College publicly declares its intentions to continue to provide a multicultural learning community that does not tolerate any acts of harassment that infringe on a positive educational environment. Additionally, the College continues to establish, communicate, and enforce standards of behavior for students and staff that uphold our academic values and promote the acceptance of and respect for all members of the Mesabi Range Community & Technical College population. Mesabi Range will continue to enforce policies that ensure an educational environment that is free from illegal harassment.

Rights And Protections Provided By The ADA
Mesabi Range Community & Technical College ensures that no otherwise qualified person with a disability will be denied access to and participation in programs, services, and activities due to their disability. MRCTC will not discriminate against students with disabilities and provides reasonable accommodations, on an individualized basis, in order to enable that student an equal opportunity to participate in college-sponsored programs.

Reasonable accommodation is determined on an individual basis and will reflect the functional impairment. Therefore, accommodations may vary from class to class, depending on course content, requirements, and format. The college is not only concerned with reasonable accommodation or campus accessibility, but also with the rights of individuals with disabilities to study and/or live in an environment free from harassment or discrimination.

Our Disabilities Director has been designated to coordinate compliance with the Americans with Disabilities Act (ADA). Information concerning the provisions of the ADA, and the rights provided thereunder, is available from the Disabilities Director. The College fully complies with the ADA and Minnesota Law. The ADA Coordinator for our campuses is Lindsay Lahti, Room 100, Eveleth Campus. She can be reached at 218-749-0319 or 218-744-7544 (V/TTY). Any concerns, complaints, or other questions regarding ADA issues should be forwarded directly to Ms. Lahti.

MISSION STATEMENT
Mesabi Range Community & Technical College provides high quality education resulting in rewarding employment, lifelong learning, and
enriching the lives of our students and community.

VISION STATEMENT
Mesabi Range Community & Technical College will lead northeastern Minnesota in accessible, innovative, and high quality learning and educational opportunities.

GOAL STATEMENTS
1. Focus on Learning and Learners: Mesabi Range Community & Technical College will focus on the learning needs of northeastern Minnesota by serving a high percentage of local high school graduates and will diversify its student profile by increasing its enrollment of non-traditional, out-of-area, and international students. The college is committed to fostering a nurturing environment with responsive services supportive of a quality education.

2. Curriculum and Program Innovation: Mesabi Range Community & Technical College will create flexible curriculum and program initiatives to meet varied learning needs of the region in the global community.

3. Partnerships at Work: Mesabi Range Community & Technical College will create mutually rewarding partnerships with regional school districts, business and industry, student and community groups, governmental agencies, and other higher education institutions.

4. Technology Integration: Mesabi Range Community & Technical College will develop a technological infrastructure to facilitate the delivery of courses and services using emerging technology.

5. Growing our Resources: Mesabi Range Community & Technical College will maximize and leverage state resources and increase the amount of grant funds and revenue through mutually beneficial agreements with external partners.

6. Leadership Development: Mesabi Range Community & Technical College will create and support leadership opportunities for all stakeholder groups to fulfill the potential of the College and the community it serves.

GUIDING PRINCIPLES:
1. Access: We honor and preserve geographic, low-cost, and timely access to higher education and services to a culturally diverse population.

2. Excellence: We strive for excellence in all that we do.

3. Opportunity: We provide opportunities for student success and community growth.

4. Responsiveness: We respond promptly and effectively to the needs of our stakeholders.

5. Community: We are committed to the preservation of northeastern Minnesota as a strong, viable collection of communities in Minnesota and the world.

6. Innovation: We seek to be a center of progressive, intellectual, and technological growth.

ACCREDITATION
Mesabi Range Community & Technical College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

Higher Learning Commission
North Central Association of Colleges and Schools
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
(312) 263-0456

HISTORY
Mesabi Range Community & Technical College was created by the merger of Mesabi Community College and Range Technical College-Eveleth on July 1, 1996. Mesabi Community College’s antecedent institutions, Eveleth Junior College (established 1918) and Virginia Junior College (established 1921), were consolidated in 1966, forming Mesabi Community College. The Eveleth Area Vocational Technical
Institute was created by the Minnesota Legislature in 1963. Over the years, the legislature mandated a series of name changes for the institute. These name changes culminated in 1989 with the institutional name Eveleth Technical College. Both Mesabi Community College and Range Technical College-Eveleth had been part of regional governance units until 1996. Mesabi was part of the Arrowhead Community College Region (established in 1982), and Eveleth Technical College was part of Range Technical College (established in 1992). These regional college structures were dissolved in the Minnesota State Colleges and Universities reorganization of 1995.

In 1996, Mesabi Range Community & Technical College, along with Vermilion Community College in Ely, joined to form the Laurentian Community & Technical College District, enabling the two colleges to share senior administrative positions, programs, and services.

In November 1999, the MnSCU Board of Trustees formed the Northeast Higher Education District (NHED). Mesabi Range Community & Technical College is a member of the district. Valuing local autonomy and community-based colleges, the vision of the NHED is to enhance student access and learning options throughout the region and focus on each member college’s connection to the community.

ASSESSMENT OF STUDENT LEARNING

Assessment is a systematic inquiry into student learning and other results of the educational process for improvement and reporting purposes. Assessment is required to maintain accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools. Assessment also helps the College to create a shared academic culture dedicated to assuring and improving the quality of higher education.

Mesabi Range College has developed multiple methods of assessment in order to improve student learning. Assessing with multiple measures provides the College with the opportunity to gather information from different perspectives.

- Computerized Placement Test (CPT)
- Classroom Assessment
- Course Assessment
- Program Review
- Portfolios
- Developmental Education Assessment
- College Services Assessment
- New Student Surveys
- General Education & Employer Surveys
- Transfer Surveys & Data
- Placement Surveys (Career Programs)
- Graduate Exit Surveys
- Certification Tests (Career Programs)

Mesabi Range Community & Technical College has identified four major general education goals for student success in order to assist students in developing lifelong learning skills that will help them succeed in the world today and meet the challenges of the future. These goals are addressed in courses across the curriculum, and methods of instruction and assessment are varied.

Mesabi Range College’s General Education Philosophy

Mesabi Range Community & Technical College provides an appropriate general education component in all degree, diploma and certificate programs as an essential intellectual and practical foundation for students’ lifelong learning.
Goals for Student Success
Mesabi Range Community & Technical College works toward the creation of an informed citizenry with the ability to communicate effectively, to think critically, develop mathematical skills, and use information technology.

Communicate Effectively
Students of Mesabi Range Community & Technical College will use oral and written language appropriately and effectively in the various contexts of personal and professional life. Students will be able to:

• write a clear, well-organized document appropriate to audience and purpose;
• present a well-organized speech appropriate to audience and occasion;
• choose, use and assess appropriate verbal and nonverbal behavior in job and personal situations;
• apply appropriate listening skills in various situations;
• participate effectively in groups in order to achieve a common goal;
• read a document and demonstrate an understanding of its content;
• research and use information appropriate to the task.

Think Critically
Students of Mesabi Range Community & Technical College will apply effective critical/creative thinking and reasoning skills to personal and professional decision-making, problem-solving, and evaluative reasoning. Students will be able to:

• apply knowledge and skills to new problems and situations;
• make informed decisions;
• recognize and apply an appropriate model of problem-solving;
• acknowledge and incorporate a value framework in various personal and professional situations.

Demonstrate Mathematical Skills
Students of Mesabi Range Community & Technical College will demonstrate the ability to solve quantitative problems and draw conclusions within various contexts. Students will be able to:

• perform basic math calculations and applications;
• read a mathematical problem and extract relevant data;
• interpret data and draw logical conclusions;
• perform math functions necessary in coursework and career fields;
• perform math functions necessary in daily living.

Use Information Technology
Students of Mesabi Range Community & Technical College will demonstrate the ability to employ information technology in various disciplines/programs and professional life. Students will be able to:

• demonstrate skill in basic computer technology and applied computer skills;
• perform word processing/keyboarding skills;
• apply current technology to learning and occupational situations;
• demonstrate the ability to access information electronically.

General Education assessment is accomplished at several points throughout the curricula (entry, in-progress, graduation, post-graduation). The College uses General Education assessment information to improve both the process of assessment and the effectiveness of General Education at Mesabi Range.
GENERAL INFORMATION

DIRECTORY OF COLLEGE SERVICES

Mesabi Range Community & Technical College is committed to providing its students with opportunities for intellectual and social growth and development. Mesabi Range’s Student Services and activities programs are designed to meet the unique needs of students and to provide an environment of growth.

Academic Advising
218-749-7750 (Virginia), 218-744-7524 (Eveleth)
8:00 a.m.-4:30 p.m.
(Appointments 8:30 a.m.-4:00 p.m.)

Advising is an integral part of student success at Mesabi Range. All students have the opportunity to discuss educational, personal, and career interests and goals with counselors or advisors. Other advising services include assistance with course selection, transfer, study skills, goal setting, and motivation.

Admissions
218-749-0313 (Virginia), 218-744-7506 (Eveleth)
www.mesabirange.edu
8:00 a.m.-4:30 p.m.

Student admission to Mesabi Range Community & Technical College is managed through the Admissions and Enrollment Services Office. Applications for admission, on-campus housing, college tours, and other college information can be obtained from this department.

Bookstore
218-749-7733 (Virginia), 218-744-7492 (Eveleth)
Hours will be posted.

The bookstores maintain books and supplies required to complete coursework at MRCTC. New and used books, imprinted clothing, computer software, and a wide variety of miscellaneous items are available to meet school and personal needs. No book returns will be accepted after the fifth (5th) day of the semester. Books must be in new condition and in their original wrapping. Books that have shrinkwrap removed may not be returned. VISA & MasterCard are accepted.

Business Office
218-749-7742 (Virginia), 218-744-7497 (Eveleth)

Hours will be posted.

Tuition and fees due to the College are paid at the Business Office. Checks should be made payable to Mesabi Range Community & Technical College. All financial aid is issued through this office.

Career Center (Learning Center)
218-749-0319 (Virginia)
8:00 a.m.-4:30 p.m.

All Mesabi Range students are encouraged to use the services of the Career Center located in the Learning Center. A library of two- and four-year college catalogs is available, as well as information on transfer requirements, academic planning, career exploration, and job search techniques.

Career Placement Services
218-744-7471 (Eveleth)
8:00 a.m.-4:30 p.m.

Mesabi Range has developed a placement service to aid occupational graduates in finding employment. Registrants will be aided in obtaining employment upon graduation from technical programs and upon reactivation of their files in later job placements. Services offered include job search and resume writing assistance, mock interviews, distribution of available job opportunities, and more. Job openings that are received by the Career Placement Office are posted on the College’s website.
Child Care
Y-Wee Care Center (Virginia Campus)
218-749-7777
6:30 a.m.-5:30 p.m., M-F (year-round)
Y-Wee Care is a state-licensed child care center open to the public, providing care for children in the age range of 3 months through kindergarten. Learning activities, music and movement, literature, art, gardening, and outdoor play are enjoyed by the children. Social skills and YMCA core values (caring, honesty, respect, & responsibility) are emphasized. Y-Wee Care is a cooperative between the College and the Mesabi Family YMCA. For more information, call or stop in.

Computer Labs And Services
218-749-7775 (Virginia), 218-744-7464 (Eveleth)
Hours will be posted.
Mesabi Range Community & Technical College provides state-of-the-art computer facilities for classroom instruction and student applications. The computer labs offer a broad spectrum of current software for student use as well as full internet access and e-mail capabilities. Lab monitors are on duty to offer assistance, and extended hours allow students to complete class assignments on a timely basis. Frequent upgrades to both computer software and hardware assure the student the latest in innovative technology. Computer software for students with disabilities is available.

Counseling Services
218-749-7750 (Virginia), 218-744-7533 (Eveleth)
Counseling services are provided on both campuses, either by appointment or on a walk-in basis. Services include: academic, personal and career counseling. To maximize the counseling services, outside service providers are accessed to meet the student’s needs when appropriate. A variety of support groups, workshops, and student success programs are instituted as necessary.

Disability Services
Virginia Campus: Lindsay Lahti, Disability Director, Room L127 – 218-749-0319 (V/TTY 218-749-7783)
Eveleth Campus: Lindsay Lahti, Disability Director, Room 100 – 218-744-7467 (V/TTY 218-744-7455)
8:00 a.m.-4:30 p.m. (or by special appointment)
Mesabi Range Community & Technical College ensures that no otherwise qualified person with a disability will be denied access to and participation in programs, services, and activities due to their disability. MRCTC does not discriminate against students with disabilities and provides reasonable accommodations for a student, enabling that student an equal opportunity to participate in college-sponsored programs.

All students with disabilities who seek an accommodation at MRCTC have the responsibility to identify themselves to the Disability Services Offices and/or the Student Support Services Program. Identification may take place at the time of admission or at any time during the student’s course of study. All students with disabilities have the responsibility to provide documentation, at their own expense, in order to be eligible for accommodations. The request for accommodation and supporting documentation must be provided in a timely manner.

Services provided by the Disability Services Office may include assistance with application and registration procedures, career and academic counseling, auxiliary aids and adaptive equipment, classroom and testing accommodations, advocacy, accessibility information, and referrals to community agencies.

www.mesabirange.edu/disability_services
**eFolio Project**
Lisa Kvas – eFolio Program Manager
218-780-3274 (Eveleth) 800-657-3860
8:00 a.m. – 4:30 p.m.
Mesabi Range’s eFolio Minnesota initiative leverages MnSCU’s award-winning eFolio MN technology to create an innovative, state-of-the-art system to support web-based personal, professional and regional economic development and assessment among K-12 students and institutions, organizations, community members, job seekers, employers and economic developers.

**Enrollment Services**
218-749-0313 (Virginia), 744-7506 (Eveleth)
www.mesabirange.edu
8:00 a.m.-4:30 p.m.
Individuals wishing to attend Mesabi Range Community & Technical College, or anyone needing more information on Mesabi Range Community & Technical College, may contact the Enrollment Services Office. College tours, application forms, and up-to-date information on college programs, requirements, and enrollment procedures are available through this office.

**Equity Services**
Tracy Delich, Equity Coordinator, Title IX Compliance Officer, Student Services Suite, Eveleth Campus
218-744-7533
An increasing number of students are seeking training and jobs in fields that have been considered non-traditional for their gender. An equity coordinator on the Eveleth Campus assists these students so that they can succeed in college as well as in the workforce. If you have a complaint, concern or issue regarding gender equity, please contact Tracy Delich.

**Financial Aid**
218-749-7753 or 218-749-7755 (Virginia)
9:00 a.m.-3:00 p.m. Monday through Friday
218-744-7496 (Eveleth)
8:00 a.m.-2:30 p.m. Monday through Thursday
8:00 a.m.-1:00 p.m. on Friday (Eveleth)
The primary function of the Financial Aid Office is to assist students in obtaining financial assistance in the form of grants, scholarships, loans, and student employment in order to ensure their access to education. Financial aid is available to full- and part-time students.

**Food Service**
218-749-7718 (Virginia), 744-7462 (Eveleth)
Hours will be posted.
A cafeteria service for snacks, breakfast and lunch is available for the convenience and enjoyment of students, staff, and guests on both campuses. Vending machines with soft drinks and snacks are also readily available.

**Housing**
218-748-2433 (Virginia), V/TTY 218-404-0992 (cell)
www.mesabirange.edu
Mesabi Range has on-campus housing available to all Mesabi Range students. Our housing units provide a comfortable, private environment at a reasonable cost. The on-campus units are located on the Virginia campus. They are “apartment-style” units with four bedrooms, two bathrooms, and they are partially furnished with beds, desks, furniture, stove, refrigerator, microwave, dishwasher, washer, dryer, cable and wireless internet. The housing facility is operated by trained staff under the direction of the Residence Hall Director. Contact Mesabi Range’s Enrollment Services for more information.
Library
College Center (Virginia Campus)
218-749-7712, Circulation Desk
8:00 a.m.-8:00 p.m. (Monday through Thursday)
8:00-4:00 (Friday) 9:00 a.m.-3:00 p.m. (Saturday)
and
3:00 p.m.-7:00 p.m. (Sunday)
The Library is a vital part of the college instructional program. The Library cooperates with classroom instructors to ensure Mesabi Range students develop skills in information literacy appropriate to their career and professional goals. An extensive collection of books, periodicals, audiovisual materials, and electronic resources are available for student, staff, and community use. The Mesabi Range collection is accessed from locations both on and off campus via the Internet using WEBPALS, which also allows identification and borrowing of materials from more than eighty libraries statewide.

Learning Center
218-749-0319 (Virginia), 218-744-7471 (Eveleth)
Open throughout the school day.
Mesabi Range’s Learning Center offers many services to assist students with the challenges of college. Help is offered for improving study habits, test-taking skills, and time management. Trained peer tutors are available, at no expense to students, to assist with specific subject areas. Technology to assist students with disabilities can be accessed through the Learning Center.

Minority Services
218-749-7788 or 218-749-7765 (Virginia)
8:00 a.m.-4:30 p.m. (or by special appointment)
The College provides advisement, support, activities, and advocacy to meet the needs of minority students. The Minority Services’ advisors monitor campus-wide activities that are designed to improve cultural awareness and diversity.

Assessment Testing
Computerized Placement Testing (CPT)
Enrollment Services
218-749-0313 (Virginia), V/TTY # 218-749-7783
218-744-7506 (Eveleth)
8:00 a.m.-4:30 p.m.
An assessment test is administered to all students enrolling for more than seven credits. Students will be assessed in Math, Reading and English. This assessment test will help ensure a student’s success in their courses and programs. Upon request, and with the provision of the appropriate documentation, accommodations can be provided to students with physical or learning disabilities. Students should notify the Disability Services Office at least one week prior to testing if accommodations are required.

Records Office
218-749-7762 (Virginia), 218-744-7498 (Eveleth)
Hours will be posted.
Student academic records and grade reports are maintained by the Records Office. Students may obtain transcripts, registration materials, and academic petition forms through this office. Information on veterans, personal, financial, and education questions may be obtained in the Records Office.

Student Support Services – Program (SSS)
218-749-7750 (Virginia)
8:00 a.m.-4:30 p.m. (or by special appointment)
The Student Support Services Program (also known as REACH), provides eligible students with a variety of services including academic, career, and personal support services, free tutoring, support groups, and cultural activities. Participants in the SSS program are eligible to receive free credits by enrolling in a variety of courses and workshops. Program participants must meet eligibility criteria and must apply for acceptance into the program by contacting the SSS Program Director.
Tours
Enrollment Services
218-749-0314 (Virginia), 218-744-7506 (Eveleth)
www.mesabirange.edu
By special arrangement.
Visitors are always welcome at Mesabi Range, and tours can be arranged by contacting the Enrollment Services Office. College visits are hosted by students and staff members who will acquaint you with the college, answer questions, and arrange appointments with faculty and staff upon request.

Veterans Affairs
Records Office
218-749-7762 (Virginia), 744-7498 (Eveleth)
8:00 a.m.-4:30 p.m.
Information regarding services and financial aid for veterans can be obtained from the Records Office. Veterans need to complete the Veterans Administration Form 22-1990 upon being accepted to the College to ensure sufficient time to process advanced payment claims through the local Veterans Affairs Office.

Veteran’s Resource Center
Wes Judkins – Veteran’s Affairs Coordinator
218-744-7467
Mesabi Range Community and Technical College has a Veteran’s Resource Center (VRC) which is located at the Eveleth campus in the Learning Center. The VRC is staffed by Wes Judkins. The mission of the VRC is to assist veterans and their families in accessing resources to assist them in completing school.
ADMISSIONS
Mesabi Range Community & Technical College is committed to promoting equal educational and employment opportunities without regard to race, color, creed, religion, gender, national origin, age, disability, sexual orientation, reliance on public assistance, or organizational membership.

College Visit Program
Find out if Mesabi Range is right for you. We invite you to visit us anytime, Monday through Friday from 8 a.m. to 4 p.m. Your private tour will be conducted by a personal guide who will arrange for you to visit with the instructors, advisors, or program coordinators of your choice, talk one-on-one with our financial aid staff, or speak with coaches. We want you to experience Mesabi Range Community & Technical College for yourself. We offer:

• a meeting with a member of the Enrollment Services staff to discuss Mesabi Range’s application and admissions procedures.
• a campus tour, conducted by students or staff members, to accommodate student’s interests and needs.
• an appointment with a faculty member from an academic department or technical program.
• other appointments, including a meeting with financial aid or athletic staff members.

To ensure that the Enrollment Services Office is able to provide prospective students with a complete and well-planned visit, please call, write, or email the Enrollment Services Office to arrange a campus visit.

Toll Free: 1-800-657-3860
Local: 218-741-3095
V/TTY: 218-749-7783
b.kochevar@mr.mnscu.edu or j.gregg@mr.mnscu.edu

Enrollment Services – Virginia Campus
Mesabi Range Community & Technical College
1001 Chestnut Street West
Virginia, Minnesota 55792

Enrollment Services – Eveleth Campus
Mesabi Range Community & Technical College
1100 Industrial Park Drive
Eveleth, MN 55734

Admissions Policy
Mesabi Range Community & Technical College is committed to an open door admissions policy with the following requirements:

1. The basic requirement is a high school diploma or GED certificate.
2. A person who has neither a high school diploma nor a GED certificate may be admitted if, at the discretion of the College, that person demonstrates the potential for being a successful college student as determined by the College’s Ability to Benefit assessment standards.
3. Application Fee – Submit the required $20.00 non-refundable application fee
4. College/Technical College Transcripts
Admission to the College does not guarantee admission to a specific program. Academic, fiscal and/or facilities considerations may limit admission to particular programs offered by the College. Students who are denied admission to the College may file an appeal with the Dean of Student Services.

Ability to Benefit Assessment
Students who do not have a GED or High School diploma may qualify for admission under the Ability to Benefit Policy. To qualify, students must be assessed by taking the Computerized Placement Test (CPT) assessment. Achievement of satisfactory scores on this assessment will allow students to be admitted to the College.

To be eligible for financial aid, a candidate must meet or exceed the minimum score on each of the three approved tests in a single testing experience. Candidates who do not meet or exceed
all three passing scores may retake the complete set of three tests in alternate form.

**Proof of Immunization**

The immunization law states that no student may remain enrolled in a public or post-secondary educational institution without documentation of the appropriate immunizations, a statement signed by a physician that the student is medically exempt as outlined in the law, or a notarized statement that the student has not been immunized because of the student’s conscientiously-held beliefs. No proof of immunization is needed from:

1. Students who have graduated from a Minnesota High School in 1997 or later.
2. Students who were born before 1956.
3. Transfer students from a different post-secondary school, if transcripts or other information from the previous school indicate that the student has met immunization requirements.

**Determination of Residency**

Residence status of students shall be determined at the time of registration. The permanent residence of the student’s parents (or guardian if approved by the Chancellor or designee), is considered for students under 21 years of age. For students 21 years of age or older, the student’s permanent residence is considered.

**Exceptions to the above policies are:**

- Students who have graduated from a Minnesota high school within two calendar years of application for admission to a Minnesota community college shall be granted resident status.
- Students who have graduated from a Minnesota high school and have resided in Minnesota substantially since graduation shall be granted resident status. Service in the Armed Forces of the United States shall not be considered a disruption of continuous residence.
- Students who have been employed full-time in Minnesota for one year immediately prior to the date of entrance to college shall be granted resident status, provided all income derived from such employment was subject to taxation.
- Spouses of Minnesota residents, as defined above, shall be granted resident status, provided that they are living with the spouse, and the couple’s place of residence is within Minnesota. This rule shall apply regardless of the age of either spouse.
- Students serving in the armed services in Minnesota, as well as their spouses and children, shall be granted resident status.
- Aliens who are employed in Minnesota on a special visa for employment purposes, and whose wages are subject to taxation by the State of Minnesota, shall be granted resident status. The employment period must be at least twelve months (immediate past or immediate future) and must be documented by a contract or a copy of the previous year’s tax return and the employment visa. This status shall also be granted to the spouses and children of such employees.
- Native Americans of 50% Indian blood who are born in Canada are to be considered residents for the purpose of registration in a Minnesota community college.
- Permanent residents of the United States, and who have been employed in seasonal agricultural labor in the State of Minnesota for a cumulative time period of not less than one year during the past five years, shall be granted resident tuition status. This status shall also extend to the spouses and children of these individuals.

**Reciprocity with Wisconsin, North Dakota, South Dakota, and Manitoba, Canada**

Wisconsin, North Dakota, South Dakota, and Manitoba, Canada residents may attend public institutions in Minnesota on the same basis that Minnesota residents attend these institutions. These students are charged tuition fees similar to those charged to Minnesota residents. Potential students from these states or this province should
contact their high school counselors or principals for the address of the state office which handles applications for the reciprocity program.

Midwest Student Exchange Program – MSEP

Students from the states of Michigan, Missouri, Kansas, and Nebraska may enroll in designated Minnesota institutions and programs at reduced tuition levels outside their home state. Student's tuition rate will be 150% of the Minnesota resident tuition rate.

ADMISSION PROCEDURES

Application for admission is open for the fall, spring, and summer sessions. Students may apply and register for classes through the first five class days of the spring or fall semester. Early application and registration is recommended.

Enrollment Category

- **Degree-seeking:** Students are considered to be in the degree-seeking category if they have enrolled in eight credits or more and are working toward a degree or certificate.

- **Part-time:** Students are considered to be in the part-time student category if they register for 7 or fewer credits and are not working toward a degree or certificate. All part-time students must submit a special Part-Time Student Registration Form available from the Student Services Office. Prior to registration for the 8th credit, part-time students must complete the admission process.

- **Credit Load:** See Credit Load in the Academic Policies and Procedures section of the catalog (page 28).

Limited English Proficiency (LEP)/English as a Second Language (ESL) Statement

Students who do not claim English as their first language must self-identify to an advisor to receive Limited English Proficiency (LEP) services during assessment testing. Students who identify themselves as needing English as a Second Language services, or wish to access LEP services during assessment testing, will not be discriminated against enrolling in Mesabi Range programs or services. If an interpreter is needed to communicate in a language other than English, please contact Lindsay Lahti at 218-749-0319 or 1-800-657-3860 or TTY 218-744-7455 (Room 100, Eveleth Campus).

Freshmen

- Students who wish to register as freshmen must complete a Mesabi Range Community & Technical College application or standard MnSCU Application Form. Forms may be obtained from the Mesabi Range Community & Technical College’s Enrollment Services Office or any Minnesota high school counselor.

- After completing the student portion of the application, applicants should contact their high school counseling office and have a transcript of courses and grades (which includes standardized test results and high school rank information) sent to Mesabi Range Community & Technical College.

- Applicants must pay a $20 non-refundable application fee.

- College/Technical College Transcripts.

- Applicants must supply documentation (month and year) of immunization against mumps, measles, rubella, diphtheria, and tetanus, if born in 1957 or later. Refer to the “Proof of Immunization” section.

- Applicants must take the Computerized Assessment Test (CPT).

International Students

Qualified international students must complete all of the following steps in order to be accepted for admission to Mesabi Range Community & Technical College. I-20 forms, authorizing admission into the United States for educational purposes, will be issued when all admission requirements are met and applicants have been accepted.
• Applicants must complete and sign a Mesabi Range or MnSCU Application.
• Applicants must send a non-refundable $20 application fee.
• Applicants must submit a transcript of grades from their high school. Applicants must have graduated from the equivalent of a United States high school; transcripts should indicate this. It is most important that the transcripts be translated into English.
• International student applicants will be required to submit a detailed Financial Statement. Applicants should not rely on financial aid from the College or from other employment in the United States as a source of income. Applicants must submit proof of sufficient funds to cover all costs for an entire academic year.
• Applicants must purchase, before the time of registration, the MnSCU Injury & Sickness Insurance Mandatory Plan designed for international students. Students must maintain insurance coverage throughout the duration of attendance at MRCTC. Student coverage will be reverified every year. It is the student’s responsibility to make sure insurance is renewed every year of attendance. MRCTC assumes no responsibility for medical expenses.
• English proficiency is required, and documentation supporting proficiency is necessary in order for acceptance. The following measures of English proficiency are acceptable:
  • TOEFL (Test of English as a Foreign Language): score of 500 or more (paper), or 173 or more (computer).
  • Michigan Test: score of 75 or more. ESL Center (such as Hamline University) recommendation: range of 17-20.
  • ESL – English as a Second Language Program at the University of Minnesota recommendation: “exempt from further ESL – ready for full-time academic load.”
• Documentation of English as primary language from student’s high school on school letterhead.

International students must maintain a full-time course of study (12 – 18 credits) for every semester they are enrolled.

Transfer Students

Applicants who have attended other post-secondary education institutions are considered for admission as transfer students. Those applicants who have completed fewer than 10 semester credits are required to meet the criteria outlined in the previous section on freshmen.

Students transferring to Mesabi Range Community & Technical College from a post-secondary institution need to comply with the College’s admission policies and must complete the following steps before enrolling:
• Complete a Mesabi Range Community & Technical College Application for Admission form.
• Request that official transcripts from each of the secondary and post-secondary institutions attended be sent to the Enrollment Services Office at Mesabi Range Community & Technical College.
• Pay a $20 non-refundable application fee to the Enrollment Services Office.
• Graduates of non-Minnesota high schools shall provide documentation (month and year) of immunization against mumps, measles, rubella, diphtheria, and tetanus, if born in 1957 or later.

Advanced Standing

Mesabi Range Community & Technical College grants college credits and/or advanced placement for the successful mastery of material contained in courses completed at the high school level when those courses are equivalent to college courses. Mesabi Range will evaluate student records for the Advanced Placement (AP) Program, the International Baccalaureate (IB) Program, and the College-Level Examination Program (CLEP).
Credit granted through IB and CLEP programs may be used for partial fulfillment of the liberal education distribution requirements for the A.A., A.S., and A.A.S. degrees. A maximum of 24 credits obtained through advanced standing testing may be applied toward one of Mesabi Range’s degree programs. Students intending to transfer to other institutions should be aware that the receiving institution determines the acceptability of AP, IB, and CLEP credits; these institutions may have different regulations from those of Mesabi Range Community & Technical College. Contact the College’s advising staff for more information about advanced standing.

Transfer of Credits

Transcripts will be evaluated to determine acceptable credits to be applied to degree or certificate programs. Lower division credits earned at a college or university accredited by a regional accrediting association may be accepted by the College’s advising staff and the Academic Administrator. The grade point average (G.P.A.) from the transfer institution is not used in computing the student’s G.P.A. at Mesabi Range College.

Transfer students may be given provisional admission until all transcripts are received by the College. Failure to supply the necessary transcripts may lead to suspension from the College. Students are responsible for all credits they register for prior to the College receiving late transcripts.

Students who have paid their application fee at the former Range Technical College-Eveleth will have their application fee waived.

Minnesota National Guard

Persons enlisted in the Minnesota National Guard may be eligible for educational benefits through the Guard. Such individuals should contact their Commanding Officer for more information and financial assistance registration materials.

Minnesota Post-Secondary Enrollment Options Act (PSEO)

The purpose of the Minnesota Post-Secondary Enrollment Options Act is to promote rigorous educational pursuits and to provide a wider variety of options for Minnesota’s 11th and 12th grade high school students. The program enables students to seek enrollment in eligible post-secondary institutions for college-level courses/programs on a full- or part-time basis.

Students must be aware that the social and academic atmosphere at colleges may vary greatly from that at high schools. More freedom and less structure in the academic and social setting of a college require maturity and responsibility in order for a student to succeed.

PSEO Eligibility Requirements

- All PSEO students shall be enrolled on the basis of available space and/or other appropriate, defined local standards and procedures.
- Students must be classified as high school juniors or seniors and cannot be classified as full-time students in their high schools.
- 12th grade students are eligible and may be considered for enrollment if their high school certifies them as being at or above the 50th percentile in the class rank. If this criterion is not met, students may be admitted after receipt of a letter of recommendation from the high school principal or counselor, an interview with a member of Mesabi Range’s advising staff, and the approval of the academic administrator.
- 11th grade students are eligible and may be considered for enrollment if the high school certifies them as being at or above the 66th percentile in the class rank.
- If a high school does not compute student rank, students may be admitted on the basis of an overall G.P.A. of 2.5 or greater if in the 12th grade, and 3.0 or greater if in the 11th grade.
PSEO Admission Procedures

- Permission to register must be obtained from the high school administration.
- Formal application to the College must be completed.
- Students must arrange with the College to take the Computerized Placement Test (CPT) to determine college level placement in English, mathematics, and reading.
- Students must place at college level in English and reading to be admitted.

Accepted students will receive a copy of the College’s minimum academic progress requirements and will be subject to these requirements. Students will receive high school credit for successfully completing classes taken at Mesabi Range. Complete information and program requirements may be obtained by contacting the Enrollment Services Office or the PSEO Coordinator at Mesabi Range.

Veterans

Veterans, war orphans, and dependents of disabled or deceased veterans have the opportunity to continue their education under various educational programs administered by the United States Veterans Administration. Veterans may be entitled to obtain these benefits while pursuing a course of study at Mesabi Range Community & Technical College. Certification of Enrollment Forms must be completed by the Records Office. All inquiries concerning the ongoing veterans program should be directed to the Records Office.

EDUCATIONAL PLANNING

At Mesabi Range students work with professional educators, counselors, and advisors to assess their academic skills, plan their educational programs, and prepare for future employment or education.

Assessment Exam

All students who register for seven or more credits at Mesabi Range are required to complete the Computerized Placement Test (CPT). All students registering for an English composition or a math class are required to take the CPT exam even if they have seven or fewer credits. This assessment program combines student background information with test results in English, reading, and mathematics to identify students’ current levels of ability and to aid in course placement. The assessments are not graded and are not used for any admission purposes. The purpose of assessment is to insure that students are placed into classes appropriate to their ability, to help students plan an effective course of study, and to identify support services at Mesabi Range that assist in achieving success.

Students meet with counselors and advisors to review CPT results, identify program requirements, and begin to develop an educational plan.

Students who have taken a CPT at another MnSCU college in the last two years are not required to take the assessment again, provided they send a copy of the test scores to Mesabi Range’s Enrollment Services Office.

Students transferring to Mesabi Range who have completed college level classes with a “C” or better should check with an advisor to see which portions of the CPT may be waived.

Students with disabilities who need accommodation for CPT testing should contact Disability Services at 218-749-0319 (Virginia).

English as a Second Language (ESL)

MRCTC administers appropriate tests to students who self-declare English as a Second Language. Students should self-disclose prior to the testing. The Learning Center staff will serve as a liaison between the student and the appropriate college departments, and community resources to facilitate services for the ESL student.

The tests given include:

- Limited English Proficiency (LEP) Reading Assessment – Accomplice Accuplacer
- Written Essay on a given topic – 30 minute Essay is scored by MRCTC English Instructors using departmental devised scoring method.
Placement for Success

Placement for Success is a statewide MnSCU policy that ensures students enter college coursework with the skills necessary to be successful. The results of the assessment tests determine which English, reading, and mathematics courses a student needs to take in order to meet the requirements of their chosen program. All certificate, diploma, and degree programs require students to have or develop basic skills. In addition, some certificate and diploma programs, and all degree programs, require students to have or develop intermediate and college level skills. Check the requirements of your program for specific information.

Students who believe that their placement into any of these required developmental classes is inaccurate and who wish to retest must make an appointment with Enrollment Services to retest. Students should know, however, that few retests result in placement changes. Only one retest is permitted per academic year, and retests must be completed no later than the first week of the semester.

Developmental Education

Coursework in reading, math, study skills, or English that is numbered below 1000 (example: ENGL 0082) is considered to be developmental coursework that leads to college-level work. Depending upon a student’s academic program requirements and CPT placement, specific developmental courses may be required. These courses are not counted toward graduation, and each must be passed with a grade of “C” or higher in order to proceed to the next course in the sequence. Students may take developmental courses more than once in order to attain the “C” grade; however, financial aid will only be available for developmental courses twice.

The goal of developmental education is to provide students with a solid foundation of basic skills and knowledge as they move on to college level classes. Research has shown that students who complete developmental courses are more successful in college than students who do not complete them. Placement for success into developmental courses reflects the commitment Mesabi Range has to insuring the success of all students and to providing educational opportunities to those who enroll.

REGISTRATION

The registration period for each semester is outlined in the College calendar. Currently enrolled students should register prior to the beginning of each semester. Each student is required to have his or her program plan reviewed by a counselor or advisor prior to registration. Professional counselors and advisors are available to assist students in reviewing their academic backgrounds, interests, and goals, and in making appropriate immediate and long-range plans.

Registration Procedures

Registration consists of the following:

- Program planning and review of the schedule with a counselor or advisor.
- Registering for classes on-line.
- Payment of fees.

Late Registration

During fall and spring semesters, students may not enroll after the fifth day of classes. The summer term may be subject to a different drop/add period. Please check with an academic advisor. Students who enroll after the first day of classes will be required to make up all missed class work.

Drop/Add Policy

Students may make a change(s) in their course schedules (drops and adds) through the fifth class day of the semester. Students will not be obligated for tuition and fees for courses dropped within the specified time frame. Dropped classes do not appear on a student’s transcript but must be initiated by the student with an advisor and must be processed by the Records Office. Students may choose to access the online services for dropping and adding courses up to the fifth day. Although it is considered the student’s responsibility to drop
courses, the College reserves the right to drop students from courses for non-payment and/or non-attendance while holding students responsible for payment of tuition and fees.

Drop/Add Policy for Courses Which Begin on Irregular Start Dates

Students may drop or add courses which begin on an irregular schedule prior to the second class session or within two days after the first class session, whichever comes first. Students will not be held financially responsible for courses dropped within the aforementioned time frame.

Financial aid for all registered credits will be disbursed at the regularly scheduled disbursement date (tenth day of the semester). Students who drop “irregular start date” courses for which they have received financial aid will be required to repay in accordance with federal and state repayment policies.

Withdrawal Policy

Students may withdraw from courses after the 5th class day of the semester through the 60th day of the semester. Grades of withdrawal (“W”) will be recorded on the student’s transcript. Students must initiate the paperwork process to complete course withdrawals by seeing an academic advisor. Students may not complete this process online. Withdrawals which are not officially processed through the Records Office will be recorded on students’ permanent records with a grade of “F.”

No refunds will be issued for partial withdrawals. Refunds for total withdrawal are issued in accordance with the College’s Refunds Policy.

Withholding Diplomas and Transcripts

The College will withheld the issuance of diplomas and transcripts to students until all money due the College has been paid, with the exception of loans scheduled to mature at a future date. Students with unpaid college financial obligations may not be permitted to register for subsequent semesters until obligations have been met or payment arrangements have been made.

COLLEGE COSTS

Schedule of Fees

The schedule of fees is established by the Minnesota State Colleges and Universities and is subject to change each year.

Application Fee

An application fee of $20 is charged to each credit-seeking applicant. Exception: This fee may be waived by the college for non-matriculating students taking courses for credit.

Tuition

Tuition for a semester is based upon the number of credit hours a student takes. Tuition charges per credit are the same for day, evening, or summer session courses. Auditing courses requires the same payment as courses taken for credit.

Payment of tuition and fees must be made on or before the first (1st) day of the semester. Paid in full is defined as having made full payment, enrollment in an approved payment plan (FACTS), a completed and filed financial aid application, or payment by third party. Students not meeting at least one of these criteria will be dropped from all classes but will still be charged tuition and fees. If you do not plan on attending, you must notify the college or you will be charged for tuition and fees. If you have questions call the Business Office. Fee charges and policies are as of the publication date and subject to change.

Estimate of Costs

Books and supplies are not included in the cost of tuition and fees. Book costs vary for each student each semester. The average cost for books and supplies for a full-time student is $1,000 per school year. This may vary depending on the student’s programs and credit loads.
**Senior Citizen Fee**

A senior citizen who is a legal resident of Minnesota is entitled without payment of tuition or activity fees to attend courses offered for credit, audit any courses offered for credit, or enroll in any noncredit courses in any state supported institution of higher education in Minnesota when space is available. This includes Mesabi Range Community & Technical College.

Senior citizens enrolled under this program must pay any materials, personal property, or service charges for the course. In addition, a senior citizen who is enrolled in a course for credit must pay an administrative fee to recover any course costs. There shall be no administrative fee charges to a senior citizen auditing a course.

**Tuition and Fees Payment Policy**

Registration is complete only after a student has paid tuition and fees in full. Payment of tuition and fees must be made on or before the first (1st) day of the semester. The College may drop classes for students who have not paid or made the appropriate arrangements for payment, as well as hold students responsible for payment of those charges. Students who are removed from on-campus housing due to conduct violations will be responsible for payment of rental fees through the term of the contract. Students who are suspended or expelled will be held responsible for the tuition and fees for the semester in which the disciplinary action was taken.

**Refund Policies**

Students may drop classes with no obligation for tuition and fees through the fifth day of the semester. Students are obligated for payment for any classes dropped after the five day drop/add period. Students who have received Financial Aid after the drop/add period will be obligated to repay a pro-rated portion of their aid. For courses which begin on an irregular start date, students may drop classes with no obligation for tuition and fees prior to the second class session or within two days after the first class session, whichever comes first. Financial aid for all registered credits will be disbursed at the regularly scheduled disbursement date (tenth day of the semester). Students who drop “irregular start date” courses for which they received financial aid will be required to repay in accordance with federal and state repayment policies. If a fee for a dropped class is for the recovery of costs already incurred by the College, refund of such fees is at the discretion of the Provost or designee.

**Refunds for Partial Withdrawals**

Refunds are not given to students who withdraw from a portion of their total credit load after the drop/add period.

**Refunds for Total Withdrawals**

Refunds for official total withdrawal from the College will be issued in accordance with the following schedule:

**Regular Academic Year:**

<table>
<thead>
<tr>
<th>Withdrawal Period</th>
<th>Refund %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st through 5th class day of the term</td>
<td>100</td>
</tr>
<tr>
<td>6th through 10th class day of the term</td>
<td>75</td>
</tr>
<tr>
<td>11th through 15th class day of the term</td>
<td>50</td>
</tr>
<tr>
<td>16th through 20th class day of the term</td>
<td>25</td>
</tr>
<tr>
<td>after 20th class day</td>
<td>0</td>
</tr>
</tbody>
</table>

**Summer Session:**

<table>
<thead>
<tr>
<th>Withdrawal Period</th>
<th>Refund %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st through 5th class day of the term</td>
<td>100</td>
</tr>
<tr>
<td>6th through 10th class day of the term</td>
<td>50</td>
</tr>
<tr>
<td>after the 10th class day of the term</td>
<td>0</td>
</tr>
</tbody>
</table>

**Summer Session**

*Please see an academic advisor and financial aid officer prior to dropping or withdrawing from courses to check on your refund/repayment schedule, satisfactory academic progress, and financial aid eligibility.*
Refund/Repayment of Federal (Title IV) Funds

If a student who has received Federal Grant or Loan funds withdraws from the college, the Financial Aid Office is required to calculate the amount that the student may have to repay the Federal Government. The calculation is for the amount that the student earned and the amount of unearned funds that have to be returned to the appropriate Title IV program. This calculation will be made notwithstanding current MnSCU refund policies.

If the student does a total withdrawal prior to completing the 60% point of the term, a prorated refund of Federal funds will be used. The student can estimate the amount of refund due the Federal Government by dividing the number of days in the term, by the date the student withdraws. This will then give the student an idea of the amount of unearned funds that will need to be returned to the Federal Government. The refund of Federal Funds will be in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Perkins Loans
- Federal PLUS Loans
- Federal Pell Grants for which a return of funds is required
- Academic Competitiveness Grant for which a return of funds is required
- TEACH Grant for which a return of funds is required
- Federal Supplemental Educational Opportunity Grants (FSEOG) for which a return of funds is required
- Other assistance under Title IV for which a return of funds is required

Students who withdraw after the 60% point of the term will not have to repay any Federal funds.

Students who withdraw must contact an advisor in the Student Services Office to initiate an official withdrawal form.

Students who do not officially withdraw will have their withdrawal date calculated at the 50% point. Students who do not officially withdraw can therefore anticipate that 50% of all Federal Funds received were unearned and therefore must be repaid.

In all instances regarding the refund of Federal funds, the college will bill the student for the amount that has been returned to the Federal program or programs.

If the student owes a repayment of a Pell Grant because of a total withdrawal from college and fails to establish a repayment schedule with the Business Office within forty-five (45) days, the National Student Loan Database System (NSLDS) will be notified that the student is in an over-payment status. The student will not be eligible for any future Title IV Federal Student Aid until the entire over-payment status has been fully repaid.

Refund/Repayment of Non-Federal Funds

Refunds for state aid programs and non-state aid programs are calculated on a proportional basis using the state mandated or institutional refund policy. To calculate the minimum refund due to the Minnesota State Grant Program, the SELF Loan Program, and other aid programs (with the exception of the State Work Study Program), the MNHESO Refund Calculation Worksheet and Appendix 14 of the Minnesota State Grant Manual is used.

Tuition Waivers Policy

A full refund of tuition and fees may be made in the case of significant personal circumstances or death or serious injury/illness requiring extensive hospital and/or convalescent care which prohibits return to class within the calendar semester. Students must complete a petition to request a tuition waiver and will be required to provide medical or other official documentation.

If a student’s course schedule is reduced at the convenience of the College, such as in the case of cancellation of classes for insufficient enrollment, tuition and fees will be adjusted without penalty.
Credits and Refunds When Entering the Armed Forces

The granting of credits and refunds to a student who is enrolled at Mesabi Range Community & Technical College and leaves the College to join the armed forces of the United States shall be handled as follows:

• If a student leaves prior to the time when three-fourths of the sessions have elapsed, full refund of tuition and special fees will be made; no credit will be granted.

• If a student leaves during the last one-fourth of the session, he/she shall receive full credit for the courses in which he/she is enrolled if satisfactory academic progress is being made. If granted full credit in all courses, no refund of tuition and special fees will be made.

• If a student leaves during the last one-fourth of the session and if credit is granted in some courses and not in others, refund of tuition and special fees will be proportional to the amount of credit not granted.

Withholding Diplomas and Transcripts of Credits

The College will withhold the issuance of diplomas and transcripts to students until all money due to the College has been paid. Students with unpaid college financial obligations may not be permitted to register for subsequent semesters until obligations have been met or arrangements have been made to pay.

FINANCIAL AID

Mesabi Range Community & Technical College has an extensive financial assistance program to aid students in meeting their college costs. Students’ financial aid at Mesabi Range College may take the form of grants, loans, employment, or scholarships, and is generally awarded in a “package” consisting of more than one type of aid. All financial assistance is awarded for one academic year only. Students must apply each year for continued financial aid.

Financial aid is determined by deducting the student’s expected family contribution from the cost of attending the college. Based upon 2005-2006 rates, the budget of a typical Minnesota resident student living on campus for one academic year includes:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$4,481.00</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Housing</td>
<td>$3,644.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$9,125.00</td>
</tr>
</tbody>
</table>

Several of the occupational programs have tool costs which may range from $300.00 to $2,100.00

How To Apply For Financial Aid

Students must apply for admission to Mesabi Range College. After filing current year federal tax returns, applicants need to complete the Free Application for Federal Student Aid (FAFSA) based upon the completed tax return informa-
tion. Students must apply online at www.fafsa.ed.gov. The process takes up to two weeks, so students should apply as early as possible after January 1st. Students should be sure to read all correspondence from the College and submit any requested documents to ensure that they will have a completed financial aid file. Students may apply electronically on the Internet at www.fafsa.ed.gov.

Separate applications are needed for Federal Stafford Loans, MN SELF Loans, Federal PLUS Loans, and Federal Perkins Loans. First-time borrowers of Federal Stafford Loans who are first year students are required to be in attendance at the College for thirty days before their initial semester check can be disbursed. Loan applications are available from the Financial Aid Office.

Types of Financial Aid

The following financial aid programs are available at Mesabi Range College:

Scholarships and Grants

**Federal Pell Grant** – Annual awards range from $400 to $4,731. Pell Grant checks are disbursed each semester after the drop/add period. Full time status is 12 semester credits. To be eligible, students must complete a FAFSA and meet the program eligibility requirements.

**MN State Grant Program** – Annual awards range from $100 to $4,000. MN State Grant checks are disbursed each semester after the drop/add period. Full time status is 15 semester credits. To be eligible, students must complete a FAFSA, be a Minnesota resident, and meet the program eligibility requirements. Eligibility for Minnesota State Grants is for only five academic years. This includes all periods of enrollment whether or not financial aid was received. Filing deadline for the MN State Grant is 30 days after the start of each term.

**Federal Supplemental Education Opportunity Grants (FSEOG)** – Awards range from $100.00 to $500.00. Grant checks are disbursed each semester after the drop/add period. To be eligible, students must complete a FAFSA and meet program requirements. Grants are awarded on the basis of greatest need, and are awarded until funds are exhausted. Students having complete financial aid files will receive priority consideration for FSEOG.

Work study programs

**Work Study (Federal, State, and Institutional)** – Federal and State work study provides employment for those students who have financial need and who must earn a part of their educational expenses. Employment may be during the academic year and/or during vacation periods. Checks are disbursed bi-weekly. Institutional work study is based upon the student's academic standing as well as financial need within specific time cycles. For all work study programs, students must complete a FAFSA.

Work study jobs can be both on and off campus. Work study is normally performed between classes, after classes, or could be accomplished during the evenings and over weekends. Students generally work between six and eight work study hours per week. Students may work more hours during the summer and other vacation periods.

Loans

**Federal Stafford Loan Program (Subsidized and Unsubsidized)** – Loan amounts vary depending upon the student’s year in college. First-year dependent students can borrow up to $3,500; second-year dependent students can borrow up to $4,500. Maximum interest rate is 8.25% with repayment of the loan beginning 6 months after the student leaves school or drops to less than half-time status. All first-time borrowers at Mesabi Range College must complete a loan counseling session. “Independent” students may be able to borrow additional unsubsidized funds depending upon their financial need. A separate loan application form is required in addition to the FAFSA. First-time, first-year borrowers will have their first loan check disbursed after the 30th day of attendance, all other checks will be disbursed after the drop/add period of each semester.
Federal PLUS (Parent Loan) and MN SELF Loans – Students desiring these loans should contact the Financial Aid Office. In addition to the FAFSA, separate loan applications are needed. Disbursement will be after the drop/add period of each semester.

Federal Perkins Loans – Students desiring these loans should contact the Financial Aid Office. Perkins Loans are based upon financial need and are at a 5% interest rate (2007-08). Typical loan amounts begin at $1,800 per academic year. Disbursements of loan checks are after the drop/add period of each semester. A separate loan application is required in addition to the FAFSA.

Other Financial Aid Programs

American Indian Scholarship Assistance – Various scholarships and grants are available for American Indian students. Students must complete the FAFSA as well as a separate MN Indian Scholarship application. In addition, each of the MN American Indian tribes may be able to fund students in conjunction with the MN Indian Scholarship Program. Contact the Financial Aid Office or Minority Services for details.

Workforce Investment Act (WIA) – The Workforce Center (formerly the Northeast Minnesota Office of Job Training) provides students with an opportunity to train for jobs by paying for vocational classroom training in occupational programs. These occupational programs are designed so that individuals acquire technical skills to perform a specific job. In addition to the FAFSA, students must complete a WIA application which can be obtained from a WIA campus representative or from their main office at the Workforce Center in Virginia, MN.

Rehabilitation Services (DRS) – Aid may be available for persons who are disabled or qualify by the American Disabilities Act (ADA). Funds may be obtained for books, supplies, tuition, and, in some cases, maintenance costs. Contact the nearest Minnesota Workforce Center for further details. Students must have completed a FAFSA in order to be considered by Rehabilitation Services.

MN Non-AFDC Child Care Assistance – Contact the Financial Aid Office for current information. Child care assistance is based upon the family size, family income, and the number of credits the student is taking during the semester. Students must be eligible Minnesota residents and be enrolled in a degree-seeking program for at least six or more credits. Funding is awarded on a first come, first serve basis. Check with the Financial Aid Office as to deadlines.

Conditions of Financial Aid

Federal and State regulations require that all financial aid recipients maintain “Satisfactory Academic Progress (SAP)” and that they advance steadily toward the completion of their degree or certificate.

Satisfactory Academic Progress is met by maintaining a 2.0 (C) Grade Point Average (GPA), and the completion of 67% of all credits attempted.

Students receiving financial aid who do not maintain Satisfactory Academic Progress will be placed on probation for one term. If the deficiencies are not corrected during the probationary term, the student will be placed on financial aid suspension. Students have the right to appeal for reinstatement of financial aid.

If at the end of the probationary period, the student who has been on probationary status, and has met the institution’s qualitative and quantitative standards for all courses in which he or she was enrolled during the probationary period; but has not met Mesabi Range’s cumulative standards, may be permitted to retain financial aid eligibility under a “Continued Probation” status, until such time as:

- The student has met the college’s 2.0 GPA and 67% completion standards, at which time the student’s financial aid eligibility will be reinstated, or
- The student fails to meet the college’s 2.0 GPA and 67% completion rate for the courses that the student is enrolled in during the probationary period. At such time, the student will be suspended from financial aid, or
• The college determines that it is not possible for the student to raise his or her GPA or course completion rate to meet the college’s standards before the student would reach the end of the program for which he or she is receiving financial aid. At such time, the college shall suspend the student from financial aid.

A student who has been suspended from enrollment may return to the college after an appeal has been approved or the period of suspension has passed. The student remains on probation upon return to the college. However, for the purposes of financial aid, a student who returns after a period of suspension must complete a written appeal for reinstatement of financial aid. The student must meet with an advisor and develop an Academic Plan. The Academic Plan, along with the written appeal, is submitted to the Financial Aid office. The Academic Plan will be monitored each term to ensure that the student is adhering to the plan. Courses not found on the Academic Plan are ineligible for financial aid. Should the appeal be denied by the Financial Aid Office, the student may further appeal.

Students must be enrolled and attending classes in order to receive financial aid. The college shall monitor attendance prior to the initial disbursement of funds for each term. If it is determined that a student has not been attending classes prior to the first disbursement date, those classes will be made ineligible for financial aid, and will not be included in the award calculation or disbursement. However, since the student did not drop the course within the drop/add period, the student is still responsible for all course costs.

Students who have in excess of 96 semester credits, or who already have an Associate or Bachelor Degree will have to petition to receive financial aid. Students who desire to appeal to the maximum time frame limits (96 credits) for other than a change in majors will have to provide documentation of extenuating circumstances. Those circumstances include, but are not limited to, death of a family member, illness of student or family member, college initiated changes to the curriculum, etc. In all cases, the student must meet with an advisor and develop an Academic Plan. The student will submit the written appeal along with the Academic Plan to the Financial Aid Office. Should the appeal be denied by the Financial Aid Office, the student may further appeal.

**Student Responsibilities**

Students have the responsibility to review and consider all information about a program before they enroll. Students must pay special attention to their financial aid applications, completing the FAFSA accurately and submitting the FAFSA for processing in a timely manner. Students must return all requested documents to the Financial Aid Office. Failure to do so will result in their files being incomplete and their financial aid being delayed.

**ACADEMIC POLICIES AND PROCEDURES**

**Academic Alert Reports**

Instructors prepare deficiency reports on students who are not achieving at a satisfactory academic level. These reports are submitted to the Student Services Office at specific intervals during the semester. Students are notified of their deficiency and encouraged to seek assistance from counselors or advisors.

**Academic Appeals**

Students may appeal for exceptions to college procedures by obtaining a student petition form from the Student Services Office, discussing the circumstances of the petition with an academic advisor, and following the appropriate steps for each type of appeal.

**Academic Credit**

Normally, a one-contact-hour class taught in a lecture format carries one semester hour of credit. In a laboratory format a two- to three-contact hours class carries one semester hour of credit.
Academic Forgiveness Policy

Mesabi Range Community & Technical College’s Academic Forgiveness Policy is intended to give the undergraduate student, who has been away from MRCTC at least five (5) years, an opportunity to establish a new GPA. The student must have been absent from MRCTC for a minimum of 5 consecutive years prior to the “Petition for Academic Forgiveness” in order to be eligible. Please see page 144 of this catalog for full details.

Academic Grade Appeal Policy

Instructors at Mesabi Range Community & Technical College are empowered to make final decisions on all student grades subject to MnSCU and college policies. In the event that a grade is in dispute, the student is encouraged to attempt to resolve this dispute directly and informally with the instructor. If no resolution is possible, the student may, under exceptional circumstances, initiate a formal appeal process. Forms are available in the Records Office.

The formal appeal process must be initiated before the end of the semester following the one in which the course was completed, excluding the Summer Semester. Documentation, including tests, assignments, and supporting materials for the claim may be required.

(See Student Handbook for more details on this policy.)

Academic Integrity Policy

Past, present, and prospective students have a right to expect that the College will not condone any action that compromises, undermines, or invalidates the credibility of their academic achievements.

Academic dishonesty is defined as any instance in which a student behaves in a manner that adversely affects the integrity of the academic process. Students who consciously choose to violate the standards of academic honesty to benefit themselves and/or others marginalize and devalue the honest efforts of all other students who are products of this institution. Intentional acts of academic dishonesty also damage the reputation of the college, the community, the instructors, and fellow students. Examples of such behavior include, but are not limited to, the following:

Cheating: the use, or attempted use of unauthorized materials, information, or study aids; unauthorized copying or collaboration

Plagiarizing: the use of another’s words, ideas, or product without appropriate acknowledgement

Falsifying Academic Information: the intentional misrepresentation or invention of any information, such as falsifying research, inventing or exaggerating data

Collusion: to assist another to commit an act of academic dishonesty, such as paying or bribing someone to acquire a test or assignment, to take a test or do an assignment for someone else

Other Academic Misconduct: to intentionally violate MRCTC policies, such as tampering with grades; sabotaging another student’s work, etc.

It is the policy of Mesabi Range Community & Technical College to resolutely uphold the integrity of its academic programs by actively promoting ethical behavior while sanctioning unethical conduct.

(See Student Handbook for further details on this policy.)
Academic Honors List

Students who enroll for 12 or more credits and achieve a GPA of 3.0 will be recognized on the Honors list. High Honors will be granted to students achieving a 3.5 GPA, and Highest Honors will be granted to students with a 3.75 or higher GPA.

Attendance

Students are expected to attend all scheduled classes and are responsible for all work missed during absences. All instructors have their own policies on absences and make-up work. Absences should be discussed with the instructor.

Credit Award Alternatives

Advanced Placement (AP) Program

Students whose scores on the College Board Advance Placement Examination are rated “3,” “4,” or “5” will be considered for advanced placement and/or credit. Students who wish to apply for advanced placement should have their test results sent to the Enrollment Services Office. There is no limit on the number of AP credits a student may earn.

College Level Examination Program (CLEP)

The College Level Examination Program enables students to earn college credit by examination. Anyone may take CLEP tests to demonstrate college-level competency. A student interested in taking the CLEP exam should contact a CLEP testing center. Students should contact the Student Services Office for more information.

CLEP offers two types of standardized tests. The General Examinations are given in the areas of English composition, humanities, natural sciences, social sciences, and history. A score of 500 will earn 9 college credits in each of those areas. A grade of P is recorded for these credits. The Subject Examinations, given in 47 specific subject areas, measure achievement in specific college courses and are used to grant exemption for and credit for those courses.

Students successfully completing either CLEP General Examinations and/or Subject Examinations with a score at the 50th percentile or above will receive college credit.

Course Test Out Procedure

Course test out and grading system (P/F or A, B, C, D, F) is at the discretion of departmental instructors at the College. Whenever possible, test outs will be given to groups on specific, assigned days/times.

To earn credit, the student must pay the tuition and assessed fees for the course as well as the administrative costs of the test. A student may not earn credit by examination for courses with lower numbers or at a lower skill level than one already passed. Students who fail the examination must take the course to receive credit. There will be no additional charge to take the course if it is done the same semester as the attempted test out.

A $25 non-refundable administrative fee will be charged for each test taken.

Students may only attempt to test out of a course that is being offered in the current semester. Students who wish to test out must do so during the drop/add period.

Credit or Waiver for Armed Services Training

Credit or waiver of credit will be authorized using “A Guide to the Evaluation of Educational Experiences in the Armed Services,” after evaluation by a transfer credit evaluator.

Independent Study

Students may register for one to four credits of independent study during any semester of the academic year. Students may earn a maximum of nine elective credits through this method. Independent study credits are accepted toward graduation.

Registration must be preceded by discussion with the supervising instructor. The nature of the project, the number of credits to be awarded, and the independent study plan is subject to the approval of the Academic Administrator or...
designee prior to the start of the semester during which the credits will be earned.

**International Baccalaureate (IB) Program**

Students successfully completing the IB Higher Level Examination with scores of “4,” “5,” “6,” or “7” will be considered for advanced placement and/or credit. Diploma or certificate copies should be sent to the Enrollment Services Office.

**Credit Load**

A normal course load varies in relation to a student’s ability and achievements, usually 12 to 18 credits per semester. To be a full-time student, one must take at least 12 credits of course work. Students who wish to carry a credit load in excess of 18 credits must have written approval from an academic advisor. Students may attend less than full-time. Credit load status is determined as:

- Full-time: 12 or more credits
- Three-quarter time: 9 through 11 credits
- Half-time: 6 through 8 credits
- Less than half-time: 5 credits or less.

**Faculty Office Hours**

Faculty members maintain office hours for consultation with students. Copies of faculty members’ office hours are posted on their office doors.

**Field Placements**

It is the policy of the Mesabi Range Community & Technical College to support internships, clinical practicums and training, and supervised occupation experience (SOE) as a part of the educational process for students enrolled in technical programs. Students eligible to be placed in such experiences must be making satisfactory academic progress as established by the College and must also meet the criteria established and published by each department at the College.

**Final Examinations**

Final examinations are held according to a schedule which is issued by the administration. All students must take scheduled final examinations. Any circumstances which require a special examination arrangement other than the exam specifically scheduled must be arranged by a petition to the Academic Administrator or designee prior to the tenth day before the end of the semester. **Only under extreme circumstances will students be allowed to change final exam dates.**

The scheduling of class-related examinations will normally correlate with the time allotted and assigned for the class meeting and/or occur during scheduled examination periods established by the College administration.

When an instructor deems it necessary and desirable to schedule assignments and/or examinations during other periods of time, the instructor will give the students due notice of the intent and purposes of same and make adequate and fair provisions for individuals who have scheduling conflicts which interfere with their attendance at or compliance with the same.

**Grades**

Students who complete credit courses shall be assigned grades according to the following definitions:

<table>
<thead>
<tr>
<th>Grade Achievement</th>
<th>Grade Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  Superior</td>
<td>.4</td>
</tr>
<tr>
<td>B  Above Average</td>
<td>.3</td>
</tr>
<tr>
<td>C  Average</td>
<td>.2</td>
</tr>
<tr>
<td>D  Below Average</td>
<td>.1</td>
</tr>
<tr>
<td>F  Inadequate</td>
<td>.0</td>
</tr>
<tr>
<td>P  Passing</td>
<td>Not computed</td>
</tr>
<tr>
<td>NC No Credit</td>
<td>Not computed</td>
</tr>
<tr>
<td>I  Incomplete</td>
<td>Not computed</td>
</tr>
<tr>
<td>V  Visitor or Audit</td>
<td>Not computed</td>
</tr>
<tr>
<td>W  Withdrawn From Course</td>
<td>Not computed</td>
</tr>
</tbody>
</table>
Continuation of another course or courses is necessary because grades cannot be determined until the full sequence is completed.

** No grade submitted by an instructor as of printed grade reports.

All required course work as defined by the instructor must be complete before any grade will be recorded on a student’s permanent transcript.

A student who wishes a grade of “Incomplete” must receive the instructor’s permission. An incomplete will be changed to an “F” at the end of one semester (following the semester in which the incomplete is received).

A student may register to audit a course by filling out the appropriate form in the Records Office. Auditing is allowed on a space-available basis and financial aid is not available for audited courses.

**Grade Point Averages (GPA)**

A student’s grade point average is determined by adding all grade points and dividing by the sum of all credits attempted.

Students may view their grades by going online at www.mesabirange.edu. Students will need to use their Student ID and PIN numbers to access their grades. Upon written request, grades may be mailed to students. Written requests MUST be provided to the Records Office. With the exception of PSEO students, grades are not automatically mailed to students at the end of each semester, unless a request is made (as described above).

**Pass/Fail Grading Options**

A student is allowed to exercise the Pass/Fail Option for a maximum of 12 credits. “P” grades do not enter into the computation of grade point average, but credit is given for all courses completed with a “P” grade. Most general education courses are offered with the Pass/Fail option to give students an opportunity to explore areas of study without fear of affecting their grade point average. Prerequisites must be followed as in the normal class sequence. Students who opt to take a course on a Pass/Fail option must achieve at least a grade of “C” to receive a passing grade (P) for that course. Students earning grades of “D”, “F,” or “NC” (for developmental courses), will receive the grade earned.

Students must understand that Pass/Fail courses are best taken to fulfill general education requirements. Senior colleges will not accept Pass grades in major or minor fields of study. Students may not, therefore, select the Pass/Fail option for courses within their chosen major fields or those closely related to minors. A.A.S. degree students may not select the Pass/Fail option for courses bearing technical prefixes or those which are required within their programs. Students should seek advice from the advising staff in regard to the P/F option. Students working toward an A.A. degree or those who plan to transfer to a four-year college should have no more than twenty percent (20%) of their college credits in Pass/Fail credit. The College, therefore, limits students to a total of 12 credits of P/F with not more than 5 Pass/Fail credits in any one semester.

**EXAMPLE (Calculation of GPA):**

<table>
<thead>
<tr>
<th>Course Title</th>
<th># of Credits</th>
<th>Grade Earned</th>
<th>Grade Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro to Accounting</td>
<td>3</td>
<td>C</td>
<td>2.0 x 3 credits = 6</td>
</tr>
<tr>
<td>Freshman English</td>
<td>3</td>
<td>B</td>
<td>3.0 x 3 credits = 9</td>
</tr>
<tr>
<td>Biology</td>
<td>5</td>
<td>D</td>
<td>1.0 x 5 credits = 5</td>
</tr>
<tr>
<td>Intro to Psychology</td>
<td>3</td>
<td>A</td>
<td>4.0 x 3 credits = 12</td>
</tr>
<tr>
<td>Music Appreciation</td>
<td>2</td>
<td>F</td>
<td>0.0 x 2 credits = 0</td>
</tr>
</tbody>
</table>

Total # of credits attempted = 16
Total grade points earned = 32
Total grade points earned, divided by total number of credits attempted = 32/16 = 2.0 GPA

(Grade Point Value: “A” = 4.0, “B” = 3.0, “C” = 2.0, “D” = 1.0, “F” = 0.0)
A petition obtained from the Records Office must be signed for each course taken as Pass/Fail. This petition must be completed within one week following mid-semester examinations.

Definitions/Conditions:

Completed Credits: Completed credits include A, B, C, D, P, and F. They do not include “I” (incomplete), “W” (withdraw), “V” (visitor/auditor), “NC” (no credit), or classes dropped during the first five days of the term. Completed credits may qualify for retroactive payment of financial aid.

Credits: The unit by which academic work is measured.

Cumulative Credits: Cumulative credits are the total number of credits registered for all terms of enrollment at the college, including summer terms.

Developmental Credits: Developmental credits awarded for remedial course work (below 1000 level). Students may receive financial aid for developmental credits up to a maximum of 30 semester hours, when they are enrolled in additional courses above 1000 level.

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.

Grade Point Average: Grade point average (GPA) is the quotient of 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, “P” credits count toward registered credits.

Grade Point Total: Grade point total is the sum of grade points earned as determined by multiplying the grade point value of the grade by the number of course credits.

Grade Points: A letter grade is assigned at the end of the term 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. Only the grades of A, B, C, D, and F carry grade point value.

Incompletes: The mark of “I” is a temporary grade that is assigned, at the discretion of the instructor, only in exceptional circumstances. It will be given only to students who cannot complete the work of a course on schedule because of illness or other circumstances beyond their control. An “I” grade will automatically become an “F” grade (or “NC” in the case of courses numbered below 1000) at the end of the next term (not including summer sessions) if requirements to complete course work have not been satisfactorily met. Instructors have the option of setting an earlier completion date for the student.

Registered Credits: Registered credits are the total number of credits for which a student is officially enrolled at the end of the registration period for each term.

Repeating a Course: Students who wish to repeat a course may do so. Students should discuss their intentions with an advisor and complete a course repeat form. Both the old and new grades remain on the student’s transcript, but only the new grade will be used to complete the grade point average. The new grade will be used for grade point average computation whether it is a higher or lower grade. Requests to repeat a course will be official only after being processed by the Records Office.

Financial aid may be applied to only the first retake in the case of D, F, or NC grades. Subsequent repeats will not be eligible for financial aid. Students who are repeating courses in which B or C grades were received must self-pay the costs of the course; financial aid may not be applied to those courses.

Transfer Credits: Transfer credits are credits earned at another college that are accepted by this college. Transfer credits are not included when calculating satisfactory academic progress or grade point average.

Maximum Credit Allowance For Credit Alternatives

Credits granted through IB, CLEP, and Credit by Examination may be used to complete up to
two-thirds of the minimum requirements in each liberal education distribution area for the Associate in Arts Degree. Students may earn a maximum of 24 credits through such testing. Students intending to transfer to other institutions should be aware that the receiving institution determines the acceptability of IB, CLEP, and Armed Services Training credits; these institutions may have different regulations than those of Mesabi Range Community & Technical College.

Supervised Occupational Experience (SOE)
Since job placement is a primary goal of Mesabi Range’s technical programs, consideration may be given to allowing release from classes for work directly related to a graduating student’s technical program and approved by the program director and academic dean. Complete information is available from technical program directors and academic advisors.

Prior Learning Experience
In certain technical program areas, students may request that prior learning experience be substituted for any required or elective course. Students may request credit for prior learning experience by submitting documented proof on a work history verification form. Prior learning experience will be evaluated on an individual basis due to changing technology. Contact an academic advisor on the Eveleth campus for more information.

Registration
Students may register prior to the beginning of each semester. Each student is required to have his or her program plan reviewed by a counselor or advisor prior to registration. Professional advisors are available to assist students in reviewing their academic backgrounds, interests, and goals and in making appropriate immediate and long-range plans. New students should contact Enrollment Services for admission and new student registration procedures.

Financial Aid Satisfactory Academic Progress Policy
Mesabi Range Community & Technical College requires that students make satisfactory academic progress toward a degree or certificate to remain in good standing. Additionally, federal law requires that a recipient of state or federal financial aid make satisfactory academic progress toward a degree or certificate to remain eligible for aid. The Satisfactory Progress Standards shall be the same as, or stricter than, the college’s academic standards for a student enrolled in the same educational program who is not receiving financial assistance. Students bear primary responsibility for their own academic progress and for seeking assistance when experiencing academic difficulty. However, the college does provide tutoring, testing, and other related services that may be able to assist students with improving their academic standing. To that end, the advisors and counseling staff are available to assist students in developing a course of action to improve their academic standing. Students are encouraged to keep a file of their grades and transcripts.

Requirements
Qualitative Measure: Students are expected to meet the minimum cumulative GPA levels on the chart below. Grades of A, B, C, D, and F will be included in the GPA calculation.

<table>
<thead>
<tr>
<th>Cumulative Registered Credits</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 5</td>
<td>0.00</td>
</tr>
<tr>
<td>6 +</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Post Secondary Enrollment Options courses taken at Mesabi Range Community & Technical College will be used in the calculation of cumulative Grade Point Averages.

Quantitative Measure: All students who have attempted more than five credits are required to maintain a minimum of 67% of all cumulative registered credits, including remedial non-credit courses as indicated in the chart below:
Cumulative Registered Credits

<table>
<thead>
<tr>
<th>Rate</th>
<th>Cumulative Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 5</td>
<td>0%</td>
</tr>
<tr>
<td>6 +</td>
<td>67%</td>
</tr>
</tbody>
</table>

Courses for which a student receives a letter grade of A, B, C, D, F, S and P are included in the calculation of cumulative credit completion percentage as courses successfully completed. Courses for which a student receives a letter grade of N, NC, W, and I will be treated as credits attempted but not successfully completed. Blank (Z) grades will be treated as credits attempted but not successfully completed. Audited courses (AU) are not counted. Courses taken under Post Secondary Enrollment Opportunities (PSEO) will be counted.

All attempted credits are counted, including transfer credits and consortium, whether or not financial aid was received, or the course work was successfully completed. This includes all Post Secondary Enrollment Options courses transferred in.

Maximum Time Frame or Credits: All students are expected to complete their degree/certificate within an acceptable period of time. The maximum time frame of credits for financial aid recipients is 150% of the published credit length of the program. Non-credit remedial courses, ESL, and transfer credits will count toward the maximum time frame completion. All Post Secondary Enrollment Options courses transferred in, will be counted.

Students Pursuing an Additional Major/Double Major: Students who have already completed their program and now change their major or are pursuing an additional major or have a double major will have financial aid for only those courses that relate to the completion of the additional or changed major. These students will be required to complete an Academic Plan, which will be monitored each term. Only those courses listed in the Academic Plan will be eligible for financial aid. Credits that have been transferred in from other institutions will be counted towards completion of maximum time frame.

Evaluation Period:
A student will be placed on academic suspension for failure to maintain satisfactory academic progress. Academic progress will be monitored as follows:

All students with registered credits during a semester will be evaluated at the end of the semester, including summer semester.

Any student who fails to meet minimum satisfactory academic progress requirements for one semester will be placed on probation for one semester, commencing immediately.

A student on probation who fails to meet the minimum satisfactory academic progress requirements for a consecutive semester will be placed on suspension, one year in duration, commencing immediately.

The College may immediately suspend financial aid for a student in the event of extraordinary circumstances, such as, a student who was previously suspended and whose academic performance falls below acceptable levels during a subsequent semester, a student who is registered for but does not earn any credits for two consecutive semesters, or a student who demonstrates an attendance pattern that abuses the receipt of financial aid, etc.

Notification
Students failing to meet the minimum satisfactory academic progress requirements will be notified in writing as to their status.

Appeals
A student who fails to make satisfactory academic progress and is suspended from either enrollment and/or financial aid has the right to appeal based on unusual or extenuating circumstances which lead to unavoidable absenteeism. These could include, but are not limited to: death in the family, student’s injury or illness, changes in the curriculum, etc. Generally, unless the appeal is solely for financial aid, the appeal must be submitted in writing on a form available in the Records Office of each campus. The appeal must include an explanation of the circum-
stances that affected academic progress. If requested, the appeal must also include supporting documentation beyond the written explanation (e.g., a physician’s statement, etc.). Appeals must be directed to the Committee on Appeals. The committee’s decision will be provided to the student in writing. The committee’s decision is final. For appeals that deal with Financial Aid only, the appeal is directed to the Director of Financial Aid or designee. If denied, the student may appeal to the Committee on Appeals. The committee’s decision will be final.

Appeals for financial aid beyond the maximum time frame use the same form that can be obtained from the Financial Aid Office. However, appeals for financial aid beyond the maximum time frame will be granted only in the case of documented mitigating circumstances. Among these are death in the family, illness or injury of student, family emergencies, changes in the curriculum, etc.

The student must meet with an advisor or counselor and develop an Academic Plan which indicates the course work necessary to complete the degree/certificate. The Financial Aid Office will review the Academic Plan and if found acceptable will inform the student in writing. The Academic Plan will be monitored each term to ensure that the student is adhering to the plan. Courses not found on the Academic Plan are ineligible for financial aid. Should the appeal be denied, the student may appeal to the Committee on Appeals. The decision of the committee shall be final.

Reinstatement

A student who has been suspended from enrollment may return to the College after an appeal has been approved or the period of suspension has passed. The student remains on probation upon returning to the College. However, for the purposes of financial aid, a student who returns after the period of suspension must complete a written appeal for reinstatement of financial aid and direct the appeal to the Financial Aid Director or designee. The student must meet with an advisor or counselor and develop an Academic Plan that is submitted with the Financial Aid Appeal. The form is the same one that can be obtained from the Records Office. The Academic Plan will be monitored each term to ensure that the student is adhering to the Plan. Courses not found on the Academic Plan are ineligible for financial aid. Should the Financial Aid Director deny the appeal, the student may appeal to the Committee on Appeals. The committee’s decision shall be final.

Continuation of Students on Probation Status

If at the end of the probationary period, the student who has been on probationary status, and has met the institution’s qualitative and quantitative standards for all courses in which he or she was enrolled during the probationary period, but has not met Mesabi Range Community & Technical College’s cumulative standards, may be permitted to retain his or her financial aid eligibility under a “continued probation” status, until such time as:

1. The student has met the College’s qualitative and quantitative standards, at which time the student’s financial aid eligibility may be reinstated, or

2. The student fails to meet the College’s qualitative or quantitative standards of the courses that the student is enrolled in during the probationary period. At such time the College will suspend the student from financial aid eligibility immediately upon completion of the review, or

3. The College determines that it is not possible for a student to raise his or her GPA or course completion percentage to meet the College’s qualitative or quantitative standards before the student would reach the end of the program for which he or she is receiving financial aid. The College will suspend the student from financial aid eligibility immediately upon completion of the evaluation period.
Awarding of Two Degrees/Double Majors

In some instances, students may want to complete two related technical programs or degrees (A.A., A.S., A.A.S.) to enhance their employment potential. Students who desire a double major or two degrees will not necessarily have to accumulate the total number of credits required in both programs provided they have completed all of the required courses for both degrees.

Students who desire to complete a double major or two degrees should select their electives in the first program from courses in the second program to reduce the time factor involved. Students should be aware that it is difficult to complete a double major or two degrees in the standard two-year enrollment period.

Tech Prep

To receive credit for Tech Prep classes from high schools with articulated agreements with the Eveleth campus, incoming students must present their official certificates of completion.

Time Limit For Meeting Graduation Requirements

It is the policy of Mesabi Range Community & Technical College that students may follow the catalog requirements listed at the time they enter college. Students who enroll, withdraw, and re-enter must follow the requirements in effect at the time of their re-enrollment.

TRANSFER INFORMATION

Minnesota’s public colleges and universities are working to make transfer easier. Students are urged to PLAN AHEAD, ASK QUESTIONS, and DEVELOP PROGRAM PLANS WITH AN ACADEMIC ADVISOR. Some of the services and policies that make it easier to plan progress and prevent loss of time and credits are:

• help from the transfer advisors on campus;
• transfer guides on the MnSCU Transfer website;
• written Intersystem Agreements regarding:
  – transfer of general education courses and the Associate in Arts Degree;
  – early application/admission to a university;
  – courses to take for transfer in key areas such as engineering and nursing;
  – understanding the criteria for admission to the institution/major selected;
  – the transfer appeals process on every campus.

Applying for Transfer Admission

• Application for admission is always the first step in transferring. Students desiring to transfer should fill out applications as early as possible prior to deadlines. Required application fees should be enclosed.
• Students should request that official transcripts be sent from every institution attended. Students may be required to provide a high school transcript or GED test scores.
• Most colleges do not make decisions until all required documents are in the student’s files. Students should recheck to be certain the college or university received all the necessary paperwork.
• If the intended college of transfer does not respond after one month, students should call to check on the status of their application.
• After the College notifies students that they have been accepted for admission, their credits will be evaluated for transfer. At a minimum, a written evaluation should indicate which credits do not transfer. How a transfer student’s courses specifically meet degree requirements may not be decided until orientation or the choice of major has been made. Students with questions about their evaluations should call the Office of Admissions and ask to speak with a credit evaluator. Rationale for judgments regarding specific courses should be available. Many concerns can be cleared up if students understand why decisions were made. If not satisfied, transfer students can appeal.
Preparing for Transfer

Students who are currently enrolled in a college or university should:

- confer with a campus transfer advisor about transfer plans and find out who can assist in selecting courses that will transfer.
- visit the intended transfer college and pick up a college catalog and transfer brochure.
- call the intended transfer college and find out what the admissions criteria are for the institution/major of interest. Request transfer application materials, find out what materials (e.g., portfolio, transcripts, test scores) may be required for admission, ask whether there is a deadline for all materials to be submitted, and request information about financial aid and application deadlines.
- make an appointment to talk with an advisor/counselor in the college or program of interest to the student. Ask about course transfer and admission criteria. Prepare for this meeting by reading catalog information about the specific major or area of interest.

Rights of Transfer Students

Transfer students are entitled to:

- a clear, understandable statement of an institution’s policy.
- a fair credit review and an explanation of why credits were or were not accepted.
- a copy of the formal appeals process. Usual steps are:
  - student fills out an appeals form;
  - providing supplemental information (syllabus, course description, or reading list) can help;
  - department or committee will review;
  - student receives, in writing, the outcome of the appeal. Students can appeal the decision to the Academic Administrator.
  - a review of eligibility for financial aid or scholarships takes place.

Some Facts About Transfer of Credits

- Once a student has been admitted to a college or university, all courses earning grade points shall be considered for transfer.
- The receiving college or university decides which credits meet its degree requirements. The accreditation of both the originating and the receiving institution can affect the transfer of the credits the student has earned.
- Institutions accept transfer courses to the major if they are similar to courses they offer. They look for similarity in course goals, content, and level. “Like” transfers to “like.”
- Not everything that transfers helps students graduate. Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is, “Will credits fulfill requirements of the degree or program chosen?”
- If students change career goals or majors, they might not be able to complete all degree requirements within the usual number of graduation credits.

For help with transfer questions or problems, the Transfer Specialist may be consulted.

Mesabi Range Transfer Procedures

Admission in Good Standing

Applicants are admitted to Mesabi Range Community & Technical College in good standing if they are eligible to return to the last institution(s) attended and if they have a 2.0 overall grade point average based on a 4.0 scale for all courses taken at all post-secondary institutions attended.

The grade point average (GPA) from the transfer institution is not used in computing the student’s GPA at Mesabi Range.

Transfer students may be given provisional admission until the College receives all transcripts. Failure to supply the necessary transcripts may lead to suspension from the College.
Transfer of Credits

Transcripts will be evaluated to determine credits that are acceptable to be applied to degree or certificate programs. Lower division credits earned at a college or university accredited by a regional accrediting association may be accepted as equivalent courses or as electives as determined by the college’s credit evaluator. Students may appeal the transfer credit evaluation by filing a petition with the Academic Administrator or designee.

All college courses in which a student has received a grade of A, B, C, or D, shall be considered for transfer evaluation. P grades shall be accepted as earned credit. If the student’s cumulative GPA at the originating institution is less than 2.0; no “D” grades will be accepted in transfer from that school. Students retain the right to appeal the acceptance of credits.

Transfer of Technical Credits

Mesabi Range may accept, for full credit, college-parallel general education courses offered by Minnesota Technical Colleges with regional accreditation.

Mesabi Range’s Virginia Campus shall accept for transfer as electives a maximum of 16 semester credits of college level occupational or professional courses offered by Minnesota Technical Colleges with regional accreditation.

Mesabi Range shall accept for transfer occupational/professional credits from technical colleges for those courses that are judged to be comparable or equivalent to courses offered at Mesabi Range Community & Technical College.

Regional accreditation for this policy is defined as the accreditation conferred by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools and by parallel accreditation agencies in other regional areas of the United States.
STUDENT ACTIVITIES

Student activities at Mesabi Range Community & Technical College are planned to provide a social, cultural, and physical complement to the formal academic aspect of the College. A variety of intramural and intercollegiate athletics, speakers, concerts, social gatherings, and special interest clubs and organizations are available to all students.

Athletics (Intercollegiate)

Mesabi Range’s Norsemen and Norsewomen compete in a variety of intercollegiate sports. Men’s activities include football, basketball, and baseball. Women’s activities include volleyball, basketball, and softball. Mesabi Range’s athletic teams are members of the Minnesota Community College Athletic Association, Minnesota Community College Women’s Athletic Association and Region XIII of the National Junior College Athletic Association (NJCAA). The Athletic Department encourages students to try out for the teams.

Athletics (Intramurals)

An active intramural competition program is offered at Mesabi Range. Activities include basketball, volleyball, flag football, hockey, and more. Watch for informational posters and sign-up sheets.

Clubs and Organizations

Student activities are an important part of college life. All students are encouraged to participate in student government and organized clubs and organizations. Clubs and organizations at Mesabi Range Community & Technical College are open to all students. Existing clubs include the Phi Theta Kappa/Honor Society, Human Services, Dance Line, Instrumentation Society of America, Business Professionals of America, Graphic Arts, Multicultural Awareness, Millwright, Nursing, Mii Gii Zii Sug (Indian Student Club), International Club, and more.

Fitness Center

Mesabi Range has a well-equipped fitness center designed to fit the needs of a wide range of users. Many pieces of equipment are provided for increasing aerobic fitness. Weight training machines and free weights are also available. The Center is staffed with student monitors trained in the safe use of the equipment.

Music

Mesabi Range’s vocal and instrumental music offerings invite students and community members to participate in activities including Jazz/Swing Choir and the College/Community Band, Choir and Orchestra. Individual vocal and instrumental lessons are available through college credit offerings.

Special Events

Mesabi Range has an active Student Life Program which provides a variety of social and cultural opportunities to students. Speakers and performers, homecoming activities, dances, field trips and other special events are included in this program.

Student Life Committee

Mesabi Range’s Student Life Committee exists to provide recommendations regarding student life, activities, programs and budgets. Representatives are nominated by faculty and staff to represent the student body.

Student Senate

Mesabi Range Community & Technical College has an officially recognized Student Senate, which serves as the official representative body of the students. The campus’ Student Senate consists of elected officers and representatives. The Mesabi Range Campus student governments meet together with the College administration to forward concerns and generate input into the College’s decision-making process. Student leaders have the opportunity to participate in lobbying efforts with MnSCU’s Board of Trustees.
Minnesota State Legislature, and other agencies affecting higher education.

Minnesota State Colleges and Universities have adopted a policy which gives students, through their student government, the right to present their views and make written recommendations in decisions that affect them. At Mesabi Range, the Student Senate is the governing body for the students.
STUDENT RIGHTS & RESPONSIBILITIES

Mesabi Range expects its students to respect the rights and property of the College and its students and to know and observe federal, state, and local laws. Students violating any of the above can expect to be dealt with by campus officials and/or civil authorities. Conversely, students who feel that they have been dealt with unfairly are provided with a process whereby their complaints or grievances can be heard.

A student handbook, which further defines academic and student life policies, is given to each student.

Code of Conduct Policy

Mesabi Range Community & Technical College’s Student Code of Conduct serves two purposes: the first purpose is to serve as a guide for student behavior; the second purpose is to outline the procedures to be followed, both by students and College officials, should violation of the Code occur. Students are responsible to know of and abide by all the rules and regulations of Mesabi Range Community & Technical College.

In the eyes of the College, a student’s conduct, while on campus or while participating in an off-campus, college-sponsored activity, is guided by the rules, regulations, and policies of the College, the authority for which is granted by the Minnesota State Colleges and Universities (MnSCU) Board.

Violations of these rules and regulations will result in disciplinary action. Violations will include, but not be limited to, the following:

• Intentionally, recklessly, or negligently placing any person under mental duress or causing any person to be in fear of physical danger through verbal abuse, harassment (including repeated phone calls), sexual harassment, hazing, intimidation, threats or other conduct which threatens or endangers that person’s emotional, mental or physical well-being.

• Criminal sexual behavior including, but not limited to, the implied use or threatened use of force to engage in any sexual activity against a person’s will and/or engaging in such behavior with a person who is unconscious, substantially mentally impaired (including intoxicated); intentionally touching another person’s genitals, buttocks, or breasts without the person’s consent; indecent exposure; voyeurism.

• Use or possession of weapons, unless expressly authorized by the College. “Weapon” is broadly defined to include, but is not limited to, all firearms (including BB guns), dangerous knives, explosives, explosive fuels, dangerous chemicals, billy clubs, and fireworks.

• The use, possession, distribution, or being in the presence of any controlled substance or drugs and/or drug paraphernalia.

• Use, possession, distribution, or being in the presence of alcohol except as expressly permitted by college policy.

As an institution dedicated to teaching and learning, Mesabi Range Community & Technical College has a vested interest in maintaining an environment in which students are free to pursue their academic interests and responsibilities. Conduct that unreasonably restricts such freedoms and interferes with the College’s mission of promoting student learning is subject to regulations and/or sanction by the College. The creation of such an environment is premised on the assumption that students have both rights and responsibilities. Therefore, a major function of the College is to guarantee student rights, yet to demand student responsibility.

In the event of expulsion or suspension for 10 or more days, the student may request a hearing which will be conducted pursuant to Minnesota Stat. 15.051 Subd. 3.
A complete copy of the Code of Conduct including procedures for enforcing the Code, possible sanctions, and appeal guidelines may be obtained from the Student Services Office.

Confidentiality of Student Records Policy

Students have the right to access any and all information kept on them in the Admissions, Records, and Financial Aid Offices.

Mesabi Range will release directory information (address, phone number, dates of attendance, major, degrees and awards received, and most recent high school attended) upon request unless students specifically provide written notification to the Records Office that they do not want this information released. Student records of personal, private or confidential information are maintained by and available to authorized staff members. This policy may vary for students under the age of eighteen.

Additionally, authorized state and federal entities may obtain access to such records to conduct educational studies or other business authorized by law. Such agencies include, but are not limited to: MN Higher Education Board, MN Legislative Auditor, U.S. Department of Education, and the U.S. Veterans Administration. Anyone else wishing access to the confidential items in a student’s file must receive permission in writing from the student.

A complete copy of Mesabi Range Community & Technical College’s policy on Confidentiality of Student Records may be obtained in the Student Services Office.

Crime Awareness and Campus Security Policy

Mesabi Range Community & Technical College is committed to providing its students and staff with a safe and secure educational and working environment and to providing education and information to prevent, handle, and report crimes.

All students and staff are provided a written report of the Crime Awareness and Campus Security Policy prior to the beginning of the academic year. This report contains a three-year history of campus crime statistics, information on crime prevention and personal safety, reporting procedures and resources for crime victims. Students and staff are expected to report any criminal activity or other emergencies occurring on campus to the Student Services Office. It is the policy of college administration to engage local law enforcement agencies as appropriate.

A complete copy of Mesabi Range Community & Technical College’s policy on Crime Awareness and Campus Security may be obtained in the Student Services Office.

Drug and Alcohol-Free Campus Policy

It is Mesabi Range Community & Technical College and Minnesota State College and University policy that the possession, use, sale or distribution of alcoholic beverages and 3.2% malt liquor at institutions and institution-sponsored events on or off campus is prohibited. Alcohol and/or illegal drugs are not permitted on the Mesabi Range Community & Technical College Campus grounds except for instructional purposes and other permitted uses set out in the full MnSCU Alcohol and Drug Policy. The complete policy is printed in the Student Handbook.

When students misuse and/or abuse alcohol, academic performance, health, personal relationships and safety suffer. Mesabi Range Community & Technical College is committed to a standard of student conduct that prohibits the unlawful possession, use, being in the presence of, or distribution of alcohol or other illegal drugs. The College will impose administrative and legal sanctions on those who violate this policy as outlined in the Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226) and Minnesota Statutes 152.

A complete copy of Mesabi Range Community & Technical College’s policy on a Drug and Alcohol Free Campus may be obtained in the Student Services Office.

Non-Discrimination Policy

Minnesota State Colleges and Universities are committed to a policy of nondiscrimination in
employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in, programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Harassment of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or work environment and is prohibited. Sexual violence has no place in a learning or work environment. Further, the Minnesota State Colleges and Universities shall work to eliminate violence in all its forms. Physical contact by designated system, college, and university staff members may be appropriate if necessary to avoid physical harm to persons or property.

Sexual Harassment and Sexual Violence Policy

Sexual harassment in any context is reprehensible and is a matter of particular concern to an academic community in which students, faculty, and staff must rely on strong bonds of intellectual trust and dependence.

Mesabi Range Community & Technical College has a legal and ethical responsibility to enforce policies to ensure that all students can study in an environment free of sexual harassment, sexual violence, or harassment based on sexual orientation. Sexual harassment is a form of sexual discrimination, which is prohibited by state and federal law.

MRCTC is committed to maintaining a working and learning environment in which students and staff can develop intellectually, professionally, personally, and socially. Such an environment must be free of intimidation, fear, coercion, and reprisal. Sexual harassment may cause others unjustifiable offense, anxiety, and injury. Sexual harassment by College staff and students is prohibited. Sexual harassment that occurs on the College campuses violates Mesabi and MnSCU policy. Sexual harassment may also constitute violations of criminal and civil laws of the State of Minnesota and the United States.

Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, sexually motivated physical conduct, and other verbal or physical conduct of a sexual nature when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment or education, evaluation of a student’s academic performance, or term or condition of participation in student activities or in activities sanctioned by the College; or

2. submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions or other decisions about participation in student activities or other events or activities sanctioned by the College; or

3. such conduct has the purpose or effect of threatening an individual’s work or academic performance; or creating an intimidating, hostile, or offensive work or educational environment.

Harassment, whether intentional or unintentional, has the effect of undermining the quality of the educational environment. Whether a poorly considered sexual joke or overt demand for sexual favors, harassment may interfere with the quality of an individual’s performance and may create an intimidating, hostile or offensive environment. Mesabi Range Community & Technical College has a complaint procedure in force to deal with reports of harassment. Mesabi Range Community & Technical College encourages any person who feels he or she has been or is being subject-ed to discrimination/harassment to report the incident to a Mesabi Range Community & Technical College staff or faculty member. A designated officer may then be asked to conduct an investigation.

A complete copy of Mesabi Range Community & Technical College’s policy on Non-discrimination in Employment and Education Opportunity may be obtained in the Student Services Office.
Student Travel Policy

Mesabi Range Community & Technical College’s Student Travel Policy governs all travel that involves enrolled students as well as individuals who participate in College-sponsored travel. Each student going off-campus for any class or activity (with or without an advisor) must complete and sign an Activity Participation Form acknowledging that effective from the time they leave campus until they return, they understand and agree that:

- The MRCTC policies on alcohol, drugs, tobacco, harassment/violence are in effect.
- The Student Code of Conduct is in effect.
- Only MRCTC students/employees are to ride in college vehicles.
- Only the Advisor* or a student employed by the College can drive a college vehicle. When this is not possible, the Advisor will request a waiver from the Director of Finance.
- Students who violate policies may be sent home at their own expense.
- Alleged violations of MRCTC and MnSCU policies will be addressed once the student is back on campus.

*An Advisor is any College employee including coaches, faculty and staff, or designee appointed by the College Administration to accompany students.

The complete Student Travel Policy may be obtained in the Administration Office.
GRADUATION REQUIREMENTS FOR DEGREES

Mesabi Range Community & Technical College awards the Associate in Arts Degree, the Associate in Science Degree, and the Associate in Applied Science Degree.

In addition to completing the specific requirements of each degree, all students seeking degrees from Mesabi Range Community & Technical College must:

1. Successfully complete a minimum of 60-72 credits from courses numbered 1000 or above.
2. Complete the required number of courses from the Minnesota Transfer Curriculum.
3. Have a minimum Grade Point Average of 2.0.
4. Complete a minimum of 20 credits at Mesabi Range Community & Technical College in courses numbered 1000 or above. The residency requirement shall be reduced to 11 credits for students transferring at least 9 credits from another MnSCU institution.
5. File an application for graduation in the Records Office by the end of the semester preceding graduation.

**Associate in Arts Degree**

The A.A. Degree is designed for students who plan to transfer to senior institutions. By completing this degree, students will meet the standards required by the Minnesota Transfer Curriculum, thereby fulfilling the lower division general education requirements at all state universities in Minnesota, at all colleges within the University of Minnesota, and at many of the private four-year colleges and universities.

The Associate in Arts Degree requires:

a. The successful completion of a minimum of 64 credits from courses numbered 1000 or above, to include:
   1. a minimum of two 1-credit Physical Education activities courses,
   2. one Health course (minimum of 2 credits).

b. A minimum of 40 credits of liberal arts and sciences selected from the Minnesota Transfer Curriculum.

c. Sufficient elective credits to fulfill the required 64 credits.

**Associate in Science Degree**

The A.S. Degree may be awarded after the successful completion of a program in a designated field or area which transfers to a baccalaureate major in a related scientific, technical, or non-liberal arts professional field. The program must be designed for transfer to a baccalaureate major in a related scientific or technical field, or may be designed for employment.

The A.S. Degree must include the following:

a. Successful completion of a minimum of 60-64 credits from courses numbered 1000 or above.

b. A minimum of 30 semester credits in general education.

c. The general education credits must be selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.

d. The balance of the credits shall be within the pre-professional or technical area.

**Associate in Applied Science Degree**

The A.A.S. Degree is awarded to students who complete the requirements in approved occupational programs and technical course components.

This degree is designed for students who plan to seek employment after completing their specific career programs. The Associate in Applied Science Degree requires the following:

a. Successful completion of 60-72 semester credits from courses numbered 1000 or above (see specific program requirements).

b. A minimum of 25 percent of the credits required for an A.A.S. Degree must be general education credits.
c. General education credits must be from at least three of the ten goal areas of the Minnesota Transfer Curriculum.

d. The balance of the credits shall be in the program-related occupational or technical area.

GRADUATION REQUIREMENTS FOR CERTIFICATES AND DIPLOMAS

1. Successful completion of the program credit requirements from courses numbered 1000 or above.
2. A minimum Grade Point Average of 2.0.
3. Meet the residency requirement of a minimum of 11 credits or 1/3 of the program graduation requirements.
4. Obtain the Advisor’s signature.

Diplomas

Diplomas are not designed for transfer. The Diploma program is designed to provide students with either entry-level employment skills or upgraded employment skills. The Diploma program requires the following:

1. Successful completion of 30-72 college-level credits.
2. Eight credits of general education coursework.

Certificates

The Occupational Certificate is not designed for transfer. It is designed to provide students with entry-level employment skills. Advanced Technical Certificates are designed to enhance or raise a student’s technical skills. The minimum standards shall include graduation from an appropriate diploma or degree program or an appropriate term of related employment. The Academic Certificate is designed to certify a student’s knowledge and/or professional skills in a specific area of knowledge or practice. The Certificate programs require the following:

1. Successful completion of 9-30 college-level credits.
2. Completion of requirements for one of the certificate programs.
3. Four credits of general education coursework.
To be eligible for graduation with an A.A. Degree you must satisfy the following requirements:

- Must complete 64 credits with a cumulative GPA of 2.0 for all courses completed.
- Within these 64 credits, must complete the 40 credits of the Minnesota Transfer Curriculum (MnTC) and additional graduation requirements listed below.
- No courses numbered below 1000 may be used to complete degree.
- Must complete PSYC 1415 Freshman Year Experience course the first semester of attendance.
- Complete a minimum of 20 credits at Mesabi Range in courses numbered 1000 or above. The residency requirement shall be reduced to 11 credits for students transferring at least 9 credits from another Minnesota community college.
- A course can be used in up to 2 goal areas (cross-listed) of the Minnesota Transfer Curriculum (MnTC); however, the credits for any course can count only once toward the total degree credits.

**MINNESOTA TRANSFER CURRICULUM**

**GOAL 1: Communication**

➢ Must complete the following courses for a minimum of 10 credits:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1512</td>
<td>College Writing II</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1532</td>
<td>Technical Writing</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>SPCH 1550</td>
<td>Introduction to Communication</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>SPCH 1555</td>
<td>Public Speaking</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Must have 10 credits. Total _____

**GOAL 2: Critical Thinking**

➢ Must complete all 40 credits of the MnTC to satisfy this goal.

**GOAL 3: Natural Sciences**

➢ Must complete a minimum of seven credits including one Life Science course and one Physical Science course (one must be a lab science).

**Life Science (choose one)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1515</td>
<td>Biology of Women</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1535</td>
<td>Intro to Microbiology</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1536</td>
<td>Contemporary Issues in Biology</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1545</td>
<td>Human Biology</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1546</td>
<td>Environmental Science</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

**Physical Science (choose one)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1511</td>
<td>Fundamentals of Chemistry</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1522</td>
<td>General Chemistry I</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1523</td>
<td>General Chemistry II</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 1555</td>
<td>Physical Geography</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1557</td>
<td>Physical Geology</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1551</td>
<td>Introductory Physics</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1561</td>
<td>College Physics I</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1562</td>
<td>College Physics II</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1567</td>
<td>Astronomy</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Must have 7 credits. Total _____
GOAL 4: Math/Logical Reasoning

Must complete a minimum of 3 credits from the following courses:

MATH 1511 (3) ___ Foundations of Mathematics I
MATH 1521 (4) ___ College Algebra
MATH 1545 (3) ___ Finite Mathematics
MATH 1556 (4) ___ Survey of Calculus

MATH 1561 (5) ___ Calculus I
MATH 1562 (5) ___ Calculus II
STAT 2551 (4) ___ Statistics I

Must have 3 credits. Total ____

GOAL 5: History/Social and Behavioral Science

Must complete a minimum of 9 credits with courses from at least 3 areas:

Anthropology
ANTH 1515 (3) ___ Introduction to Indian Studies [7]
ANTH 1525 (3) ___ Introduction to Cultural Anthropology [8]
ANTH 1535 (3) ___ Human Origins [10]
ANTH 2555 (3) ___ Introduction to Archaeology [10]

Economics
ECON 1555 (3) ___ Survey of Economics [8]
ECON 1556 (3) ___ Principles of Economics - Micro [8]
ECON 1557 (3) ___ Principles of Economics – Macro [8]

Geography
GEOG 1556 (3) ___ Human Geography [8]
GEOG 1557 (3) ___ Conservation of Natural Resources [10]
GEOG 1558 (3) ___ World Regional Geography [7]

History
HIST 1555 (4) ___ History of Western Civilization: Paleolithic to 1500 [8]
HIST 1556 (4) ___ History of Western Civilization: 1500 to Present [8]
HIST 1565 (4) ___ American History: To 1877 [7]
HIST 1566 (4) ___ American History: 1877 to Present [7]
HIST 1567 (3) ___ Native American History [7]

Journalism
Jour 1555 (3) ___ Intro to Mass Communications [9]

Multicultural Studies
SPCH 1585 (3) ___ Intercultural Communications [8]
MCS 1555 (1-3) ___ Educational Travel [8]
MCS 2555 (3) ___ Culture Through Film [7]

Political Science
POLS 1556 (3) ___ American Government [9]
POLS 1557 (3) ___ State and Local Government [9]
POLS 1559 (3) ___ International Relations [8]

Psychology
PSYC 1555 (3) ___ Psychology of Men [7]
PSYC 2551 (4) ___ General Psychology
PSYC 2556 (4) ___ Industrial/Organizational Psychology [7]
PSYC 2558 (3) ___ Abnormal Psychology [7]
PSYC 2567 (4) ___ Lifespan Development [7]

Sociology
SOC 1452 (3) ___ Crime and Delinquency
SOC 1551 (3) ___ Introduction to Criminal Justice [9]
SOC 1555 (3) ___ Introduction to Sociology [7]
SOC 1556 (3) ___ Intro to Community Organiz. & Develop [9]
SOC 1557 (3) ___ Courtship, Marriage, & Family [7]
SOC 1558 (3) ___ Human Relations [7]
SOC 1559 (3) ___ Human Sexuality [7]
SOC 1565 (3) ___ Social Problems [7]

Must have 9 Credits (3 areas). Total ____
GOAL 6: Humanities/Fine Arts

- Must complete a minimum of 9 credits with 1 course from each of these 3 areas:

<table>
<thead>
<tr>
<th>History, Appreciation or Theory</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1521 (3) __Art History: Prehistoric to Pre-Renaissance</td>
<td>MUSC 1565 (3) __History of Rock &amp; Roll</td>
<td></td>
</tr>
<tr>
<td>ART 1522 (3) __Art History: Early Renaissance-Modern</td>
<td>PHIL 1551 (3) __Introduction to Ethics [9]</td>
<td></td>
</tr>
<tr>
<td>ART 1541 (3) __Introduction to Art</td>
<td>PHIL 1556 (3) __World Religions [8]</td>
<td></td>
</tr>
<tr>
<td>ART 1556 (3) __North American Indian Art [7]</td>
<td>PHIL 1565 (3) __American Indian Philosophy [10]</td>
<td></td>
</tr>
<tr>
<td>MUSC 1525 (3) __World Music [8]</td>
<td>PHIL 1575 (3) __Introduction to Philosophy [9]</td>
<td></td>
</tr>
<tr>
<td>MUSC 1559 (3) __Introduction to Music [8]</td>
<td>THTR 1555 (3) __Introduction to Theatre</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Literature</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1559 (3) __Art of the Film</td>
<td>ENGL 2537 (3) __American Literature to 1865 [7]</td>
<td></td>
</tr>
<tr>
<td>ENGL 1575 (3) __Introduction to Literature</td>
<td>ENGL 2538 (3) __American Literature from 1865 [7]</td>
<td></td>
</tr>
<tr>
<td>ENGL 1576 (3) __Literature of Science Fiction</td>
<td>ENGL 2546 (3) __North American Nature Writers [10]</td>
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<tr>
<td>ENGL 1579 (3) __World Literature [8]</td>
<td>ENGL 2547 (3) __The Bible as Literature [8]</td>
<td></td>
</tr>
<tr>
<td>ENGL 2515 (3) __Native American Literature [10]</td>
<td>ENGL 2577 (3) __World Mythology [8]</td>
<td></td>
</tr>
<tr>
<td>ENGL 2535 (4) __Survey of British Lit. to 18th Century</td>
<td>ENGL 2578 (3) __Literature by Women [7]</td>
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</tr>
<tr>
<td>ENGL 2536 (4) __Survey of British Lit. 18th – 20th Century</td>
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<table>
<thead>
<tr>
<th>Creative Process/Interpretive Performance</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>ART 1531 (3) __Drawing I</td>
<td>ART 1566 (3) __Digital Photography</td>
<td></td>
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<tr>
<td>ART 1532 (3) __Drawing II</td>
<td>ART 2535 (3) __Painting - Watercolor</td>
<td></td>
</tr>
<tr>
<td>ART 1545 (3) __Ceramics</td>
<td>ENGL 2545 (3) __Creative Writing</td>
<td></td>
</tr>
<tr>
<td>ART 1551 (3) __Painting - Oil</td>
<td>SPCH 2565 (3) __Oral Interpretation</td>
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</tr>
<tr>
<td>ART 1552 (3) __Painting II</td>
<td>THTR 1565 (3) __Beginning Acting</td>
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<tr>
<td>ART 1565 (3) __Basic Photography</td>
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</tbody>
</table>

Must have 9 Credits (3 areas). Total ____

GOAL 7: Human Diversity

- To complete this goal, choose a cross-listed course or complete 1 of the following courses for a minimum of 3 credits:

<table>
<thead>
<tr>
<th>Human Diversity</th>
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<tbody>
<tr>
<td>ENGL 2578 (3) __Literature by Women [6]</td>
<td>PSYC 2558 (3) __Abnormal Psychology [5]</td>
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<tr>
<td>ENGL 2537 (3) __American Literature to 1865 [6]</td>
<td>PSYC 2567 (4) __Lifespan Development [5]</td>
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<tr>
<td>ENGL 2538 (3) __American Literature from 1865 [6]</td>
<td>SOC 1555 (3) __Introduction to Sociology [5]</td>
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<tr>
<td>GEOG 1558 (3) __World Regional Geography [5]</td>
<td>SOC 1557 (3) __Courtship, Marriage, &amp; Family [5]</td>
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<tr>
<td>HIST 1564 (4) __American History; To 1877 [5]</td>
<td>SOC 1558 (3) __Human Relations [5]</td>
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</tr>
<tr>
<td>MCS 1556 (3) __Culture through Film [5]</td>
<td>SPCH 1586 (3) __Leadership &amp; Group Communication [9]</td>
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</tbody>
</table>

Must have a cross-listed course or a minimum of 3 Credits. Total ____
### GOAL 8: Global Perspective

- To complete this goal, choose a cross-listed course or complete 1 of the following courses for a minimum of 3 credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1525</td>
<td>Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>ECON 1555</td>
<td>Survey of Economics</td>
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<tr>
<td>ECON 1557</td>
<td>Principles of Economics – Macro</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>ENGL 1577</td>
<td>World Mythology</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>ENGL 1579</td>
<td>World Literature</td>
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<tr>
<td>ENGL 2547</td>
<td>The Bible as Literature</td>
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<td>[6]</td>
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<tr>
<td>FREN 2463</td>
<td>French III</td>
<td>4</td>
<td>[5]</td>
</tr>
<tr>
<td>FREN 2464</td>
<td>French IV</td>
<td>4</td>
<td>[5]</td>
</tr>
<tr>
<td>GEOG 1556</td>
<td>Human Geography</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>HIST 1555</td>
<td>History of Western Civ: Paleolithic to 1500</td>
<td>4</td>
<td>[5]</td>
</tr>
<tr>
<td>HIST 1556</td>
<td>History of Western Civ: 1500 to Present</td>
<td>4</td>
<td>[5]</td>
</tr>
<tr>
<td>MUSC 1525</td>
<td>World Music</td>
<td>3</td>
<td>[6]</td>
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<tr>
<td>MUSC 1559</td>
<td>Introduction to Music</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>MUSC 1559</td>
<td>World Religions</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>PHIL 1575</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>SPCH 1585</td>
<td>Intercultural Communications</td>
<td>3</td>
<td>[5]</td>
</tr>
</tbody>
</table>

**Must have a cross-listed course or a minimum of 3 Credits. Total _____**

### GOAL 9: Ethical & Civic Responsibility

- To complete this goal, choose a cross-listed course or complete 1 of the following courses for a minimum of 3 credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
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<tbody>
<tr>
<td>HIST 1567</td>
<td>Native American History</td>
<td>3</td>
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<tr>
<td>JOUR 1555</td>
<td>Intro to Mass Communication</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>MCS 2555</td>
<td>The Holocaust</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>PHIL 1575</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>POLS 1556</td>
<td>American Government</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>POLS 1557</td>
<td>State and Local Government</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>SOC 1551</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
<td>[5][6]</td>
</tr>
<tr>
<td>SOC 1556</td>
<td>Intro to Community Organizing &amp; Develop</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>SPCH 1586</td>
<td>Leadership &amp; Group Communication</td>
<td>3</td>
<td>[7]</td>
</tr>
</tbody>
</table>

**Must have a cross-listed course or a minimum of 3 Credits. Total ____**

### GOAL 10: People & the Environment

- To complete this goal, choose a cross-listed course or complete 1 of the following courses for a minimum of 3 credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Goal Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1535</td>
<td>Human Origins</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>ANTH 2555</td>
<td>Introduction to Archaeology</td>
<td>3</td>
<td>[5]</td>
</tr>
<tr>
<td>BIOL 1536</td>
<td>Contemporary Issues in Biology</td>
<td>4</td>
<td>[3]</td>
</tr>
<tr>
<td>BIOL 1546</td>
<td>Environmental Science</td>
<td>4</td>
<td>[3]</td>
</tr>
<tr>
<td>ENGL 2515</td>
<td>Native American Literature</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>GEOG 1555</td>
<td>Physical Geography</td>
<td>3</td>
<td>[3]</td>
</tr>
<tr>
<td>GEOG 1557</td>
<td>Conservation of Natural Resources</td>
<td>3</td>
<td>[3]</td>
</tr>
<tr>
<td>GEOL 1557</td>
<td>Physical Geology</td>
<td>4</td>
<td>[3]</td>
</tr>
<tr>
<td>PHIL 1565</td>
<td>American Indian Philosophy</td>
<td>3</td>
<td>[6]</td>
</tr>
<tr>
<td>PHIL 1585</td>
<td>Environmental Ethics</td>
<td>3</td>
<td>[6]</td>
</tr>
</tbody>
</table>

**Must have a cross-listed course or a minimum of 3 Credits. Total ____**

**Must have a total of 40 credits from all goal areas: Total MnTC Credits _____**

**NOTE:** A course can be used in up to 2 goal areas (cross-listed) of the Minnesota Transfer Curriculum (MnTC); however, the credits for any course can count only once toward the total degree credits. The 2nd goal area is indicated in parentheses after the course name.
ADDITIONAL A.A. DEGREE GRADUATION REQUIREMENTS

Freshman Year Experience
PSYC 1415 (1) ____ Freshman Year Experience

Must have 1 credit. Total ____

Physical Education
➢ Must complete at least 2 one-credit physical education activity courses:

Must have 2 Credits. Total ____

Health
➢ Must complete a minimum of 1 course for at least 2 credits:

HLTH 1455 (3) ___ Personal and Community Health
HLTH 1459 (3) ___ Wellness
HLTH 1465 (2) ___ Drug Use and Abuse
HLTH 2459 (3) ___ Introduction to Nutrition

Must have a minimum of 2 Credits. Total ____

Electives:
Please list electives: e.g.,

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Number</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI</td>
<td>1455</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Credits. Total ____

Total Additional Requirements. Total Credits ____

DEGREE SUMMARY

Total Credits from Minnesota Transfer Curriculum ____
Total Credits from Additional Requirements ____
Total Credits from other Elective Classes and Major Requirements ____

**Must have 64 Credits Total for A.A. Degree. Total Credits ____

NOTE: Students are reminded that two-years of a single high school foreign language or one-year of a college foreign language is an admissions requirement at many four-year colleges and universities. Please check with your transfer institution for admissions/graduation requirements.
Students thinking about a career that requires four or more years of schooling should plan course selection with transfer in mind. The university parallel (transfer) curricula at Mesabi Range are designed for lower-division and pre-professional preparation for students who intend to transfer to a four-year college or university. Depending on a student’s intended major, the goal in a transfer curriculum should generally be completion at Mesabi Range of either an Associate in Arts (A.A.) Degree or an Associate in Science (A.S.) Degree. The programs consist of typical lower division requirements for a variety of major fields. Since lower division course requirements vary from one college to another, students must consult their counselors or advisors and the catalogs of the colleges or universities to which they plan to transfer.

All four-year public colleges in Minnesota accept the Minnesota Transfer Curriculum Associate in Arts Degree as complete fulfillment of their lower division general education distribution requirements. Each baccalaureate program has its own requirements. The classes listed in this section are a general guide to help you start planning. Check with your counselor or advisor for more information and specific requirements.

CURRICULAR OFFERINGS
TRANSFER MAJORS

The transfer curricula at Mesabi Range Community & Technical College are designed to offer lower-division and pre-professional preparation for students who intend to transfer to a four-year college or university. Students who know they will transfer should plan their course selections with this goal in mind; once the transfer institution has been chosen, courses should be selected to meet the major and graduation requirements of that college. Depending on their intended majors at transfer institutions, the goals of students in a transfer curriculum should generally be completion of an Associate in Arts Degree at Mesabi Range College. Listed below are some of the four-year degree and pre-professional programs that students may begin at Mesabi Range College:

- Accounting
- Agriculture
- American Indian Studies
- Anthropology
- Pre-Architecture
- Art
- Astrophysics
- Biology
- Biology (A.S. Degree)
- Business
- Business (A.S. Degree)
- Chemistry
- Chiropractic
- Communication
- Computer Science
- Criminology/Criminal Justice
Pre-Dental Hygiene
Pre-Dentistry
Economics
Education
(Early Childhood, Elementary and Secondary)
  Art Education
  Communication Arts/Literature
  Pre-Communication Disorders
  Early Childhood Studies/Special Education
Earth and Space Science Education
  Elementary Education
  Exercise Science Education
Life Science Education
  Mathematics Education
  Music Education
Physical Education
  Chemistry Concentration
  Physics Concentration
  Earth and Space Science Education
  Early Childhood Studies/Special Education
  Elementary Education
  Exercise Science Education
Social Studies Education
Pre-Engineering
  Aerospace Engineering
  Biomedical Engineering
  Bio/Agricultural Engineering
  Chemical Engineering
  Civil Engineering
  Computer Engineering
  Electrical Engineering
  Geological Engineering
  Materials Science Engineering
  Mechanical Engineering

English
Environmental Science
Exercise & Sports Science
Forestry/Natural Resources
Geography
Geology
Geophysics
History
Human Services Generalist
Industrial Technology/Industrial Arts
International Relations/Studies
Pre-Law
Liberal Arts/Humanities
Mathematics
Pre-Medicine
Medical Technology
Pre-Mortuary Science
Music
Nursing (4-year degree)
Nutrition/Dietetics
Pre-Occupational Therapy
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Physics
Political Science
Psychology
Social Work
Sociology
Pre-Veterinary Medicine
Career programs are designed to prepare students for immediate employment in a career by providing technical skills that can be acquired in one-year Certificate, two-year Diploma or two-year Associate in Applied Science programs. Associate in Applied Science programs include a comprehensive core of general education courses which provide the foundation for a long-term professional career. Students who graduate may also transfer to continue their education and receive an advanced four-year degree.

Our campuses feature up-to-date equipment, as well as instructors who make it a point to know all of the latest advances in technology. This combination of highly qualified and skilled instructors, and the most modern equipment available, enables our career program graduates to stay on the competitive edge of the job market. Every career program combines classroom instruction with exciting, hands-on learning—often at actual business and industrial sites throughout the region. Check with your advisor for additional information.

*Prerequisite required for all career programs:
GECL 1155 College Seminar 1 cr.
*Unless student meets required guidelines.

Technical programs must be completed within 5 years of the start date.

**ADMINISTRATIVE OFFICE SPECIALIST (ADOS)**

**2 YEAR AAS Degree**

Administrative Office Specialist provides students with diverse training in managing the daily operations in various office environments.

The program will offer use of the latest office technology, including operating personal computers; using word processing, spreadsheet, database, presentation graphics, and desktop publishing software. Utilizing the Internet and training on an office networking system is also an integral part of the program. Many Administrative Office Specialist electives are offered to the students which may include a supervised internship. The curriculum also demonstrates the development of oral and written communication skills, ethical procedures and practices.

CREDITS REQUIRED FOR GRADUATION:

<table>
<thead>
<tr>
<th>FALL SEMESTER I</th>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ADOS 1285</td>
<td>Spreadsheets I</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 1251</td>
<td>Word Processing I</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 1261</td>
<td>Administrative Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADOS 1225</td>
<td>Keyboarding</td>
<td>3</td>
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<td>ENGL 1511</td>
<td>College Writing I</td>
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<td>General Electives</td>
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<tr>
<th>GENERAL EDUCATION ELECTIVES</th>
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<tr>
<td>SPCH 1550 – Intro to Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1550 – Public Speaking</td>
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<tr>
<td>SPCH 1565 – Interpersonal Communication</td>
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Total Semester Credits 17

<table>
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<tr>
<th>SPRING SEMESTER II</th>
<th>PROGRAM REQUIREMENTS</th>
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<tr>
<td>ADOS 1245</td>
<td>Presentation Graphics</td>
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<tr>
<td>ADOS 1252</td>
<td>Word Processing II</td>
<td>2</td>
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<tr>
<td>ADOS 1286</td>
<td>Spreadsheets II</td>
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<tr>
<td>ADOS 1255</td>
<td>General Transcription</td>
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<tr>
<th>LIBERAL ARTS ELECTIVES</th>
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<tr>
<td>PHIL 1551 – Intro to Ethics</td>
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<td>PSYC 2556 – Industrial Psychology</td>
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Total Semester Credits 15

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<th>FALL SEMESTER III</th>
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<tr>
<td>BUS 1657</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>ADOS 2690</td>
<td>Basic Accounting Concepts</td>
<td>3</td>
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<tr>
<td>ACCT 2691</td>
<td>Principles of Acct. I</td>
<td>4</td>
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<tr>
<td>ADOS 1291</td>
<td>Administrative Office Management</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 2275</td>
<td>Business Human Dynamics</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 2285</td>
<td>Database I</td>
<td>2</td>
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<td>MATH 1511 – Foundations of Math I</td>
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Total Semester Credits 17/18

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<th>SPRING SEMESTER IV</th>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>ADOS 1235</td>
<td>Integrated Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>ADOS 1269</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ADOS 2286</td>
<td>Database II</td>
<td>2</td>
</tr>
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<tr>
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<tbody>
<tr>
<td>GECL 2175 – Job Search Strategies</td>
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<tr>
<td>ENGL 1532 – Technical Writing</td>
<td>3</td>
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</table>

Total Semester Credits 15
# Administrative Office Specialist (ADOS)

## Diploma

<table>
<thead>
<tr>
<th>Credits Required:</th>
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### Fall Semester I

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADOS 1285 Spreadsheets I</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 1251 Word Processing I</td>
<td>2</td>
</tr>
<tr>
<td>ADOS 1261 Administrative Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADOS 1225 Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>BUS 1657 Business Communications</td>
<td>3</td>
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<tr>
<td>ADOS 1291 Administrative Office Management</td>
<td>2</td>
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<tr>
<td>ADOS 2285 Database I</td>
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Total Semester Credits: 17

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADOS 1245 Presentation Graphics</td>
<td>2</td>
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<tr>
<td>ADOS 1252 Word Processing II</td>
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<tr>
<td>ADOS 1235 Integrated Software Applications</td>
<td>3</td>
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<tr>
<td>ADOS 1255 General Transcription</td>
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<tr>
<td>ADOS 1269 Desktop Publishing</td>
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<tr>
<td>Required Admin. Office Specialist Electives (see list)</td>
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General Education Requirement

<table>
<thead>
<tr>
<th>Program</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GECL 2175 Job Search Strategies</td>
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Total Semester Credits: 18

## Spring Semester II

### Program Requirements

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<tr>
<td>ADOS 1285 Spreadsheets I</td>
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<tr>
<td>ADOS 1251 Word Processing I</td>
<td>2</td>
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<td>ADOS 1261 Administrative Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADOS 1225 Keyboarding</td>
<td>3</td>
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<tr>
<td>ADOS 1291 Administrative Office Management</td>
<td>2</td>
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### Total Semester Credits

17

## Administrative Office Specialist (ADOS)

### Certificate

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### Fall Semester I

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<td>ADOS 1285 Spreadsheets I</td>
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<tr>
<td>ADOS 1251 Word Processing I</td>
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<tr>
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<td>ADOS 1291 Administrative Office Management</td>
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</tr>
<tr>
<td>ADOS 2285 Database I</td>
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<tr>
<td>GECL 2175 Job Search Strategies</td>
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Total Semester Credits: 18

### Administrative Office Specialist Electives

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<tr>
<td>ACCT 1646</td>
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<tr>
<td>ACCT 2691</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACCT 2692</td>
<td>Principles of Accounting II</td>
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<tr>
<td>ADOS 1286</td>
<td>Spreadsheets II</td>
</tr>
<tr>
<td>ADOS 2286</td>
<td>Database II</td>
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### Other Electives

| BUS 1655 Intro to Business | 3 |
| ADOS 1235 Integrated Software Applications | 3 |
| ADOS 1269 Desktop Publishing | 3 |
| ADOS 2287 Internship | 2 |

### Business

**One-Year Diploma in Business**

The One-Year Diploma in Business is designed to provide a concentration of business courses for individuals who are interested in a business career or for currently employed individuals who wish to update their business skills and knowledge. The curriculum is designed to facilitate access to multiple business degree programs.

| Credits Required for Graduation: | 33 |

### Fall Semester

<table>
<thead>
<tr>
<th>Program Requirements</th>
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<tbody>
<tr>
<td>ACCT 2691 Principles of Accounting I</td>
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<tr>
<td>BUS 1655 Introduction to Business</td>
<td>3</td>
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<tr>
<td>ECON 1556 Principles of Economics: Micro</td>
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<td>ENGL 1511 College Writing I</td>
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Total Semester Credits: 17

### Spring Semester

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<td>BUS 2655 Legal Environment of Business</td>
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<td>BUS 2675 Principles of Management</td>
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<td>CSCI 1455 Introduction to Computers</td>
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<tr>
<td>SPCH 1565 Interpersonal Communication</td>
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Total Semester Credits: 16

*Recommended Business Electives:

| BUS 1666 Principles of Marketing | 3 |
| ECON 1557 Macro Economics | 3 |
| BUS 2677 Human Resource Management | 3 |
Two-Year A.S. Degree in Business

Total Credits: 60

REQUIRED BUSINESS RELATED COURSES

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<td>ACCT 2692</td>
<td>Principles of Accounting II</td>
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<td>BUS 1655</td>
<td>Introduction to Business</td>
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<td>BUS 1666</td>
<td>Principles of Marketing</td>
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<td>BUS 2655</td>
<td>Legal Environment of Business</td>
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<td>BUS 2675</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>CSCI 1455</td>
<td>Introduction to Computers</td>
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<tr>
<td>STAT 2551</td>
<td>Statistics I</td>
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<tr>
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Required Minnesota Transfer Curriculum

<table>
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<tr>
<th>Course ID#</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECON 1556</td>
<td>Principles of Economics: Micro</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
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<tr>
<td>ENGL 1532</td>
<td>Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
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<tr>
<td>SOC 1555</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1558</td>
<td>Human Relations or</td>
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<tr>
<td>SOC 1565</td>
<td>Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1555</td>
<td>Public Speaking or</td>
<td></td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
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<tr>
<td>Minnesota Transfer Curriculum</td>
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</table>

Total Credits: 30

The AS Degree in Business curriculum provides an option for students who want maximum transferability of course work and is designed for students who wish to balance business-related courses with liberal arts and science courses. The AS Degree in Business gives students an opportunity to prepare for an immediate career in the expanding field of business, with the option of transferring the credits earned to another college or university to complete a bachelor's degree in accounting, business administration, economics, marketing, management or related fields.

*Recommended Business Elective:

ECON 1557 Principles of Economics: Macro 3

Helpful background

Courses in math, design, drawing, drafting and woodworking are helpful. Business courses in accounting, management, sales and general business can be very useful.

Employment Opportunities

Graduates find work with small and large contractors doing new construction and remodeling, sash and window companies, lumber companies, and many become self-employed. Remodeling and energy conservation work are projected to become major areas of growth. Carpenters may advance to positions such as job supervisor, superintendent or a self-employed contractor. Other related employment possibilities include sales, lumberyard management, building inspection, cabinet making, roofing, drywall installation, maintenance carpentry or factory rep positions.

CREDITS REQUIRED FOR GRADUATION: 64

FRESHMAN YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS Credits L/L
CARP 1221 Blueprint Reading and Estimating 3 (1/2)
CARP 1225 Hand & Power Tools 2 (1/1)
CARP 1226 Math for Carpenters 2 (1/1)
CARP 1231 Principles of Carpentry I-A Theory 3 (2/0)
CARP 1241 Principles of Carpentry I-A Lab 5 (0/5)

GENERAL EDUCATION REQUIREMENTS Credits L/L
GEDM 1165 Technical Math 2 (2/0)

Total Semester Credits 16

FRESHMAN YEAR – SPRING SEMESTER

PROGRAM REQUIREMENTS Credits L/L
CARP 1222 Planning & Estimating 1 (1/0)
CARP 1227 Introduction to Building Codes 1 (1/0)
CARP 1228 Cabinet Making 2 (0/2)
CARP 1229 Concrete 1 (0/1)
CARP 1232 Principles of Carpentry I-B Theory 3 (3/0)
CARP 1242 Principles of Carpentry I-B Lab 6 (0/6)

GENERAL EDUCATION REQUIREMENTS Credits L/L
CSCI 1455 Intro to Computers 3 (3/0)

Total Semester Credits 17

SOPHOMORE YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS Credits L/L
CARP 2255 Foundations, Concrete, and Site Layout 4 (1/3)
CARP 2256 Blueprint Reading and Codes 2 (1/1)
CARP 2257 Scaffolding, Ladders and Power Tools 1 (0/1)

CARPENTRY

Two-Year Diploma in Carpentry

Lab activities involve actual hands-on construction. Working models and mock-ups as well as actual recreational and storage buildings and garages will be constructed by first-year students. Second-year students will build a project on a local site. Related instruction emphasizes math, blueprint reading, estimating, materials of construction, tools and equipment, principles of carpentry and safety.
CAREER PROGRAMS

CAREER PROGRAMS

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CARP 2258 Floor Framing 1 (0/1)
CARP 2259 Wall Framing 2 (1/1)
CARP 2265 Roof Framing 2 (1/1)
CARP 2266 Roof Coverings and Safety 2 (1/1)

GENERAL EDUCATION REQUIREMENTS
GEDC 2176 Technical Communication 2 (2/0)

Total Semester Credits 16

SOPHOMORE YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS
CARP 2275 Exterior Finishing 2 (0/2)
CARP 2276 Remodeling 2 (1/1)
CARP 2277 Insulation & Drywall 3 (1/2)
CARP 2278 Small Projects & Estimating 1 (1/0)
CARP 2285 Interior Finishing 2 (1/1)
CARP 2286 Cabinets, Floor Covering & Stair Finishing 4 (1/3)

GENERAL EDUCATION REQUIREMENTS
GECL 2175 Job Search Strategies 1 (0/1)

Total Semester Credits 15

EDUCATIONAL ASSISTANT

A.A.S. Degree

CREDITS REQUIRED FOR GRADUATION: 61

FRESHMAN YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS
EDAS 1202 Guiding Children’s Development & Behavior I 3
EDAS 1204 Understanding Family Systems 1
EDAS 1206 Communicating Constructively with Diverse Families 1
EDAS 1214 Supporting Learners 3
EDAS 1216 The Education Team 2
ENGL 1511 College Writing I 4

Total Semester Credits 14

FRESHMAN YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS
EDAS 1208 Guiding Children’s Development & Behavior II 3
EDAS 1210 Historical & Legal Foundations of Education 2
EDAS 1212 Environments for Learning 3
EDAS 1218 Health, Safety & Nutrition 3
MATH 1511 Foundations of Mathematics I 3
HLTH 1465 Drug Use & Abuse 2

Total Semester Credits 16

SOPHOMORE YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS
EDAS 2202 The Exceptional Learner 3
EDAS 2204 Assessment & Evaluation 1
EDAS 2206 Child Abuse & Neglect 3
SPCH 1585 Intercultural Communications 3
PSYC 2551 General Psychology 4
EDAS 1210 The Art of Home Visiting 2

Total Semester Credits 16

The Mesabi Range College Education Program

Mesabi Range College offers a variety of Teacher Preparation courses for students interested in a career in Early Childhood Education, Elementary Education, or Secondary Education. You can complete your Associate in Arts Degree while preparing yourself for transition to a four-year college by enrolling in EDUC courses at Mesabi Range College. As a student in the Education Program you will have opportunities to practice what you are learning in local, public school classrooms and Early Childhood centers. Early Childhood and Elementary Education courses articulate with the Unified Early Childhood Studies Program and the Elementary Education Program at the University of Minnesota-Duluth. In addition, a Spring Semester 2009 cohort of Iron Range students will allow learners to complete their Bachelor’s Degree in Unified Early Childhood Studies through UMD on the Mesabi Range College campus. In other words, you can finish a 4-year degree in Early Childhood Unified Studies without leaving the neighborhood! A rewarding career in Education is waiting for you… enroll now in EDUC courses at Mesabi!
SOPHOMORE YEAR – SPRING SEMESTER

PROGRAM REQUIREMENTS Credits
EDAS 2208 Assisting with Language & Literacy 3
EDAS 2212 Assisting with Math & Science 3
EDAS 2214 Professionalism for Educators 2
PSYC 2567 Lifespan Psychology 4
SOC 1557 Courtship, Marriage & Family 3

Total Semester Credits 15

EARLY CHILDHOOD PERSONAL CARE ATTENDANT Certificate

The Early Childhood Personal Care Attendant Certificate is comprised of 16 semester credits and is specifically designed to train individuals to provide educational assistance and personal care to children birth to eight years of age. Recipients of this certificate will be prepared to work in the following environments: the child’s home, foster care, child care homes and centers, preschool programs, Head Start and Early Childhood Family Education.

SCHOOL AGE PERSONAL CARE ATTENDANT Certificate

The School Age Personal Care Attendant Certificate is comprised of 16 semester credits and is specifically designed to train individuals to provide educational assistance and personal care to school age children. Recipients of this certificate will be prepared to work in the following environments: the child’s home, foster care, after school child care programs, and public and private schools.

ELECTRICAL AND INDUSTRIAL AUTOMATION TECHNOLOGY

The Electrical and Industrial Automation Technology program provides training in the areas of electrical maintenance, industrial electronics, process control, instrumentation, fluid power, electrical-mechanical systems and integrated computer control.

The first semester of the program focuses on the fundamentals of electrical/electronic theory in lecture and practical applications performed in lab exercises. The second semester of the program teaches the basics of industrial control, including motor control, instrumentation/process control, programmable logic controllers, and the national electrical code. In the second year of the program, lecture-based lab work builds on the basics with additional technology continually being introduced.

Career Opportunities

In order for industries to remain competitive, they must reduce cost while improving productivity. This requires adapting to modern technology. Automation of equipment and processes is increasingly used to accomplish this goal. A need exists for personnel trained in servicing and maintaining high technology equipment. The job outlook for service and technical personnel is expanding.

Opportunities exist in plant engineering/maintenance in almost all sectors of industry including paper/pulp, manufacturing, assembly, mining, transportation, warehousing/distribution, utilities, graphics/publishing, chemical processing, and petroleum refining.

ELECTRICAL AND INDUSTRIAL AUTOMATION ENGINEERING TECHNOLOGY

A.A.S. Degree

CREDITS REQUIRED FOR GRADUATION: 74

FRESHMAN YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS Credits L/L
EIAT 1253 Intro to DC/AC Electronics 4 (1/3)
EIAT 1233 Intro to Solid State Electronics 4 (1/3)
EIAT 1243 Intro to Digital Electronics 3 (1/2)
EIAT 1295 Basic Soldering 1 (0/1)
EIAT 1244 Industrial Pneumatics 2 (0/2)

GENERAL EDUCATION REQUIREMENTS Credits L/L
CSCI 1455 Intro to Computers 3 (3/0)
3 credits from MnTC Goal Area 4 3 (3/0)

Total Semester Credits 20

FRESHMAN YEAR – SPRING SEMESTER

PROGRAM REQUIREMENTS Credits L/L
EIAT 1251 Programmable Logic Controllers 3 (1/2)
EIAT 1265 National Electrical Code 2 (2/0)
EIAT 1266 Industrial Motor Control 6 (2/4)
EIAT 1275 Introduction to Process Control 2 (1/1)
EIAT 1276 Electrical/Mechanical Equipment and Systems 2 (0/2)
EIAT 1260 Electrical Safety 1 (1/0)

GENERAL EDUCATION REQUIREMENTS Credits L/L
ENGL 1511 College Writing I 4 (4/0)

Total Semester Credits 20
### Sophomore Year – Fall Semester

**Program Requirements**

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<td>EIAT 2265</td>
<td>Electrical Control of Machines</td>
<td>2</td>
<td>(1/1)</td>
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<tr>
<td>EIAT 2266</td>
<td>Temperature, Strain, and Analytical Instruments</td>
<td>3</td>
<td>(1/2)</td>
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<tr>
<td>EIAT 2267</td>
<td>Pressure, Flow, and Level Instruments</td>
<td>3</td>
<td>(1/2)</td>
</tr>
<tr>
<td>EIAT 2252</td>
<td>Advanced Programmable Logic Controllers</td>
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<td>(1/3)</td>
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**General Education Requirements**

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<td>PHYS 1551</td>
<td>Introductory Physics</td>
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<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
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**General Education Elective** (may be taken in place of PHYS 1551)

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<td>PHYS 1561</td>
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**Total Semester Credits**

17

### Sophomore Year – Spring Semester

**Program Requirements**

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<tr>
<td>EIAT 2266</td>
<td>Temperature, Strain, and Analytical Instruments</td>
<td>3</td>
<td>(1/2)</td>
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<tr>
<td>EIAT 2267</td>
<td>Pressure, Flow, and Level Instruments</td>
<td>3</td>
<td>(1/2)</td>
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<tr>
<td>EIAT 2252</td>
<td>Advanced Programmable Logic Controllers</td>
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**General Education Requirements**

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<td>Human Dynamics</td>
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**General Education Elective** (may be taken in place of GECL 2185)

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**Total Semester Credits**

15

### Freshman Year – Fall Semester

**Program Requirements**

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<th>Credits</th>
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<tr>
<td>EIAT 1233</td>
<td>Intro to Solid State Electronics</td>
<td>4</td>
<td>(1/3)</td>
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<td>EIAT 1243</td>
<td>Intro to Digital Electronics</td>
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<td>(1/2)</td>
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<td>EIAT 1295</td>
<td>Basic Soldering</td>
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<td>EIAT 1244</td>
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**General Education Requirements**

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**Total Semester Credits**

17

### Freshman Year – Spring Semester

**Program Requirements**

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<td>EIAT 2295</td>
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<td>EIAT 2235</td>
<td>Industrial Data Communications</td>
<td>3</td>
<td>(1/2)</td>
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<tr>
<td>EIAT 2245</td>
<td>Industrial PC Applications</td>
<td>3</td>
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<tr>
<td>EIAT 2276</td>
<td>Automated Industrial Control</td>
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<td>EIAT 2277</td>
<td>Controllers and Control Loops (Tuning)</td>
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**General Education Requirements**

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**Total Semester Credits**

15

### Electrical and Industrial Automation Technology

**Diploma**

**Credits Required For Graduation:** 64

### Sophomore Year – Fall Semester

**Program Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>L/L</th>
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<tbody>
<tr>
<td>EIAT 2265</td>
<td>Electrical Control of Machines</td>
<td>2</td>
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</tr>
<tr>
<td>EIAT 2266</td>
<td>Temperature, Strain, and Analytical Instruments</td>
<td>3</td>
<td>(1/2)</td>
</tr>
<tr>
<td>EIAT 2267</td>
<td>Pressure, Flow, and Level Instruments</td>
<td>3</td>
<td>(1/2)</td>
</tr>
<tr>
<td>EIAT 2252</td>
<td>Advanced Programmable Logic Controllers</td>
<td>4</td>
<td>(1/3)</td>
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</table>

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
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**Total Semester Credits**

17

### Sophomore Year – Spring Semester

**Program Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EIAT 2295</td>
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<td>EIAT 2235</td>
<td>Industrial Data Communications</td>
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<td>EIAT 2245</td>
<td>Industrial PC Applications</td>
<td>3</td>
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<td>EIAT 2276</td>
<td>Automated Industrial Control</td>
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<td>EIAT 2277</td>
<td>Controllers and Control Loops (Tuning)</td>
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**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
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</table>

**Total Semester Credits**

15
EXERCISE AND SPORTS SCIENCE
Two-Year A.S. Degree

The Exercise and Sports Science Associate of Science Degree is designed to prepare students to work in the health and fitness industry. This degree offers students an exceptional learning opportunity in the basic sciences as well as application to the fields of sport, health and exercise. The A.S. degree would prepare students for national certification in professional organizations in the field of exercise science and allow for transfer into an exercise science or physical education major. Students will have on-campus opportunities working in the campus fitness center. The knowledge and skills gained in this program will enhance the graduate’s success in securing jobs in the fitness, exercise science, physical therapy and physical education fields.

While the courses required in the Exercise and Sports Science Associate of Science Degree will fulfill many of the lower division major requirements for a degree in the Exercise Sciences or Physical Education at many colleges and universities, students are advised to meet with a counselor to assess the course requirement for specific institutions.

Upon completion of this program, students are encouraged to take one of the national certification examinations. The two recommended certification agencies are the American College of Sports Medicine (ACSM) and the American Council on Exercise (ACE). ACSM offers certification as a Health Fitness Instructor (ACSM – HFI). The American Council on Exercise (ACE) provides certification as a Personal Trainer or Group Fitness Instructor.

CREDITS REQUIRED FOR GRADUATION: 66

PROGRAM REQUIREMENTS Credits
HLTH 1415 Treatment of Sports Injuries 3
HLTH 1459 Introduction to Wellness 3
HLTH 1657 Responding to Emergencies 2
HLTH 2459 Introduction to Nutrition 3
PHED 1415 Weight Training 1
PHED 1418 Physical Fitness 1
PHED 2416 Current Issues in Exercise Science 3
PHED 2417 Exercise and Fitness Assessment 3
PHED 2418 Group Individual Exercise 1
PHED 2425 Social and Ethical Aspects of Sport and Physical Activity 3
PHED 2426 Psychology of Sport and Physical Activity 3

CHOOSE ONE OF THE FOLLOWING (check with transferring institution)
PHED 1489 Intro to Physical Education 3
PHED 2415 Introduction to Exercise Science 3

Total Semester Credits 31

GENERAL EDUCATION REQUIREMENTS Credits
BIOL 1545 Human Biology 3
BIOL 2551 Human Anatomy and Physiology I 4
ENGL 1559 Art of Film 3
PSYC 2551 General Psychology 4
ENGL 1511 College Writing I 4
FRRY 1315 Freshman Year Experience 1
SPCH 1565 Interpersonal Communication 3
SOC 1555 Introduction to Sociology 3
MATH 1521 College Algebra 4
PHIL 1551 Introduction to Ethics 3

FRESHMAN YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS Credits L/L
GRAP 1225 Direct to Plate Technology 2 (1/1)
GRAP 1226 Graphic Communications 2 (1/1)
GRAP 1227 Film Assembly 3 (1/2)
### CAREER PROGRAMS

#### GRAPHIC DESIGN AND PRINT COMMUNICATIONS

**Two-Year Diploma**

**CREDITS REQUIRED FOR GRADUATION:** 64

**FRESHMAN YEAR – FALL SEMESTER**

<table>
<thead>
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<th>PROGRAM REQUIREMENTS</th>
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<td>MATH 1511</td>
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**Total Semester Credits** 16

**FRESHMAN YEAR – SPRING SEMESTER**

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**Total Semester Credits** 18

**SOPHOMORE YEAR – FALL SEMESTER**

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<th>PROGRAM REQUIREMENTS</th>
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<td>GRAP 2253</td>
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<td>GEDM 1165</td>
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**Total Semester Credits** 17

**SOPHOMORE YEAR – SPRING SEMESTER**

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<td>CSCI 1455</td>
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**Total Semester Credits** 16

**SOPHOMORE YEAR – FALL SEMESTER**

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**Total Semester Credits** 16

**SOPHOMORE YEAR – SPRING SEMESTER**

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**Total Semester Credits** 16
GRAP 2273  Adobe Acrobat/Distiller  2 (1/1)
GRAP 2274  Industry Portfolio Capstone Project  2 (1/1)

GENERAL EDUCATION REQUIREMENTS  Credits  L/L
GECL 2175  Job Search Strategies  1 (1/0)
GED 2185  Human Dynamics  1 (1/0)

Total Semester Credits  16

HUMAN SERVICES

Two-Year A.A.S. Degree in Human Services

Human Services is designed for students interested in helping people to help themselves with problems of psychological or social survival. The clients generally have such massive problems of survival that the realistic goal is to help an individual or group learn to function effectively in today’s world.

The A.A.S. Program is designed to provide the training appropriate for beginning employment in a human services occupation. One can also obtain an A.A. Degree with a concentration in human services which provides the foundation for a long-term career in a professional field. To complete an A.A. Degree in Human Services or Human Services/Chemical Dependency, students must complete the General Education minimums.

Mesabi Range Community & Technical College does have specific transfer articulation agreements with the Social Work programs at the College of St. Scholastica and the University of Wisconsin – Superior leading to a BSW degree and an articulation agreement with the Applied Psychology Program at Bemidji State University.

Career Opportunities:

A graduate from the A.A.S. Mesabi Range Human Services program will have acquired an understanding of the concepts principles, skills, methods, and techniques of human service agencies, hospitals, nursing homes, schools, half-way houses, and public service related business or industry. Students who graduate with the A.A. degree in Human Services can transfer to continue their education and receive an advanced professional four-year degree.

CREDITS REQUIRED FOR GRADUATION:  64

FRESHMAN YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS  Credits  L/L
CDEP 1255  Psychology of Addiction  or
CDEP 1261  Chemical Dependency Theories  or
CDEP 2262  Chemical Dependency Assessment
HLTH 1465  Drug Use and Abuse
*HSER 1231  Introduction to Human Services

Total Semester Credits  16

FRESHMAN YEAR – SPRING SEMESTER

PROGRAM REQUIREMENTS  Credits  L/L
*HSER 1232  Helping Process
*HSER 1233  Interviewing

Total Semester Credits  16

SOPHOMORE YEAR – FALL SEMESTER

PROGRAM REQUIREMENTS  Credits  L/L
*HSER 2240  Human Services Internship
*PSYC 2655  Group Dynamics

Total Semester Credits  16

SOPHOMORE YEAR – SPRING SEMESTER

PROGRAM REQUIREMENTS  Credits  L/L
*HSER 2234  Crisis Intervention
*HSER 2240  Human Services Internship

Total Semester Credits  16

*Fieldwork—total of four (4) credits. May be taken as four (4) credits in one semester or two (2) credits in each of the sophomore semesters.

*Must be taken in the semester indicated.

*In 2008 a Baccalaureate Degree will be required in order to obtain licensure. Students should note that new licensure mandate voids previous sunset clause.

HUMAN SERVICES

CHEMICAL DEPENDENCY SPECIALIST

Two-Year A.A.S Degree

Chemical Dependency Specialist is a Human Services option designed for people interested in entering or furthering their present level of training in the chemical dependency field. A graduate will have acquired an
understanding of the concepts, principles, skills, methods, and techniques needed to work with those whose lives have been seriously affected by chemical abuse. Graduates may seek employment in chemical dependency treatment programs; information, diagnostic, and referral centers; outpatient or follow-up care programs; halfway houses, schools, hospitals, clinics, prisons, social agencies; and programs supported by business, church, and government. (See addendum in reference to licensure.)

CREDITS REQUIRED FOR GRADUATION: 64

FRESHMAN YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS Credits L/L
*CDEP 1255 Psychology of Addiction 3 3/0
HLTH 1465 Drug Use and Abuse 2 2/0
*HSER 1231 Introduction to Human Services 4 4/0

MnTC Requirements
ENGL 1511 College Writing I 4 4/0
SPCH 1555 Public Speaking or Interpersonal Communication 3 3/0

Total Semester Credits 16

FRESHMAN YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS Credits L/L
*CDEP 1261 Chemical Dependency Theories 2 2/0
*HSER 1232 Helping Process 3 3/0
*HSER 1233 Interviewing 2 2/0

MnTC Requirements
ENGL 1512 College Writing II 4 4/0
PSYC 2551 General Psychology 4 4/0

General Electives 1

Total Semester Credits 16

SOPHOMORE YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS Credits L/L
*CDEP 2262 Chemical Dependency Assessment 2 2/0
*CDEP 2240 Chemical Dependency Internship 5 0/5
*PSYC 2655 Group Dynamics 3 3/0

MnTC Requirements
PHIL 1551 Introduction to Ethics 3 3/0
SOC 1558 Human Relations 3 3/0

Total Semester Credits 16

SOPHOMORE YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS Credits L/L
*CDEP 2263 Treatment and Procedures 4 4/0
*HSER 2234 Crisis Intervention 3 3/0

*Fieldwork—May be taken in either of the sophomore semesters.
*Must be taken in the semester indicated.
**See Transfer Program section for an Associate in Arts Degree in Human Services.

CHEMICAL DEPENDENCY SPECIALIST Certificate
PROGRAM REQUIREMENTS Credits L/L
*CDEP 1255 Psychology of Addiction 3 3/0
*CDEP 1261 Chemical Dependency Theories 2 2/0
*CDEP 2262 Chemical Dependency Assessment 2 3/0
*CDEP 2263 Treatment and Procedures 4 4/0
*CDEP 2240 Chemical Dependency Internship 5 0/5
HLTH 1465 Drug Use and Abuse 2 2/0
*HSER 1232 Helping Process 3 3/0
*PSYC 2655 Group Dynamics 3 3/0

Total Semester Credits 24

This certificate is intended for those individuals who have completed prior Human Services related education and/or have extensive work experience in Human Services related fields.

The coursework in this program will equip students with the intellectual tools and core counseling skills necessary to become an effective drug counselor. During the internship the student will practice and further develop these skills under the supervision of a Licensed Chemical Dependency counselor at an approved internship site. The internship experience will cover the entire continuum of drug treatment and rehabilitation care including prevention, intervention, primary care, and aftercare. This program will provide the opportunity for students to develop proficiencies in the twelve core functions of chemical dependency counseling as defined by the Minnesota Department of Public Health.

Graduates may seek employment in chemical dependency treatment programs; information, diagnostic and referral centers; outpatient or follow-up care programs; halfway houses, schools, hospitals, clinics, prisons, social agencies; and in other programs supported by business, church, and government agencies. (See addendum in reference to licensure.)
In 2008 a Baccalaureate Degree will be required in order to obtain licensure. Students should note that new licensure mandate voids previous sunset clause.

INDUSTRIAL TECHNOLOGY

Mining Emphasis Program
Two-Year A.A.S. Degree

The Industrial Technology with Mining Emphasis AAS degree is tailored to meet the needs of the Iron Range’s mining industry—as well as other industries—by teaching critical knowledge to future employees. You will achieve broad-based skills training as well as in-depth knowledge in many facets of production, quality, safety, and maintenance: skills critical for work in taconite mining and processing, power generation, and many other industries. We refer to this as a “Rock to Dock” education.

Potential summer internship opportunities at local mines and other employers will provide valuable hands-on, practical experience coupled with the chance to network for prospective employment AND make money.

CREDITS REQUIRED FOR GRADUATION: 64

FRESHMAN YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS Credits L/L
IMRT 1216 Industrial Orientation 2 (0/2)
ITSF 1486 MSHA New Miner Training 1 (1/0)
IMT 1251 Basic Maintenance Welding and Cutting I 3 (1/2)
IMT 1238 Rigging 2 (1/1)
IMT 1241 Basic Blueprint Reading & Sketching 3 (1/2)

GENERAL EDUCATION REQUIREMENTS Credits L/L
CSCI 1455 Introduction to Computers 3 (3/0)
MATH 1511 Foundations of Math or College Algebra 3 (3/0)

Total Semester Credits 17/18

FRESHMAN YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS Credits L/L
EIAT 1255 Electrical for Operators 3 (2/1)
ATMX 1265 Mobile Equipment Maintenance 3 (3/0)
IMRT 1215 Intro to Industrial Maintenance 3 (2/1)
IMT 1256 Drive Components & Troubleshooting 3 (2/1)

GENERAL EDUCATION REQUIREMENTS Credits L/L
ENGL 1532 Technical Writing or 3 (3/0)
ENGL 1511 College Writing I 4 (4/0)

Total Semester Credits 15 or 16

SOPHOMORE YEAR – FALL SEMESTER
PROGRAM REQUIREMENTS Credits L/L
PHYS 1551 Introductory Physics 4 (3/1)
EIAT 1256 Process Control for Operators 4 (2/2)
IMT 2261 Hydraulics & Schematics 3 (1/2)
ITSF 1487 MSHA Refresher 1 (1/0)

GENERAL EDUCATION REQUIREMENTS Credits L/L
SPCH 1550 Introduction to Communications 3 (3/0)
GEDC 2175 Job Search Strategies 1 (1/0)

Total Semester Credits 16

SOPHOMORE YEAR – SPRING SEMESTER
PROGRAM REQUIREMENTS Credits L/L
IMT 1245 Lube & Bearings 3 (1/2)
IMT 2265 Alignment & Introduction to Conveyor Systems 3 (1/2)
IMT 2225 Pumps 2 (1/1)
IMRT 2255 MSSC Production Technician Certification 3 (3/0)

GENERAL EDUCATION REQUIREMENTS Credits L/L
PSYC 2556 Industrial Organizational Psychology 4 (4/0)
Open Elective 2

Total Semester Credits 17

INDUSTRIAL MECHANICAL TECHNOLOGY
(MILLWRIGHT) Two-Year Diploma

Students learn safety, measurements, troubleshooting, repair procedures and the use of hand and power tools. The program also covers hydraulics, pneumatics, lubrication systems, heating systems, cooling systems and welding. This knowledge is put to use in the repair of actual plant and pit equipment such as cranes, pumps, speed reducers, and other field equipment.

Helpful Background

Courses in industrial arts, math, science and mechanical drawing are very helpful. Hard toed boots, hard hats (helmets), and safety glasses will be required.

Employment Opportunities

Job placement for Industrial Mechanical Technology students has traditionally been very high, as industry cannot afford to be shut down for too long. Qualified mechanics/millwrights find work repairing both plant and weld equipment. A demand exists for mechanics/millwrights in a variety of manufacturing and processing facilities such as hardboard plants, paper companies, food processing plants, and mining companies. Graduates have also found employment with heavy equipment dealers, contractors, rail maintenance crews, and in specialty areas
involving hydraulics, parts distribution, solar energy, logging, cooling, and heating.

CREDITS REQUIRED FOR GRADUATION: 64

FRESHMAN YEAR – FALL SEMESTER

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tr>
<td>IMT 1231 Industrial Accident Prevention I</td>
<td>2</td>
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<tr>
<td>IMT 1235 Basic Hydraulic Symbols &amp; Components</td>
<td>1</td>
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<tr>
<td>IMT 1237 Elements of Mechanic/Equipment Operations</td>
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<td>IMT 1238 Rigging</td>
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<tr>
<td>IMT 1241 Basic Blueprint Reading &amp; Sketching I</td>
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<tr>
<td>IMT 1251 Basic Maintenance Welding &amp; Cutting I</td>
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GENERAL EDUCATION REQUIREMENTS

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Total Semester Credits: 17

FRESHMAN YEAR – SPRING SEMESTER

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<td>IMT 1242 Basic Blueprint Reading &amp; Sketching II</td>
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<td>IMT 1245 Lubrication &amp; Bearings</td>
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<td>IMT 1247 Hydraulic Basics</td>
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<td>IMT 1252 Basic Maintenance Welding &amp; Cutting II</td>
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<td>IMT 1256 Drive Components Troubleshooting</td>
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<td>IMT 1257 Measuring Tools &amp; Layout</td>
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Total Semester Credits: 16

SOPHOMORE YEAR – FALL SEMESTER

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<td>IMT 2251 Advanced Maintenance Welding &amp; Cutting</td>
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<td>IMT 2261 Hydraulics &amp; Schematics</td>
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<tr>
<td>IMT 2265 Alignment &amp; Introduction to Conveyor Systems</td>
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GENERAL EDUCATION REQUIREMENTS

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Total Semester Credits: 15

SOPHOMORE YEAR – SPRING SEMESTER

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<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
<th>L/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMT 2232 Safety &amp; Equipment Maintenance II</td>
<td>4</td>
<td>(0/4)</td>
</tr>
<tr>
<td>IMT 2242 Advanced Blueprint Reading</td>
<td>6</td>
<td>(1/5)</td>
</tr>
<tr>
<td>IMT 2262 Pneumatics &amp; Hydraulic Troubleshooting</td>
<td>3</td>
<td>(1/2)</td>
</tr>
<tr>
<td>IMT 2266 Introduction to HVAC</td>
<td>1</td>
<td>(1/0)</td>
</tr>
<tr>
<td>ITSF 1485 OSHA Certification</td>
<td>1</td>
<td>(1/0)</td>
</tr>
<tr>
<td>EMSV 1488 HeartSaver First Aid with CPR &amp; AED</td>
<td>1</td>
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</tbody>
</table>

Total Semester Credits: 16

MASONRY

MASONRY CERTIFICATE

Graduates of the Masonry Certificate program will be prepared to enter into a career in the Masonry Trades Profession, with the knowledge and skills necessary in the residential construction market today. Students will be required to move brick, stone, and blocks for completion of curriculum requirements. The proper use of hand tools is necessary to properly mortar masonry units together. Students will learn to work off residential blueprints to compute materials and costs on the job. No previous masonry knowledge is necessary or implied.

Helpful Background

A basic background in geometry will be helpful as the student will learn the Pythagorean Theorem, compute areas of cylinders, yardage of concrete, and mortar mixes.

Career Opportunities

The program will fulfill the growing need for professional masons. There are skilled mason shortages in most large cities across the United States. Nearly 100% of homes built today contain some type of masonry construction. Masonry construction is very strong, low maintenance, and serves the needs of our population with roads, buildings, water and drain systems, factories, hospitals, homes, etc. The journeyman mason averages over $22 per hour across the United States while Minnesota averages $30 per hour.

CREDITS REQUIRED FOR GRADUATION: 29

FALL SEMESTER

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
<th>L/L</th>
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<tbody>
<tr>
<td>MASN 1221 Blueprint Reading and Estimating</td>
<td>2</td>
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<tr>
<td>MASN 1223 Principles of Block Laying</td>
<td>5</td>
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<tr>
<td>MASN 1224 Mortar/Concrete</td>
<td>2</td>
<td>(0/2)</td>
</tr>
<tr>
<td>MASN 1225 Hand &amp; Power Tools</td>
<td>2</td>
<td>(1/1)</td>
</tr>
<tr>
<td>MASN 1226 Math for Masons</td>
<td>2</td>
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</tr>
<tr>
<td>MASN 1227 Intro to Building Codes</td>
<td>1</td>
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Total Semester Credits: 14
## SOPHOMORE YEAR – SPRING SEMESTER

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MASN 1222</td>
<td>Planning &amp; Estimating</td>
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<tr>
<td>MASN 1233</td>
<td>Principles of Bricklaying</td>
<td>6</td>
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<tr>
<td>MASN 1243</td>
<td>Principles of Stonework</td>
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<tr>
<td>MASN 2257</td>
<td>Scaffolding</td>
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**GENERAL EDUCATION REQUIREMENTS**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
<td>1</td>
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</table>

**Total Semester Credits**: 15

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## MOBILE EQUIPMENT SERVICE TECHNICIAN DIPLOMA

Students learn the fundamentals of light equipment maintenance on heavy industry mobile and non-mobile equipment such as All Surface Vehicles (ASVs), backhoes, bobcats, forklifts, steer-skidders, cranes, booms, scissor lifts, and other equipment that serve the mining, paper and pulp, and power generation industries. Students will learn to diagnose, troubleshoot, and repair problems related to brake systems, computerized engine systems, engine control systems, electrical systems, fuel systems, hydraulics, ignitions, power transmissions, seals and lubricants. Also, students will learn rigging, schematics, and safety skills. Course work also provides customer service training, critical thinking, computer, and communication skills.

**CREDITS REQUIRED FOR GRADUATION**: 58

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## FRESHMAN YEAR – FALL SEMESTER

**PROGRAM REQUIREMENTS**

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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ATMX 1256</td>
<td>Engine Repair</td>
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<tr>
<td>ATMX 2256</td>
<td>Basic Electrical Systems</td>
<td>4</td>
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<tr>
<td>IMT 2261</td>
<td>Hydraulics and Schematics</td>
<td>3</td>
<td>(1/2)</td>
</tr>
<tr>
<td>ATMX 1245</td>
<td>General Mobile Equipment Service</td>
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**GENERAL EDUCATION REQUIREMENTS**

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<th>Credits</th>
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<tr>
<td>GEDC 1165</td>
<td>Technical Math</td>
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<tr>
<td>GECL 1155</td>
<td>College Seminar</td>
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**Total Semester Credits**: 17

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## FRESHMAN YEAR – SPRING SEMESTER

**PROGRAM REQUIREMENTS**

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<td>WELD 1221</td>
<td>Intro to SMAW</td>
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<tr>
<td>WELD 1222</td>
<td>Basic SMAW Skills</td>
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<tr>
<td>ATMX 2262</td>
<td>Advanced Mobile Equipment Computers</td>
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<tr>
<td>IMT 2262</td>
<td>Pneumatic and Hydraulics Troubleshooting</td>
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<tr>
<td>IMT 1231</td>
<td>Industrial Accident</td>
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**GENERAL EDUCATION REQUIREMENT**

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<tr>
<td></td>
<td>Computer Literacy</td>
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**Total Semester Credits**: 14

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## SOPHOMORE YEAR – FALL SEMESTER

**PROGRAM REQUIREMENTS**

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<tr>
<td>ATMX 1257</td>
<td>Fuel Systems</td>
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<tr>
<td>IMT 1238</td>
<td>Rigging</td>
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<tr>
<td>ATMX 1261</td>
<td>Power Transmission</td>
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<tr>
<td>ATMX 2265</td>
<td>Shop Management</td>
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**GENERAL EDUCATION REQUIREMENT**

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<tr>
<td>GECL 2176</td>
<td>Technical Communications</td>
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**Total Semester Credits**: 12

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## SOPHOMORE YEAR – SPRING SEMESTER

**PROGRAM REQUIREMENTS**

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<tr>
<td>ATMX 1271</td>
<td>Brakes</td>
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<tr>
<td>ATMX 2276</td>
<td>Advanced Air Conditioning/Heating</td>
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<td>IMT 2232</td>
<td>Safety &amp; Equipment Maintenance II</td>
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**GENERAL EDUCATION REQUIREMENT**

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<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
<td>1</td>
<td>(1/0)</td>
</tr>
<tr>
<td>EMSV 1488</td>
<td>Heartsaver First Aid with CPR and AED</td>
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<tr>
<td>HLTH 1486</td>
<td>MSHA Refresher/Fire Safety &amp; Response</td>
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</table>

**Total Semester Credits**: 15

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## NURSING

### INTRODUCTION TO NURSING/CERTIFIED NURSING ASSISTANT/HOME HEALTH AIDE

The Nursing Assistant (NA)/Home Health Aide (HHA) program is approved by the Department of Health in Minnesota. It prepares students for jobs in a variety of health care settings such as nursing homes, semi-independent living facilities, hospitals, group homes and home care agencies. Responsibilities include such skills as personal care, positioning, transferring, vital signs and documentation.

The 4-credit course consists of lecture, lab, text work, group activities and hands-on clinical experience in a long-term setting. This course is a requirement for the Practical Nursing program. Upon completion of the course, students are eligible to take the Minnesota State Competency Examination. This test is offered at the end of the class. Successful completion of this test allows students to be certified and placed on the Nursing Assistant/Home Health Aide Registry for the State of Minnesota.

The Nursing Assistant/Home Health Aide program will be offered twice during the fall semester, three times during the spring semester, and once during the summer semester.

**CREDITS REQUIRED FOR GRADUATION**: 4
Theory
• Introduction to Health Care
• Resident’s Need for Psycho-Social Adjustment
• Resident’s Need for a Clean, Safe and Comfortable Environment
• Resident’s Need for Skin Care
• Nursing Assistant Competencies
• Resident’s Need for Rest and Sleep
• Resident’s Need for Communication
• Resident’s Need for Activity and Exercise
• Resident’s Need for Nourishment
• Resident’s Need for Comfort
• Home Health Care

Clinical
• Students will be assigned 3-4 days of resident care in a long-term care facility at the completion of course work.
• Evening care
• Morning care
• Related Patient Care
• Home Health Care

PRACTICAL NURSING
Three-Semester Diploma
The Mesabi Range Community & Technical College Practical Nursing program is a member of the Itasca Nursing Education Consortium (INEC). This enables the nursing student to continue their nursing education within this consortium without concern for transferability of nursing courses.

Upon completion of this nursing program, students may advance to the next level of their nursing education or complete the NCLEX-PN examination to become a Licensed Practical Nurse.

Program Description:
Before admission to the Practical Nursing program, students need to have successfully completed, with a letter grade of “C” or better, Intro to Computers (CSCI 1455) and General Psychology (PSYC 2551). Prior to the second semester of the Practical Nursing program, students must also have successfully completed the 4 credit Introduction to Nursing course (NURS 1215) with a letter grade of “C” or better and a CPR course (BLS for Healthcare Providers). Two liberal arts courses, Lifespan Development (PSYC 2567) and College Writing (ENGL 1511) are included as part of the program.

All prerequisite and Semester I courses must be successfully completed with a letter grade of “C” or better before proceeding to Semester II courses. Students must obtain an 80 percent (“C”) success rate in each instructional course in order to continue in the program. Semester II courses must be completed with an 80 percent (“C”) success rate in order to continue to Semester III.

During the clinical portion of the program, occurring during Semester II and III, students spend two days of each week at the Virginia Regional Medical Center, the Virginia Convalescent Care Unit, and other facilities. Background checks are required.

Course equivalency determination is subject to review and approval by the Mesabi Range Community & Technical College admissions personnel and the Practical Nursing Program Director.

Employment Opportunities:
According to the Bureau of Labor statistics, health-related careers are expanding. There continues to be a significant demand for LPNs throughout the state and nation, as well as the local area.

Practical nurses may find employment in hospitals, clinics, long-term care facilities, home care, public health agencies, the armed services, and other areas.

The INEC program provides an opportunity for graduates to continue in advanced educational programs to obtain an Associate in Arts Degree, a Bachelor of Nursing Degree, or a Master in Nursing Degree.

CREDITS REQUIRED FOR GRADUATION: 63

SPRING SEMESTER I
PROGRAM REQUIREMENTS Credits L/L
NURS 1225 Nutrition 2 (2/0)
NURS 1227 Medical Terminology 1 (1/0)
NURS 1256 Integrated Science 4 (4/0)
NURS 1257 Trends in Nursing 1 (1/0)

GENERAL EDUCATION REQUIREMENTS Credits L/L
ENGL 1511 College Writing I 4 (4/0)
PSYC 2567 Lifespan Development 4 (4/0)

Total Semester Credits 16

FALL SEMESTER II
PROGRAM REQUIREMENTS Credits L/L
NURS 1222 Applied Nursing Skills 4 (0/4)
NURS 1232 Applied Math & Medications 2 (1/1)
NURS 1242 Maternal/Child Health & Clinical 5 (3/2)
NURS 1261 Adult Nursing I & Clinical 8 (4/4)

Total Semester Credits 19
PARAMEDIC

Paramedic Program
Two-Year A.A.S. Degree

Graduates of this Associate Degree program will be qualified and skilled professionals in the field of Emergency Medical Services as a Paramedic. The Emergency Medical Technician-Paramedic (EMT-P) is a person who works in the exciting, expanding field of Emergency Medical Services (EMS). This degree incorporates theoretical knowledge with extensive clinical application and experience. The advanced education and training in the care and transport of the critically injured can mean the difference between life and death. A.A.S. Degree graduates have enhanced potential for upward progression in the career of pre-hospital care. The curriculum includes a general education component that gives the student a well-rounded foundation of knowledge.

Helpful Background

Current EMT-B Certification is a prerequisite for this program. It is beneficial to have completed Anatomy/Physiology I before paramedic classes begin.

Career Opportunities

Career opportunities for paramedics include: private ambulance companies, hospitals, industry and city health agencies, fire departments and law enforcement agencies. Park services, ski patrols, and other groups in many countries often educate their personnel to become EMT’s or Paramedics as part of their duties. This prepares students to write the National Registry Paramedic Exam.

CREDITS REQUIRED FOR GRADUATION: 72

Prerequisites:

Emergency Medical Technician (EMT-Basic)
CPR Certification

FRESHMAN YEAR – FALL SEMESTER

<table>
<thead>
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<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>EMTP 1225 Pharmacology</td>
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<tr>
<td>EMTP 1420 Paramedic Medicine II</td>
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<td>EMTP 1520 Paramedic Medicine II</td>
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<tr>
<td>PSYC 2551 General Psychology</td>
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<tr>
<td>SOC 1555 Intro to Sociology</td>
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<tr>
<td>SOC 1565 Social Problems</td>
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Total Semester Credits: 15

SUMMER SESSION

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<tr>
<td>EMTP 1600 Critical Care Clinical</td>
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<tr>
<td>EMTP 1700 Support Services Clinical</td>
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<tr>
<td>EMTP 1800 ALS Ambulance</td>
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Total Session Credits: 8

SOPHOMORE YEAR – FALL SEMESTER

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<tr>
<td>EMTP 2020 Paramedic Medicine III</td>
<td>4</td>
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<tr>
<td>EMTP 2120 Hazardous Materials</td>
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<tr>
<td>EMTP 2220 Paramedic Medicine IV</td>
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<td>EMTP 2300 ACLS Provider</td>
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<td>EMTP 2380 AMLS Provider Course</td>
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<td>HLTH 1465 Drug Use &amp; Abuse</td>
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<tr>
<td>SPCH 1565 Interpersonal Communications</td>
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Total Semester Credits: 15

SOPHOMORE YEAR – SPRING SEMESTER

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<th>PROGRAM REQUIREMENTS</th>
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<tr>
<td>EMTP 2320 BLS/PHLS Advanced</td>
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<tr>
<td>EMTP 2340 PALS Provider</td>
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<tr>
<td>EMTP 2360 NRP Provider Course</td>
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<tr>
<td>EMTP 2400 Emergency Room Clinical</td>
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WELDING

AMERICAN WELDING SOCIETY (AWS)
Accredited Program

Entry-Level Welding Diploma/Advanced Welding Diploma

Students may take one or two years of the program depending on their needs and goals. This curriculum has been planned and approved by the Welding Advisory Committee consisting of representatives from the industry.

The first year emphasizes arc, gas, TIG, MIG, cutting, brazing and arc-air operations. Second year students will have the opportunity to specialize in advanced light metal fabrication, pipe, stainless steel, TIG and MIG applications and actual repair projects. Classroom instruction in both years will include math, blueprint reading, metallurgy and safety. The American Society of Mechanical Engineers and American Welding Society applications will be taught during the second year.

Students may graduate either as combination welders or with specialties in welding fabrication. Graduates will be better qualified to obtain employment in today’s demanding job market by completing both years of the program.

Helpful Background

Basic math, machine shop, drafting and metals courses, manual dexterity and a desire to learn will enable a person to successfully complete the program requirements.

Employment Opportunities

Nationwide opportunities exist for the employment of welders. Graduates find employment in small and large industrial fabrication shops, shipbuilding, plant and field equipment repair, the building trades and mining. Some graduates are self-employed doing repair and maintenance welding.

This training provides an excellent background for employment in trade or plant apprenticeship programs. Graduates are also employed with construction or equipment contractors, foundries, utilities and tank and transport manufacturers.

CREDITS REQUIRED FOR GRADUATION: 34 or 64

FRESHMAN YEAR – FALL SEMESTER

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<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>WELD 1221 Intro SMAW</td>
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<tr>
<td>WELD 1222 Basic SMAW Skills</td>
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<tr>
<td>WELD 1223 SMAW Low Hydrogen Skills</td>
<td>2</td>
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<tr>
<td>WELD 1224 SMAW Alloved Metals Skills</td>
<td>2</td>
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<tr>
<td>WELD 1231 Intro to Thermal Cutting Processes</td>
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<tr>
<td>WELD 1232 Oxy-Fuel Processes</td>
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<td>WELD 1233 Arc Cutting and Gouging Processes</td>
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<td>WELD 1255 Welding Mathematics &amp; Applications</td>
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<td>CSCI 1455 Intro to Computers</td>
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FRESHMAN YEAR – SPRING SEMESTER

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<td>WELD 12240 Intro to Welding Processes</td>
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<td>WELD 2241 Shielded Metal Arc Welding – Pipe</td>
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<td>WELD 2242 Advanced Blueprint Reading</td>
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<td>WELD 2244 Template Development I</td>
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<td>WELD 2245 Fabrication and Repair</td>
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<td>WELD 2275 Stainless Steel Welding</td>
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SOPHOMORE YEAR – FALL SEMESTER

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<td>WELD 2243 Flux Core Arc Welding II</td>
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CONTINUING EDUCATION/CUSTOMIZED TRAINING

The mission of Mesabi Range Community & Technical College customized training/continuing education departments is to provide credit and non-credit classes and workshops on and off-campus for professional advancement, retraining, upgrading of skills, and community services, as well as providing cultural forums and lifelong learning opportunities for all citizens.

Continuing Education/Community Service

Continuing Education provides life-long learning for community members and provides outreach services to rural Northeastern Minnesota. The Continuing Education Department values families and bases its programs on community resources and needs. It encourages and incorporates ideas from community members and works in cooperation with social services, public health, community action groups, and public education to best meet the educational needs of the communities.

Mesabi Range College’s Continuing Education Department Purposes/Goals

- Respond to community needs in the area of continuing education.
- Work in cooperation with social services, public health, community action groups, and public education to provide a wide variety of classes without duplication of services.
- Develop new program initiatives that promote life-long learning for children, youth, adults, and senior citizens.
- Provide educational opportunities that develop an awareness of cultural diversity.
- Respond to rural families and meet their educational needs through community outreach programming.
- Serve on community advisory boards to educate the public about the services provided by MRCTC.
- Provide courses that will assist individuals to meet self-sufficiency needs.
- Provide courses that increase parent and child care provider’s knowledge of child development and parenting skills.

Customized Training

The Customized Training Department is dedicated to helping business and industry increase effectiveness in their organization. Specialized courses focusing on professional development and personal growth are offered in formats adapted to employees’ needs and schedules. Courses are available in the location most convenient to the client. Customized training packages may result in the awarding of Professional Development Certificates and other certificate and/or degree programs. Contracted services are client-driven and may include organizational development, preparation and administration of work skills assessments, team building, strategic planning and customer service seminars. The customized training professionals assist businesses in identifying, initiating, and integrating any training needs.

Firefighter Training

The Firefighter Training Department offers a variety of courses, including structural and wildland firefighting, and rescue courses. Structural firefighting classes begin with the basic courses, also known as Firefighter I, which is approximately 96 hours in length. Advanced firefighting, Firefighter II, is also offered through this department and is approximately 24 hours in length. Both of these courses offer classroom and hands-on firefighter training, including live fire evolutions. Customized fire training is often developed to meet the needs of individual firefighters, individual fire departments, or for business and industrial fire brigades. These two courses (Firefighter I and Firefighter II) meet the minimum firefighting qualifications for most full-time departments in Minnesota.

Mesabi Range College also offers numerous wildland fire training courses. The entry-level courses, Basic Wildland Firefighting Training and Introduction to Wildland Fire Behavior, are offered every June at the MN Wildfire Academy held at the Itasca Community College in Grand Rapids,
along with advanced level wildland fire courses. Wildland firefighters from all over the country attend our wildland fire training courses at the academy, and instructors come from all over the country and have years of experience in firefighting and rescue operations.

**Emergency Medical Services**

Mesabi Range Community & Technical College offers a large number of Emergency Medical Services programs. The following certification classes are offered Fall and Spring semesters, as well as off-campus, scheduled at the clients’ request:

- First Responder (traditional or online)
- First Responder Refresher (traditional or – online)
- Emergency Medical Technician (EMT) – Basic
- Emergency Medical Technician (EMT) – Refresher
- Paramedic Refresher

Basic and advanced customized courses are also available, each developed to fit the clients’ needs for continuing education throughout the year.

**Safety and Health Training**

With the changing role of safety in the workplace, it is becoming extremely challenging for industry to keep current with these changes. Continual changes in Occupational Safety and Health legislation have made the role of safety programs and committees an important factor of day-to-day business. The mission of the Safety and Health Department is to provide quality training and consulting services to business and industry in the areas of Safety, Health, and Industrial Hygiene. Our services are established on an individual basis, tailored to fit each company’s needs.

The Safety and Health Department provides high quality safety and health services by:

- providing comprehensive and confidential services and training to clients based on assessed needs.
- working in cooperation with management to provide training on-site wherever possible.
- working with companies to develop and maintain written safety programs.

- assessing the workplace for potential hazards which could affect employee safety.
ACCOUNTING

ACCT 1646
Payroll Accounting
(2 Lec; 2 Cr)
This course covers the various state and federal laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports.

ACCT 2691
Principles of Accounting I
(4 Lec; 4 Cr)
This is a practical accounting course which stresses basic principles of accounting and reinforces those principles with illustrations, examples, and correlated problems. Topics given special emphasis are the accounting cycle, special journals, end of cycle procedures, payroll records and taxes, control systems, evaluations of current and fixed assets, accruals and deferrals, current liabilities, and an introduction to corporate accounting.

ACCT 2692
Principles of Accounting II
(4 Lec; 4 Cr)
This is a practical accounting course which stresses basic principles of accounting and reinforces those principles with illustrations, examples, and correlated problems. Topics given special emphasis are the accounting cycle, special journals, end of cycle procedures, payroll records and taxes, control systems, evaluations of current and fixed assets, accruals and deferrals, current liabilities, and an introduction to corporate accounting. This course builds on Fundamentals of Accounting I to include long-term liabilities, additional corporate accounting, financial statement analysis, and managerial accounting.
Prerequisite: ACCT 2691

ADMINISTRATIVE OFFICE SPECIALIST

ADOS 1225
Keyboarding I
(2 Lec; 1 Lab; 3 Cr)
An introductory course designed for development of basic keyboarding skills using the keyboard and word processing software. Speed and accuracy will be developed.

ADOS 1235
Integrated Software Applications
(2 Lec, 1 Lab; 3 Cr)
Through hands-on application, the student will acquire additional skill in the use of word processing, spreadsheets, database, and presentation graphics software, and learn how they integrate. Through the use of practical projects, the student will learn to solve integration-type application problems.

ADOS 1245
Presentation Graphics
(1 Lec, 1 Lab; 2 Cr)
This course covers the creation of a presentation using presentation graphics software. Students will create a professional presentation using a projection device attached to a personal computer. This course includes instruction in the use of digital cameras, scanning devices, insertion of external files, images and sound clips.

ADOS 1251
Word Processing I
(1 Lec, 1 Lab; 2 Cr)
An introductory course designed for development of basic/beginning word processing knowledge and skills using a full-featured word processing software. Knowledge of document formatting will be developed. Keyboarding speed and accuracy will continue to be developed.
Prerequisite: Keyboarding

ADOS 1252
Word Processing II
(1 Lec, 1 Lab; 2 Cr)
This course is a continuation of word processing with a focus on increased proficiency. Students will gain skills in the use of macros, merge, sort, templates, styles, and graphics.
Prerequisite: Word Processing I

ADOS 1255
General Transcription
(1 Lec, 1 Lab; 2 Cr)
This course focuses on providing the students with the skills needed to transcribe a variety of documents and helps the students to strengthen their grammar and punctuation skills.
ADOS 1261
Information Management Specialist I
(2 Lec, 1 Lab; 3 Cr)
This course focuses on indexing and filing, telephone techniques, use of calculators, calendaring and scheduling for the Administrative Office Specialist.

ADOS 1265
Medical Terminology
(1 Lec; 1 Cr)
This course covers introduction to word analysis by study of word roots, prefixes, and suffixes and abbreviations common to the medical profession. By mastering the techniques of combining word roots, prefixes, and suffixes, the medical secretary will be able to spell, pronounce, and locate in the medical dictionary words that she/he encounters in medical transcription. This class has a business focus with emphasis on the written aspect of medical office terminology.

ADOS 1266
Medical Office Management
(1 Lec, 1 Lab; 2 Cr)
This introductory course to medical office procedures covers medical office career opportunities, medical ethics and laws, telephone techniques, appointment scheduling, filing, patient records, mail, and fee collection.

ADOS 1267
Medical Machine Transcription
(1 Lec, 1 Lab; 2 Cr)
This course introduces medical machine transcription and covers transcription of dictated medical material into a variety of usable medical documents. Emphasis is on authentic forms and material, building speed and accuracy, proofreading, advanced editing, and correcting errors.

ADOS 1275
Legal Office Terminology
(1 Lec; 1 Cr)
The focus of this course is on legal terminology and theory. This course introduces students to the specialized vocabulary, legal procedures, and documents.

ADOS 1276
Legal Office Management
(1 Lec, 1 Lab; 2 Cr)
This course covers the integration of legal office tasks into the office setting and provides a background study of the branches of the government and the state and federal court systems. Topics include legal duties such as communicating with attorneys and clients, preparing legal correspondence and documents, preparing court documents, maintaining client records, scheduling appointments, legal timekeeping, and integrating these tasks into today's electronic office setting, as well as understanding court structures and related legal terminology.

ADOS 1277
Legal Transcription
(1 Lec, 1 Lab; 2 Cr)
This course covers transcription of dictated and rough-draft legal material into a variety of usable legal documents using word processing software. Emphasis will be on authentic forms and material, editing and proofreading, and correcting errors.

ADOS 1285
Spreadsheets I
(1 Lec; 1 Lab; 2 Cr)
This course covers the use of a computerized spreadsheet system for business applications. Topics include document creation, storage and retrieval, editing, printing.

ADOS 1286
Spreadsheets II
(1 Lec; 1 Lab; 2 Cr)
This course covers the advanced use of computerized spreadsheet software for business applications. Topics include: document editing, centering and merging cells, using data forms, auto-filtering and advanced filtering, and using various spreadsheet functions and formulas. Prerequisite: Spreadsheets I

ADOS 2690
Basic Accounting Concepts
(3 Lec; 3 Cr)
This course provides an introduction to accounting terms, concepts, and procedures. It focuses on the complete accounting cycle for a small business. Students will learn to analyze business transactions, determine what to debit or credit, record transactions in journals, post to the ledger, cash procedures, complete the accounting cycle and prepare financial reports.
ADOS 1291
Administrative Office Management
(1 Lec, 2 Lab; 2 Cr)
This course focuses on word processing software and projects dealing with workplace issues and ethics and how management will handle these issues in today’s office environment. A heavy emphasis will be placed on administrative office managerial skills.

ADOS 1269
Desktop Publishing
(2 Lec, 1 Lab; 3 Cr)
This course is designed to introduce students to the concepts, terminology, techniques, and applications of desktop publishing. Students will integrate word processing and graphics and manipulate text and images as they produce professional business documents.
Prerequisite: Word Processing I

ADOS 2275
Business Human Dynamics
(2 Lec; 2 Cr)
This course is designed for Administrative Office Specialist students to develop and demonstrate knowledge of human business relations in the areas of interpersonal relationships with co-workers, supervisors, and customers.

ADOS 2285
Database I
(1 Lec; 1 Lab; 2 Cr)
This course covers the use of an electronic database software for business applications. Topics include: creating a database, creating a table, creating a report, storage and retrieval, editing and printing.

ADOS 2286
Database II
(1 Lec; 1 Lab; 2 Cr)
This course expands the student’s knowledge in database software. It covers planning, creating, testing, and changing database files through development of database application, enhancing query applications through the use of Select and Crosstab activities, introducing and using Bound and Unbound Forms and Form Styles, and enhancing reports using Objects and Properties.

ANTHROPOLOGY

ANTH 1515
Introduction to Indian Studies
(3 Lec; 3 Cr)
Goals 5 & 7
This course examines Native American cultures from contact to present. Historical change, Native contribution, and present day concerns are addressed.

ANTH 1525
Introduction to Cultural Anthropology
(3 Lec; 3 Cr)
Goals 5 & 8
This course is a survey of cultural development from the beginning of human history to the present. Ancient, pre-literate, and modern societies are compared and contrasted, pointing out the differences and similarities used in solving the problems of human societies.
Prerequisite: Minimum CPT score of 72, or “C” or better in READ 0082

ANTH 1535
Human Origins
(3 Lec; 3 Cr)
Goals 5 & 10
This course will study the biological and cultural evolution and variation of the human species from its earliest hominid form to the development of written history. This course will examine the data provided through the interdisciplinary study of physical Anthropology including the mechanisms of evolution, archaeology and primatology.

ANTH 2555
Introduction to Archaeology
(3 Lec; 3 Cr)
Goals 5 & 10
A holistic introduction to the basic methods and theoretical approaches as well as the multidisciplinary nature of scientific Archaeology world wide. Archaeology has played an integral role and is a primary source in the examination and interpretation of humankind prehistorically and historically. Also examined are interpretive techniques and analysis. Archaeology and Native Americans, and Archaeology and endangered cultural resources.
Prerequisite: READ 1455
ART

ART 1521
Art History: Prehistoric to Pre-Renaissance
(3 Lec; 3 Cr)
Goal 6
This course is a survey of ancient art through 1400 (precursors to the Renaissance), with emphasis on the architecture, painting, and sculpture of the Western culture.

ART 1522
Art History: Early Renaissance to Modern
(3 Lec; 3 Cr)
Goal 6
This course is a survey of Western art from 1400 (early Renaissance) to the Modern period, with emphasis on the architecture, painting, and sculpture of the Western culture.

ART 1531
Drawing I
(1 Lec; 2 Studio; 3 Cr)
Goal 6
This course provides the fundamentals of representative freehand drawing with emphasis on expression and organization. There is experimentation with materials and techniques and development of perceptual skills. This course is intended for Art majors or a general audience.

ART 1532
Drawing II
(1 Lec; 2 Studio; 3 Cr)
Goal 6
Expanded study in representational freehand drawing and visual thinking. A variety of materials and subjects are explored to direct the student to alternative methods of expression and development of personal expression.
Prerequisite: Art 1531

ART 1541
Introduction to Art
(2 Lec; 1 Studio; 3 Cr)
Goal 6
This is a course that provides an opportunity to understand the fundamental nature of visual art. It is an orientation to art-related problems, techniques, and materials, as well as an introduction to the principles of two and three dimensional design for students with little or no experience in creative art.

ART 1545
Ceramics
(1 Lec; 2 Studio; 3 Cr)
Goal 6
This course offers an introduction to building pottery by hand and forming on the wheel, experimenting with decoration on clay body through texturing and on bisque-ware pottery with glazes.

ART 1551
Painting – Oil
(1 Lec; 2 Studio; 3 Cr)
Goal 6
This course is an orientation to painting in oils. It is a study and exploration of technique, development of sophistication, and concept development. This course is intended for the beginner.
Prerequisite: ART 1541

ART 1552
Painting II
(1 Lec; 2 Studio; 3 Cr)
Goal 6
Painting II involves continued development of basic foundations in painting with an emphasis on the development of individual interests and style. Student/instructor generated goals are implemented and the exploration of alternative avenues to expression, technique and methods is encouraged.

ART 1556
North American Indian Art
(3 Lec; 3 Cr)
Goal 6 & 7
This course is designed to increase awareness of North American Indian culture through the study of cultural diversity and the basic elements of creative arts. The course surveys North American Indian art from its pre-European influences to modern trends.

ART 1565
Basic Photography
(3 Lec; 3 Cr)
Goal 6
This course is designed for the beginning photographer and concentrates on the fundamentals of black and white photography, with a strong emphasis on artistic expressions via photographic composition. Students are required to spend a minimum of 20 hours in the darkroom, in addition to the classroom.
ART 1566
Digital Photography
(3 Lec; 3 Cr)
Goal 6
This course is designed for the beginning photographer and concentrates on digital fundamentals. It is an introduction to photography as a fine art. Strong emphasis is placed on artistic expression via composition and manipulation.

ART 2535
Painting-Watercolor
(1 Lec; 2 Studio; 3 Cr)
Goal 6
This course is an application of the watercolor medium with stress on composition and technique.
Prerequisite: ART 1541

MOBILE EQUIPMENT SERVICE TECHNICIAN
ATMX 1245
General Mobile Equipment Service
(1 Lec; 2 Lab; 3 Cr)
This course will help the student understand how mobile equipment is to be serviced and maintained. It will explain servicing programs, preventative maintenance and equipment pre-checks. It will help students understand why mobile and plant equipment needs to be maintained.

ATMX 1256
Engine Repair
(2 Lec; 2 Lab; 4 Cr)
This course includes the theory of operations, the cause and effect of different engine designs, and all repair and diagnostic procedures. Included are cylinder block, crankshaft, camshaft, valve and cylinder head inspection, and measurements.

ATMX 1257
Fuel Systems
(1 Lec; 1 Lab; 2 Cr)
This course is the study of fuels and fuel alternatives. Fuel delivery, storage systems, and basic emission control systems are also studied.

ATMX 1261
Power Transmission
(2 Lec; 3 Lab; 5 Cr)
Power transmission is the study of gear types and how they relate to torque. Also studied will be drive axle, clutch and drive line, four wheel drive systems, and all wheel drive. Manual transmission and transaxle diagnostic and repair procedures are also covered.

ATMX 2256
Basic Electrical Systems
(2 Lec; 2 Lab; 4 Cr)
This course covers basic electrical and electronic theory, wiring diagrams and electronic diagnosis of electrical systems.

ATMX 2262
Advanced Mobile Equipment Computers
(1 Lec; 3 Lab; 4 Cr)
This course will teach the student advanced computer control systems, lab scope, and OBD II diagnostic routine.

ATMX 2265
Shop Management
(1 Lec; 1 Cr)
This course provides instruction on employer/customer satisfaction, shop ethics, customer and employee expectations, selling, phone skills, shop etiquette, and telephone skills.

ATMX 1271
Brakes
(3 Lec; 2 Lab; 5 Cr)
This course includes the study of drum and disc brakes, power brake and emergency brake operation. Also covered are repair procedures and anti-lock brake operation.

ATMX 2276
Advanced Air-Conditioning/Heating
(1 Lec; 2 Lab; 3 Cr)
This course teaches inspection, service, repair of air conditioning and heating systems, theory, and on-vehicle diagnostics. The student will be certified to handle refrigerant after completion of this course.
BIOLOGY

BIOL 1455
Medical Terminology
(1 Lab; 1 Cr)
This is a self-paced program designed to enhance basic word-attack skills and medical vocabulary for students and workers in the allied health sciences field.

BIOL 1515
Biology of Women
(3 Lec; 3 Cr)
Goal 3 & 7
This is a theme-based course covering basic biological concepts that pertain to women. The course will examine the pivotal points in a woman’s life span from conception through menopause. Major topics covered include women’s health issues, both physical and emotional; gender differentiation; reproductive anatomy and physiology.

BIOL 1535
Introduction to Microbiology
(2 Lec; 1 Lab; 3 Cr)
Goal 3
This course is an introduction to the basic characteristics of microorganisms and their beneficial and detrimental effects. This study includes an introduction to the cell, viruses, bacteria, fungi, and protozoa. A special emphasis is placed on microorganisms of medical significance. Aseptic techniques are of major concern in the laboratory.

BIOL 1536
Contemporary Issues in Biology
(3 Lec; 1 Lab; 4 Cr)
Goals 3 & 10
This course will focus on current issues in biology. Basic biology concepts and lab demonstrations will be applied to current topics.
Prerequisite: CPT score of 77.5 or higher and MATH 0091

BIOL 1545
Human Biology I
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course teaches the biological principles for the non-science major. Concepts covered include cytology, reproduction, inheritance, immunology, anatomy, and physiology with a human emphasis.
Prerequisite: CPT score of 77.5 or higher and MATH 0091

BIOL 1546
Environmental Science
(3 Lec; 1 Lab; 4 Cr)
Goals 3 & 10
Offering an introduction to ecology and natural systems, this course includes the study of human impact on ecosystems including pollution, energy, and agriculture.
Prerequisite: CPT score of 77.5 or higher and MATH 0091

BIOL 1551
College Biology I
(4 Lec; 1 Lab; 5 Cr)
Goal 3
This course is a study of cell structure, function, and metabolism; principles of reproduction and inheritance; and a survey of the kingdoms Monera and Protista including taxonomy, morphology, physiology, ecology, and phylogeny.
Prerequisite: CPT score of 77.5 or higher (High School Algebra recommended)

BIOL 1552
College Biology II
(4 Lec; 1 Lab; 5 Cr)
Goal 3
This course is a survey of the plant, fungi, and animal kingdoms, including taxonomy, morphology, physiology, and ecology.
Prerequisite: CPT score of 77.5 or higher (High School Algebra recommended)

BIOL 2415
Pathophysiology
(3 Lec; 3 Cr)
This course provides a more in-depth study of human physiology, the resulting abnormal functioning of diseased organs, and integration of systems to compensate for the disease and to maintain homeostasis. Major topics include pathophysiological studies of cardiopulmonary, gastrointestinal, reproductive, renal, immunological, endocrine, and neurological disruptions.
Biology 2425
Human Biology II
(3 Lec; 1 Lab; 4 Cr)
This course, the second in a two course non-science major’s sequence, continues the introduction to the Human Body through a structure and systems approach. The course will include a review of cell biology with a more in-depth look into the structure and function of DNA. The course continues with the study of anatomy and physiology of additional organ systems not previously covered in Human Biology I. Molecular genetics is a focus and the organ systems covered include the urinary, reproductive, and nervous systems.

Biology 2451
Human Physiology I
(1 Lec; 1 Cr)
This course will offer students who are co-enrolled in Biology 2551 (Anatomy & Physiology I) a more thorough examination of the physiological topics covered through small group discussions, computer-based physiology simulations, and case studies. The examination of the physiologic processes will be primarily through clinical applications, making this course ideal for those students interested in a career in the health field. Students must be co-enrolled in A & P I.
Prerequisite: Co-requisites Biol 2551 and college level reading (Computer skills helpful)

Biology 2452
Human Physiology II
(1 Lec; 1 Cr)
This course will offer students who are co-enrolled in 2552 (Anatomy & Physiology II) a more thorough examination of the physiological topics covered through small group discussions, computer-based physiology simulations, and case studies. The examination of the physiologic process will be primarily through clinical applications, making this course ideal for those students interested in a career in the health field. Students must be co-enrolled in A & P II.
Prerequisite: Co-requisites Biol 2552 and college level reading (Computer skills helpful)

Biology 2535
Microbiology
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course encompasses a survey of bacteria, fungi, protozoa, viruses, and parasites, and how these microorganisms interact with the environment, emphasizing microbe/human interactions such as disease and immune response. The course is intended for science majors and allied health field majors.
Prerequisite: BIOL 1545, BIOL 1551, or BIOL 2551 (or instructor consent), college level reading, and High School Algebra or Math 0094

Biology 2551
Human Anatomy & Physiology I
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course introduces the structural and functional aspects of selected human body systems with a strong emphasis on lab dissections and study. It is designed for nursing, medical technology, and related health sciences majors, as well as students majoring in physical education and liberal arts.
Prerequisite: BIOL 1545 or BIOL 1551 (or instructor’s consent), and college level reading

Biology 2552
Human Anatomy & Physiology II
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course presents the structural and functional aspects of selected human body systems with a strong emphasis on lab experimentation. It includes study of those systems not covered in Human Anatomy and Physiology I.
Prerequisite: BIOL 2551 (or previous course BIOL 221) and college level reading
BUSINESS

BUS 1655
Introduction to Business
(3 Lec; 3 Cr)
This course examines the business system in the United States. Topics for discussion will include the management and organization of business, how products and services are produced and marketed, human resources and productivity, financial aspects of business, international business operations, and factors that will affect the future of business.

BUS 1657
Business Communication
(3 Lec; 3 Cr)
This course encompasses the theory of written business communication used to produce effective business letters, memorandums, reports, and resumes. Emphasis is placed on developing effective and positive communication through the written message. Various aspects of oral business communication are covered. Typing skill is strongly recommended.

BUS 1666
Principles of Marketing
(3 Lec; 3 Cr)
This course is an introductory study of marketing as an important element of our economy. Marketing institutions and their characteristics, basic marketing functions, price theory and methods, product decisions, marketing segmentation, and marketing communications as related to social and political issues will be examined.

BUS 2620
Business Internship
(2 Lab; 2 Cr)
This course offers the student an opportunity to apply the principles and skills learned in the classroom to gain practical work experience in an on-the-job training opportunity (arranged and supervised by the instructor). 
Prerequisite: Sophomore level or consent of instructor

BUS 2655
Legal Environment of Business
(3 Lec; 3 Cr)
This course presents consideration of the forms and functions of law in society with an emphasis on public law and regulation of business activities.

BUS 2675
Principles of Management
(3 Lec; 3 Cr)
This is a broad-based course in fundamentals as they apply to management as a career. This course includes the study of current philosophies and approaches to management as they apply to successful practice of this profession.

BUS 2677
Human Resource Management
(3 Lec; 3 Cr)
This course is a study of retail personnel management, personnel policies, motivation, insights into personal behavior, and the skills and personal habits necessary for better employer/employee communication. Recruitment, placement, and training of personnel are studied. Legislation as it affects management is also included.
CARPENTRY

CARP 1221
Blueprint Reading and Estimating
(1 Lec; 2 Lab; 3 Cr)
This course covers the basics of reading and drawing blueprints for residential construction. Estimating the material requirements and making up material lists is also covered.

CARP 1222
Planning and Estimating
(1 Lec; 1 Cr)
This course covers the planning, coordination, scheduling and estimating needed to make a construction project run efficiently.
Prerequisite: CARP 1221

CARP 1225
Hand and Power Tools
(1 Lec; 1 Lab; 2 Cr)
This course covers the study of the nomenclature and proper use of hand, portable and stationary power tools. Each student will perform exercises to bring them to a level of competency acceptable to the trade.

CARP 1226
Math for Carpenters
(1 Lec; 1 Lab; 2 Cr)
This course covers the mathematics commonly used in the carpentry trade. Material covered will include: fractions, percentages, linear measures, area, volume, proportions, powers and roots.

CARP 1227
Introduction to Building Codes
(1 Lec; 1 Cr)
This course covers the Introduction to Building Codes. It includes the purpose for codes, scope of Building Codes, and how to use the IBC code book.

CARP 1228
Cabinet Making
(2 Lab; 2 Cr)
This course covers the theory and actual construction of cabinets with drawers, doors, shelves, etc. The student will learn how to properly install and trim plastic laminates for counter tops.
Prerequisite: CARP 1221 and CARP 1225

CARP 1229
Concrete
(1 Lab; 1 Cr)
This course includes actual “hands on” experience of forming, pouring and finishing a slab.

CARP 1231
Principles of Carpentry I-A Theory
(2 Lec; 2 Cr)
This course is designed to make the student aware of the dangers involved in the trade. The student will study safe work habits and basic First Aid. The theory portion of preparation of a job site for the construction of a building is taught. Also covered are the fundamentals of footings, foundation walls, floor, wall, ceiling and roofing framing. Roofing material will be discussed along with all framing material.

CARP 1232
Principles of Carpentry I-B
(3 Lec; 3 Cr)
This course includes types, methods of installation and finishing of drywall. Various types of windows and doors, their installation and technique to finish them are also studied. Exterior finish, insulation, finish flooring, stair building, finish carpentry, etc. are also topics to be covered.
Prerequisite: CARP 1231

CARP 1241
Principles of Carpentry I-A Lab
(5 Lab; 5 Cr)
This course covers the lab portion of preparation of a job site for the construction of a building and teaches the fundamentals of footings and foundation walls. Also covered in this course are the types of floor, wall, ceiling, roof framing, and the materials associated with framing.
Prerequisite: CARP 1221 and CARP 1225
CARP 1242
Principles of Carpentry I-B
Lab
(6 Lab; 6 Cr)
This course includes actual “hands on” experience of hanging sheet rock, installing doors and windows, installing insulation, trim work, siding and stair building. This is accomplished through exercises, construction of small buildings and an on-site garage project.
Prerequisite: CARP 1241

CARP 2255
Foundations, Concrete and Site Layout
(1 Lec; 3 Lab; 4 Cr)
This course will focus on constructing a house foundation according to blueprints of a house project. Laying and finishing concrete floors, slabs and sidewalks, and developing building layouts for wall lines, elevations, and angles according to house blueprints is also covered.

CARP 2256
Blueprint Reading and Codes
(1 Lec; 1 Lab; 2 Cr)
This course focuses on the language of blueprints and applies this knowledge to an actual project. Students will be working with building inspectors and building codes.

CARP 2257
Scaffolding, Ladders and Power Tools
(1 Lab; 1 Cr)
This course will introduce the students to residential and commercial scaffolding and ladders. Students will be able to safely erect and use scaffolding and ladders. It will also enable the students to use skills developed in the lab and apply them to construction on the job site.

CARP 2258
Floor Framing
(1 Lab; 1 Cr)
This course covers the different types, materials and application of floor framing.
Prerequisite: Carpentry I or one year of carpentry experience

CARP 2259
Wall Framing
(1 Lec; 1 Lab; 2 Cr)
This course will focus on researching new materials, choosing the best materials and applying the materials correctly. It also covers wall framing.
Prerequisite: First year carpentry courses or one year of carpentry experience

CARP 2265
Roof Framing
(1 Lec; 1 Lab; 2 Cr)
This course covers new construction roof framing of all styles.
Prerequisite: First year carpentry courses or one year of carpentry experience

CARP 2266
Roof Coverings and Safety
(1 Lec; 1 Lab; 2 Cr)
This course will focus on enabling students to finish roof exteriors properly, safely and neatly. It also covers safety of construction equipment from stationary tools to heavy equipment.
Prerequisite: First year of carpentry courses or one year of carpentry experience

CARP 2275
Exterior Finishing
(2 Lab; 2 Cr)
This course covers exterior wall finishes, cornice and application.
Prerequisite: Carpentry I or one year of carpentry work experience

CARP 2276
Remodeling
(1 Lec; 1 Lab; 2 Cr)
This course covers remodeling of new and old structures.
Prerequisite: Carpentry I or one year of carpentry experience
CARP 2277
Insulation and Drywall
(1 Lec; 2 Lab; 3 Cr)
This course will focus on calculating R-Value, installing vapor barriers, ventilation and insulation. It also covers sheetrock, taping and interior sheeting.
Prerequisite: First year carpentry courses or one year of carpentry experience

CARP 2278
Small Projects and Estimating
(1 Lec; 1 Cr)
This course covers materials and cost estimating.
Prerequisite: First year carpentry courses or one year of carpentry experience

CARP 2285
Interior Finishing
(1 Lec; 1 Lab; 2 Cr)
This course covers interior finishing of mouldings, trim, doors, windows and suspended ceilings.
Prerequisite: Carpentry I or one year of carpentry experience

CARP 2286
Cabinets, Floor Covering and Stair Finishing
(1 Lec; 3 Lab; 4 Cr)
This course will focus on designing, layout and installing cabinets. It also covers measuring, installing and understanding the use of the different types of floor coverings and advanced stair building.
Prerequisite: First year of carpentry courses or one year of carpentry experience

CHEMICAL DEPENDENCY SPECIALIST

CDEP 1255
Psychology of Addiction
(3 Lec; 3 Cr)
This course is a study of addictive systems and practical approaches to intervening in these systems. Emphasis will be placed on symptomology, therapeutic approaches and treatment design.
Prerequisite: College level reading and writing

CDEP 1261
Chemical Dependency Theories
(2 Lec; 2 Cr)
This course will examine the various theories of addiction and modalities of treatment. Emphasis will be placed on effects of addiction on relationships, family systems, and business and industry. The "Minnesota Model of Addiction," both theory and treatment, will be a major thrust of the course.
Prerequisite: College level reading and writing

CDEP 2240
Chemical Dependency Internship
(5 Lab; 5 Cr)*
The course is designed to equip the student with the intellectual tools and core counseling skills necessary to become an effective program counselor. It is during this internship phase that the student has the opportunity to practice and further develop these skills under the supervision of a licensed chemical dependency counselor at an approved internship site. A weekly seminar to discuss the field experience is also required. Five credits may be taken in each of two sequential semesters totaling ten credits (requiring 880 total hours).
Prerequisite: Advanced standing in Human Services/Chemical Dependency Specialist program (or instructor’s consent), and college level reading and writing

CDEP 2262
Chemical Dependency Assessment
(2 Lec; 2 Cr)
This course is a study of Chemical Dependency Assessment. Emphasis will be placed on practical application and practice in the use of Chemical Dependency Assessment skills.
Prerequisite: CDEP 1255, CDEP 1261, HLTH 1465, college level reading and writing
CDEP 2263
Treatment Procedures
(4 Lec; 4 Cr)
This course is designed to give students an operational understanding of treatment procedures in the different fields of addiction. Students will be given an opportunity to incorporate practical procedures within the theoretical framework of service delivery throughout the continuum of care. This course is to be taken as the final course in Chemical Dependency Option Program.
Prerequisite: CDEP 1255, CDEP 1261, CDEP 2262, HLTH 1465 – College level reading and writing

CHEMISTRY

CHEM 1511
Fundamentals of Chemistry
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course is a presentation of the principles of inorganic chemistry, amplified with relevant applications. Atomic structure, periodic classification of the elements, chemical bonding, matter and energy changes, solutions, electronic structure, equilibrium, and acid-base theory are among the topics covered. This course is designed for students who are not science majors. This course is recommended for elementary education, various allied health field majors, and as a preparation for Chem 1522.
Prerequisite: MATH 0093

CHEM 1512
Fundamentals of Organic Chemistry
(3 Lec; 1 Lab; 4 Cr)
Goal 3
This course is designed as a survey of organic chemistry for students in science-related fields who need only one semester of organic chemistry. Emphasis is on functional groups, nomenclature, reactions, and applications.
Prerequisite: CHEM 1511 or CHEM 1522

CHEM 1522
General Chemistry I
(4 Lec; 1 Lab; 5 Cr)
Goal 3
This course is an in-depth study of the principles of chemistry with emphasis on atomic and molecular structure, periodic relationships, stoichiometry, structural concepts, bonding, the geometry of molecules, and gaseous, liquid, and solid states.
Prerequisite: High School Chemistry or CHEM 1511, and MATH 0093

CHEM 1523
General Chemistry II
(4 Lec; 1 Lab; 5 Cr)
Goal 3
This course is an in-depth study of the principles of chemistry with emphasis on energetics, theory of solutions, kinetics, equilibrium, acids and bases, aqueous equilibria, chemistry of selected cations and anions, environmental concerns, electrochemistry, nuclear chemistry, and coordination compounds.
Prerequisite: CHEM 1522

CHEM 2512
Organic Chemistry I
(4 Lec; 1 Lab; 5 Cr)
This course in chemistry is a study of aliphatic and aromatic hydrocarbons with emphasis on reaction mechanisms and the characteristics of numerous functional groups.
Prerequisite: CHEM 1522

CHEM 2513
Organic Chemistry II
(4 Lec; 1 Lab; 5 Cr)
A continuation in the study of aliphatic and aromatic hydrocarbons with emphasis on reaction mechanisms and the characteristics of numerous functional groups.
Prerequisite: CHEM 2512
COMPUTER SCIENCE

CSCI 1455
Introduction to Computers
(3 Lec; 3 Cr)
This is an introductory course designed to give students a general knowledge of personal computers. It includes fundamental concepts on the design and uses of computers and opportunities for hands-on experience. No previous computer experience is necessary or assumed.
Prerequisite: Assumed keyboarding skills

CSCI 1466
Introduction to Programming – Fortran
(2 Lec; 1 Lab; 3 Cr)
This course introduces program structure and statements, logical and arithmetic operators, elements of structured programming, transfer of control, formatted and unformatted input/output, DO loops, multi-dimensional arrays, function and subroutine sub-programs, and input/output to external files.

CSCI 1469
Introduction to Assembly Language Programming
(3 Lec; 3 Cr)
Goal 4
This course is an introduction to computer organization and structure, machine language, addressing techniques, internal representation of data, and low-level operating system interfacing.
Prerequisite: Two programming courses or consent of instructor

CSCI 1484
Introduction to Computer Operating Systems
(1 Lec, 1 Lab; 2 Cr)
This course introduces the student to the fundamentals of Windows software, working on and modifying Windows desktop; file-documentation folder management in Explorer, customizing a computer, advanced document management and communication with other computers.
Prerequisite: CSCI 1466 or consent of instructor

CSCI 1485
Computer Operating Systems
(1 Lec, 1 Lab; 2 Cr)
This course introduces the student to the fundamentals of DOS and Windows software, working on and modifying the Windows desktop, file-documentation folder management in Explorer, customizing your computer, advanced document management and communication with other computers. It also covers MS-DOS essentials.
Prerequisites: Completion or concurrent enrollment in CSCI 1455 or consent of instructor

CSCI 1491
Visual BASIC I
(3 Lec; 3 Cr)
This course provides an Introduction to MS-Windows; event driven and object-oriented programming, toolboxes, help; visual BASIC (VB) environment; forms and properties; form procedures, printing, etc.; communication and control; managing controls, input/output and messages; components of BASIC language; window, variables, data types, declarations, operators, writing VB code, decision-making and loops, formatting, functions and procedures, files; application development; graphics and animation, file and data access including business applications.
Prerequisite: CSCI 1466 or consent of instructor

CSCI 2461
Java Programming
(4 Lec; 4 Cr)
This course provides an introductory overview of the powerful Java programming language including its main features and advanced constructs. The course covers programming fundamentals, compilation, and execution of Java programs and Java applets.
Prerequisite: Two programming courses or consent of instructor

CSCI 2471
C Language
(3 Lec; 3 Cr)
This course is a study of the fundamentals of “C” language programming, data types and declarations, assignments, addresses, and pointers. This course includes conditional execution, flow control, functions and modularity, and complex data types; arrays, strings and structures, and data files.
Prerequisite: CSCI 1466 or consent of the instructor
CSCI 2492
Visual BASIC II
(3 Lec; 3 Cr)
This is the second course in Visual BASIC. The primary emphasis in this course is teaching students to create client applications that access and maintain data from a database. The students will look at Visual BASIC user defined classes, Data files, grids, validation, sorting, drag and drop, and graphics.  
Prerequisite: CSCI 1491

ECONOMICS

ECON 1555
Survey of Economics
(3 Lec; 3 Cr)
Goals 5 & 8
This course is an introduction to economics including information on supply and demand, the consumer's role, the producer's role, impact of government, money and banking, and global trade.  
Prerequisite: Reading intensive

ECON 1556
Principles of Economics: Micro
(3 Lec; 3 Cr)
Goals 5 & 8
This course is an introduction to economics, including information on supply and demand, the consumer's role, the producer's role, impact of government, money and banking, and global trade.  
Prerequisite: Good command of elementary Algebra, reading intensive

ECON 1557
Principles of Economics: Macro
(3 Lec; 3 Cr)
Goals 5 & 8
This course is a study of the economy as a whole, including national income analysis, fiscal policy, money and banking, monetary policy, and international trade.  
Prerequisite: Good command of elementary Algebra, reading intensive

EDUCATIONAL ASSISTANT

EDAS 1202
Guiding Children's Development & Behavior I
(3 Lec; 3 Cr)
Students will develop a basic knowledge and understanding of child development with an intensive focus on children, birth to eight years of age. Redirecting children's behavior and other guidance techniques will be presented. Students will learn how to use indoor and outdoor space effectively in order to meet children's growing developmental needs.

EDAS 1204
Understanding Family Systems & Family Strengths
(1 Lec; 1 Cr)
Students will build a strong understanding of families as a mutual support system and lay the foundation for the collaborative process of family partnerships.

EDAS 1206
Communicating Constructively with Diverse Families
(1 Lec; 1 Cr)
Students will learn a relationship-based approach which requires a thorough study in communication strategies. Students will learn how to build mutual trust and collaborative partnerships with families.

EDAS 1208
Guiding Children's Development II (School Age)
(3 Lec; 3 Cr)
Students will develop a basic knowledge and understanding of child development with an intensive focus on ages eight through adolescence. Social skill development and strategies for managing behavior will be addressed. Students will learn how to use space and materials to develop a positive environment for all children and youth.

EDAS 1210
Historical & Legal Foundations of Education
(3 Lec; 3 Cr)
This course is designed to provide knowledge and understanding about the legal and historical foundations of education. It defines the necessary roles and responsibilities of parents, children, youth, educators and educational systems. Students will develop a practical knowledge of relevant laws, rules, regulations, policies and procedures that are necessary to perform their role as an educational assistant.
EDAS 1212  
Environments for Learning  
(3 Lec; 3 Cr)  
Students will develop a basic understanding of a child’s physical, social-emotional and cognitive development. Students will use their knowledge of child development to create a stimulating learning environment that incorporates developmentally appropriate activities, materials and equipment.

EDAS 1214  
Supporting Learners  
(3 Lec; 3 Cr)  
This course will explore the physiological, emotional and cultural background of learners. Brain based, Learning Style and Multiple Intelligence theories will be addressed. A variety of teaching strategies will be introduced.

EDAS 1216  
The Education Team  
(2 Lec; 2 Cr)  
This course is designed to assist educators and assistants in understanding the value of the education team. It will address the roles and responsibilities of teams, expectations of teams, dynamics of teams and measuring team effectiveness.

EDAS 1218  
Health, Safety & Nutrition  
(3 Lec; 3 Cr)  
This course provides focused training in recognizing and caring for child breathing and cardiac emergencies and basic first aid. Environmental health and safety is covered with an emphasis on prevention. A basic nutrition component is integrated which provides a basis for students to understand appropriate food handling and sanitation.

EDAS 2202  
The Exceptional Learner  
(3 Lec; 3 Cr)  
This course provides students with the background information necessary in order to understand the field of special needs education. It explores pragmatic strategies to make accommodations necessary in the classroom.

EDAS 2204  
Assessment and Evaluation  
(1 Lec; 1 Cr)  
This course is designed to inform educators and assistants about the process of collecting, analyzing and interpreting information related to the student in order to best meet his/her individual education goals and needs.

EDAS 2206  
Child Abuse & Neglect  
(2 Lec; 2 Cr)  
This course will provide students with the necessary tools to assist them in recognizing child abuse and neglect. The course will address the reporting process and what it means to be a mandated reporter in the state of Minnesota. Students will learn about helpful community resources and learn how to access them.

EDAS 2208  
Assisting with Language and Literacy  
(3 Lec; 3 Cr)  
This course will explore the development of language and literacy for children birth to adolescence. Instructional strategies for developing an effective reading program will be addressed.

EDAS 2210  
The Art of Home Visiting  
(3 Lec; 3 Cr)  
This course is designed to train human service workers, educators, and individuals who provide services in a family’s home in the philosophy of using a strength-based approach to reaching families.

EDAS 2212  
Assisting with Math and Science  
(3 Lec; 3 Cr)  
This course will provide students with a basic understanding of teaching methods used in the areas of math and science.

EDAS 2214  
Professionalism for Educators  
(2 Lec; 2 Cr)  
This course provides necessary information for preparing paraprofessionals in the areas of ethical standards, confidentiality and professionalism in the workplace.
EDUCATION

EDUC 1515
Foundational Issues in Early Childhood
(3 Lec; 3 Cr)
This course will explore historical and cultural foundations of early childhood programs while examining theoretical models and strategies that will enable students to develop positive interactions with young children.

EDUC 2516
Early Childhood Creative Expressions
(3 Lec; 3 Cr)
This course provides students with hands-on opportunities to explore the creative processes involved in working with young children. Students will learn how to adapt activities in the areas of art, music, creative drama, and movement to enhance learning and foster creativity.

EDUC 2515
Early School Years
(3 Lec; 3 Cr)
This course will demonstrate how theoretical, historical and cultural foundations of early childhood education influence the creation of a developmentally appropriate classroom. Students will work intensively with early childhood professionals to develop an integrated unit plan. This will then be used while participating in a Kindergarten placement experience.

EDUC 1425
Introduction to Elementary Education
(3 Lec; 3 Cr)
This course provides students the opportunity to learn about elementary teaching theory and practice through observation, lectures, cooperative learning, peer reviews and elementary classroom experiences.

EDUC 1516
Human Diversity with Practicum
(3 Lec; 3 Cr)
This course will provide students with a basic understanding of cultural diversity and its implications for educators. Topics include culture, race, ethnicity, class, gender, language, and disability. Students will be required to complete a practicum of 30 hours in an appropriate setting.

EDUC 1516
Human Diversity with Practicum
(3 Lec; 3 Cr)
This course will provide education students with the skills necessary to select developmentally appropriate books and non-books for young children. Additionally, a whole language approach will be used as a progressive means of integrating children’s literature into the existing curriculum.

EDUC 1435
Methods of Teaching Early Childhood Literature
(4 Lec; 4 Cr)
This course provides education students with the skills necessary to select developmentally appropriate books and non-books for young children. Additionally, a whole language approach will be used as a progressive means of integrating children’s literature into the existing curriculum.

ELECTRICAL AND INDUSTRIAL AUTOMATION TECHNOLOGY

EIAT 1225
Electrical & Industrial Automation Projects
(2 to 8 Cr)
This course is designed to cover learning related to special assignments, independent study, internships and industrial work experience directly related to the curriculum objectives of the Electrical and Industrial Automation Technology program. The course content will be determined on an individual basis dependent on student needs and departmental requirements. The EIAT department, in coordination with the student, will design an individual plan that meets specified objectives.

EIAT 1233
Introduction to Solid State Electronics
(1 Lec; 3 Lab; 4 Cr)
This offering is designed as a foundational course for those entering electrical maintenance/engineering related fields. Basic solid state theory is studied with a focus on semiconductor material, PN junction devices, discrete and integrated semiconductor applications, schematic symbols, device testing, and proper usage of tools and test equipment.

EIAT 1243
Introduction to Digital Electronics
(1 Lec; 2 Lab; 3 Cr)
This offering is designed as a foundational course for those entering electrical maintenance/engineering related fields. Basic digital concepts are studied with a focus on basic logic gates, numbering systems, combinational logic circuits, circuit simplifications, integrated logic circuits, schematic symbols, device testing, and the mathematical and practical analysis of circuits from a troubleshooting perspective. Lab safety and safe, proper use of tools and test equipment is emphasized.
EIAT 1244
Industrial Pneumatics
(2 Lab; 2 Cr)
This course covers the general fundamentals of fluid power concentrating in pneumatic theory, equipment, and systems. The course covers symbols used to identify pneumatic control devices/actuators and the interpretation/development of schematic diagrams. The course focuses on the identification, operation, and configuration of component level devices. Application based learning is provided through lab exercises that demonstrate the operation of devices, electrical-mechanical interfacing, and the configuration of pneumatics components within industrial machine control systems.

EIAT 1251
Programmable Logic Controllers
(1 Lec; 2 Lab; 3 Cr)
This course is an introductory class covering the installation, operation, and programming of industrial programmable controllers (PLC’s). Lecture reviews a variety of PLC types/manufacturers and the components of PLC systems. Lab exercises provide hands-on activities demonstrating the practical use of PLCs in industrial control.

EIAT 1253
Introduction to DC/AC Electronics
(1 Lec; 3 Lab; 4 Cr)
This offering is designed as a foundational course for those entering electrical maintenance/engineering related fields. Basic DC/AC theory is studied with a focus on electrical quantities, circuit components, schematic symbols, measurement, and the mathematical and practical analysis of series, parallel, and series/parallel circuits from a troubleshooting perspective. Lab safety and the safe and proper use of tools and test equipment are emphasized.

EIAT 1255
Electrical For Operators
(2 Lec; 1 Lab; 3 Cr)
This course provides a general knowledge of industrial electrical systems. It encompasses topics starting with basic electrical theory and continues with electrical safety, electrical distribution systems, and motor control. The course focus is on practical knowledge needed by multiple craft and operation personnel.

EIAT 1256
Process Control for Operators
(2 Lec; 2 Lab; 4 Cr)
The focus will be understanding quality, process control (including statistical process control), manufacturing processes and instrumentation/measuring. A focus will be placed on successful manufacturing concepts, such as those used in the Toyota Production System: continuous improvement, statistical tools, lean manufacturing concepts, etc. Hands-on labs will accompany the lecture to demonstrate and reinforce topics and concepts presented in lecture.

EIAT 1260
(1 Lec; 1 Cr)
Electrical Safety
This course is designed to familiarize the student with the safety practices and procedures applied in the installation and maintenance of electrical systems and equipment. Instruction includes the identification of the hazards associated with working on electrical equipment and distribution systems, identification and use of Personal Protection Equipment (PPE) and safe and proper use of test equipment. In addition, the course presents information on general industrial safety practices such as lock-out-tag-out, material safety data sheets (MSDS) and confined space identification.

EIAT 1265
National Electrical Code
(2 Lec; 2 Cr)
This course is an introductory course to the National Electric Code. This course covers the layout of the code book, definitions of terminology used in the code, and a review of code sections related to industrial writing. This course provides practice in locating and applying articles from the code to solve specific electrical design problems and/or calculation parameters needed for the sizing and selection of equipment and material.

EIAT 1266
Industrial Motor Control
(2 Lec; 4 Lab; 6 Cr)
This course covers the design, wiring, and operation of AC motor circuits from the power distribution system or course to the final control circuit and motor. You will be prepared to install, troubleshoot, and maintain equipment associated with motors and motor control. Elements include three-phase power, transformers, control devices, motor starters, motor speed control, and motors. Students should possess knowledge of basic electricity and electronic fundamentals.
Prerequisites: EIAT 1233, EIAT 1243, EIAT 1244, EIAT 1253, EIAT 1295, or instructor’s consent
EIAT 1275
Introduction to Process Control
(1 Lec; 1 Lab; 2 Cr)
This course is designed as an introduction to industrial process control. The course will cover basic definitions, types of control, symbols and prints, instruments used in control, and elementary control loop design. The course will identify the duties and tasks performed by instrumentation technicians. The course is a prerequisite to additional instrumentation courses offered by Mesabi Range College.

EIAT 1276
Electrical/Mechanical Tools, Equipment, and Systems
(2 Lab; 2 Cr)
This course is designed to familiarize the student with tools, materials, and procedures used in the installation and maintenance of electrical systems and equipment. Instruction includes the safe and proper application of specialized tools and test equipment used in electrical work. The student will gain a working knowledge of the specifications, applications, and standards related to material used in electrical distribution. The course examines the mechanical applications and procedures used in the installation of electrical equipment and systems.

EIAT 1295
Basic Soldering
(1 Lab; 1 Cr)
This offering is designed as a foundational course for those entering electrical maintenance/engineering related fields. Basic soldering concepts are studied with a focus on materials, equipment, and various soldering processes. Lab safety and the safe and proper use of tools and test equipment are emphasized.

EIAT 2235
Industrial Data Communications
(1 Lec; 2 Lab; 3 Cr)
This offering is designed to provide the student with a fundamental knowledge of industrial data transmission. Basic standards and protocols will be studied with an emphasis on Ethernet, DH+, Modbus, and Fieldbus. Lab safety and the safe and proper use of tools and test equipment are emphasized.

EIAT 2245
Industrial PC Applications
(1 Lec; 2 Lab; 3 Cr)
This offering is designed to provide the student with a fundamental knowledge of industrial personal computer based applications. PC based applications related to industrial controls will be studied with an emphasis on project/device documentation, data management, and SCADA. Lab safety and the safe and proper use of tools and test equipment are emphasized.

EIAT 2252
Advanced Programmable Logic Controllers
(1 Lec; 3 Lab; 4 Cr)
This course is an advanced PLC course designed for students who have previous PLC programming experience or have completed the EIAT 1251 Programmable Logic Controls course. The course covers advanced programming instructions such as sequencers, analog I/O, and PID control. The course develops a students understanding of the PLC's file structure and organization of user programs. In addition the course introduces the student to programming languages, terminology, and standards set by the IEC (International Electrotechnical Commission) Standard IEC 1131-3. In addition, the course covers communication protocol and methods designed to send and receive data between multiple PLCs. Lab exercises provide hands-on activities demonstrating the practical application of plant wide control systems.

EIAT 2265
Electrical Control of Machines
(1 Lec; 1 Lab; 2 Cr)
This course covers the integration of sensors, motion control equipment, and programmable controllers used in modern control systems. The course includes the expanding use of drive systems for positioning and movement of mechanical systems and hardware. The course also includes the application of controller I/O interfacing to fluid power and electrical-mechanical devices. Topics covered will include machine power control, control systems configuration, and machine environments utilized in complex control situations.

Prerequisites: EIAT 1251, EIAT 1266, and EIAT 1244, or instructor's consent
EIAT 2266  
**Temperature, Strain, and Analytical Instruments**  
(1 Lec; 2 Lab; 3 Cr)  
This course is designed to encompass three independent areas of instrumentation, utilizing measurement methods that are similar in design and theory. The course covers the terminology, methods, and application of temperature, strain, and analytical measurement. The course provides the knowledge and skills required for operational understanding, proper installation, and accurate calibration of the primary elements and transducers used in these measurement areas.  
Prerequisites: EIAT 1233, EIAT 1243, EIAT 1253, & EIAT 1275, or instructor’s consent

EIAT 2267  
**Pressure, Flow, and Level Instruments**  
(1 Lec; 2 Lab; 3 Cr)  
This course is designed to encompass three related areas of industrial instrumentation measurement. The course covers the terminology, mathematical relationships, and physical properties involved with the measurement of pressure, level, and flow. The course provides the knowledge and skills required for operational understanding, proper installation, and accurate calibration of the primary elements and transducers used in these measurement areas.  
Prerequisites: EIAT 1233, EIAT 1243, EIAT 1253, and EIAT 1275, or instructor’s consent

EIAT 2275  
**Robotic Work Cells**  
(2 Lab; 2 Cr)  
This course covers basic industrial robotic principles through applied theory and practical lab applications. The course will cover the individual components and system interfacing it takes to make up a total robotic work cell. The construction, programming, and operation involved with industrial robots are presented through hands-on exercises. Lab exercises will require integrating pneumatic and NC robots, position sensing, and motion control into work cells overseen by programmable logic controllers. Application of work cell equipment will require in-depth review of manufacturer’s operating manuals and documentation.

EIAT 2276  
**Automated Industrial Control**  
(4 Lab; 4 Cr)  
This course covers advanced automated control for medium and large industrial manufacturing and process control systems. The topic areas include PC and PLC control system hardware/software, communication links and SCADA (HMI and MMI) interfaces. The course is designed to provide students with hands-on experience in the application and configuration required to interface industrial control software to machine and process hardware. Components of lab assignments include working with digital and analog I/O, high level control language, process PID control, motion control, documentation, diagnostics, and plant-wide communication capabilities. The student should have previous experience with Windows NT and Programmable Controllers. The labs will include robot work cells and/or process control applications.  
Prerequisites: EIAT 1251, EIAT 1266, EIAT 1275, and CSCI 1455, or instructor’s consent

EIAT 2277  
**Controllers and Control Loops**  
(1 Lec; 1 Lab; 2 Cr)  
This course covers the core of industrial process control, control loops, and controllers. The course defines the components, configuration, installation, and I/O calibration of control loops. Analysis of control modes and algorithms for PID control are studied and practiced in a lecture/lab environment. Control mode design and system architecture completes the study.  
Prerequisites: EIAT 1233, EIAT 1243, EIAT 1253, and EIAT 1275, or instructor’s consent

EIAT 2295  
**Computer Aided Design**  
(2 Lab; 2 Cr)  
This course covers the fundamentals of computer-aided drafting. Basic drawing commands are covered and understanding is reinforced through hands-on drawing exercises. The content will be focused on drawing electronic, electrical, loop sheets, and P&ID diagrams. The proper procedures for file management and printing/plotting of completed work are also covered.
EMERGENCY MEDICAL SERVICES

EMSV 1488
Heartsaver First Aid with CPR and AED
(1 Lec; 1 Cr)
This course is designed to meet the needs of those with limited or no medical training seeking the knowledge, or need a credential, for First Aid and CPR (cardio-pulmonary resuscitation) with AED (automatic external defibrillator). This course is for laypeople or those who have the duty to respond in the workplace (non-healthcare professionals or those not seeking employment in the healthcare profession), who would like to have a well-rounded education and certification in First Aid, CPR and AED.

EMSV 1656
Emergency Medical Technician (EMT Basic)
(6 Lec; 6 Cr)
The Emergency Medical Technician’s course trains participants to be a part of the nation’s Emergency Medical System. Emphasis includes scene control, patient assessment, triage, use of standard equipment, transport concerns, legalities, and physiological theory related to medical and trauma situations. EMT Certification requires hospital and ambulance time, skill test competencies, 70% passing on all sections of the National Registry Exam, and fee payments.
Prerequisites: Age 18 when testing; ability to lift and carry (with a partner) up to 225 lb. people; communication skills; ability to apply equipment used in the field; current CPR card (Health Care Provider or Professional Rescuer). Anyone with a felony record needs to have clearance to test and be re-certified.
Prerequisites: READ 0092 (or previous course READ 0095); ENGL 0092 (or previous course ENGL 095)

EMSV 1658
First Responder
(2 Lec; 2 Cr)
The First Responder course is designed to train volunteers and professionals to deal with trauma and medical emergencies. Emphasis includes assessing the scene and preventing further harm, assessing patients, following protocols for equipment use, and working within the established EMS system to access medical care. First Responder Re-Certification and/or American Red Cross Emergency Response requires a skill test, 80% correct on a national written exam, and fee payment.
Prerequisites: READ 0092 and current First Responder Certification

EMSV 1926
EMT Basic Refresher
(2 Lec; 2 Cr)
The Emergency Medical Technician Refresher course provides updated course materials for participants to be re-certified as part of the nation’s bi-yearly Emergency Medical System re-certification process. Emphasis includes a review of scene control, patient assessment, triage, use of standard equipment, transport concerns, legalities, and physiological theory related to medical and trauma situations. EMT re-certification requires successful completion of the National Registry Practical Exam.
Prerequisites: Current EMT Certification (within 4 years) and current CPR card (Health Care Provider or Professional Rescuer). Anyone with a felony record needs to have clearance to test and be re-certified.

EMSV 1954
First Responder Refresher
(1 Lec; 1 Cr)
First Responder Refresher courses are designed to update and refresh volunteers and professionals to deal with trauma and medical emergencies. Emphasis includes assessing the scene and preventing further harm, assessing patients, following protocols for equipment use, and working within the established EMS system to access medical care. First Responder Re-Certification and/or American Red Cross Emergency Response requires a skill test, 80% correct on a national written exam, and fee payment.
Prerequisites: READ 0092 and current First Responder Certification
ENGINEERING

ENGR 1010
Introduction to Engineering
(2 Lec; 2 Cr)
This course is an introduction to problem solving methods, engineering curriculum, and computer applications in engineering. In addition, students will explore educational and professional career opportunities.

ENGR 1355
Engineering Drafting
(1 Lec; 2 Lab; 3 Cr)
This course reviews the fundamentals of drafting with a review of technical sketching and lettering, orthographic projection, dimensioning rules, and sectional views. The course includes descriptive geometry including auxiliary views, revolution, intersection, developments, and technical drafting. Techniques used include hand/machine drafting and computer aided drafting.
Prerequisites: College level reading, writing, and math

ENGR 1410
Introduction to Digital Logic and Logic Design
(2 Lec; 1 Lab; 3 Cr)
This course is a basic study of the theory and applications of digital electronics. The course includes the study of and-or-not gates, flip-flops, counters, registers, combinational and sequential circuits, and their applications to the computer. This course includes an integral laboratory.
Prerequisite: MATH 1521 or instructor’s consent

ENGR 2410
Statics
(3 Lec; 3 Cr)
This course applies vector algebra to equilibrium analysis of structures, frames, and machines. It studies resultants of force systems, equilibrium of rigid bodies, analysis of structures, centroids, moments of inertia, friction, and methods of virtual work.
Prerequisites: PHYS 1571 and MATH 1561

ENGR 2420
Dynamics
(3 Lec; 3 Cr)
This course applies vector algebra and vector calculus in the solutions of kinematic and dynamic problems. It uses conservation principles in dealing with the dynamics of particle and rigid body systems.
Prerequisites: PHYS 1571 or instructor’s consent, and concurrent enrollment in MATH 1562 or instructor’s consent

ENGR 2430
Mechanics of Materials
(3 Lec; 3 Cr)
This course includes the study and analysis of simple stress and strain, shear and bending moment, flexural and shearing stresses in beams, combined stresses, deflection of beams, statically indeterminate members, and columns.
Prerequisite: ENGR 2410

ENGR 2440
Fluid Mechanics
(3 Lec; 3 Cr)
This course covers fluid properties, fluid dynamics, transport theory and analogies, conservation of mass, energy, and momentum, dimensional analysis, boundary layer concepts, pipe flows, and compressible and open-channel flow. This course is intended for engineering majors and includes open-ended design.
Prerequisite: ENGR 2410

ENGR 2450
Thermodynamics
(3 Lec; 3 Cr)
This course covers basic thermal energy relationships, processes, and cycles, First and Second Laws of Thermodynamics, entropy, and availability. This course is intended for engineering majors and includes open-ended design.
Prerequisite: PHYS 1571
ENGR 2461
Circuit Analysis and Lab
(3 Lec; 1 Lab; 4 Cr)
This is the first course in electrical circuits for all engineering majors. Electrical engineering fundamentals are introduced and applied to: basic circuit analysis, resistive circuits, independent and dependent current and voltage sources, operational amplifiers, phasors, network theorems, RL, RC, & RLC circuits, and natural and forced responses.
Prerequisites: PHYS 1572 and 1582, and MATH 2564

ENGR 2462
Linear Electric Circuits with Laboratory
(3 Lec; 1 Lab; 4 Cr)
This course examines linear electric circuits in steady-state and transient conditions, single and polyphase systems, transformers, filter design wave analysis, and semiconductor circuits. This course is intended for electrical and some mechanical engineering majors. The lab component provides hands-on learning of the lecture concepts and introduces proper use of the lab equipment.
Prerequisite: ENGR 2461

ENGL 0091
Basic English
(3 Lec; 3 Cr)
This course is an in-depth study of basic written language skills. Topics covered include the core elements of sentence construction – the parts of speech, types of sentences, fragments, comma splices, run-on sentences, subject-verb agreement, pronoun reference, capitalization and punctuation. In addition to sentence basics, the course will also cover beginning paragraph writing.
Prerequisite: CPT score between 29-49.

ENGL 0092
Refresher English
(3 Lec; 3 Cr)
This is a refresher course in the study and practice of all stages of the paragraph writing process leading to the development of the multi-paragraph essay. Although prewriting, writing, revising, and editing are the focus of this course, students will review conventions of Standard English usage and punctuation. Students will also study and practice various sentence-combining techniques as a means of increasing sentence variety.
Prerequisite: CPT score between 50-77.49, or a grade of “C” or higher in ENGL 0091

ENGL 1511
College Writing I
(4 Lec; 4 Cr)
Goal 1
This course is a study of basic principles of writing. The course will cover the development of a thesis and supporting paragraphs, organization of ideas according to traditional writing patterns, examination of usage and grammatical problems most troublesome to students, and a study of prose models to develop writing techniques. Students will be required to use a simple word processing program.
Prerequisite: CPT score in READ 77.5 or higher or CPT score in ENGL of 85.5 or higher or a grade of “C” or higher in ENGL 0092

ENGL 1512
College Writing II
(4 Lec; 4 Cr)
Goal 1
An introduction to argument, this advanced freshman-level composition course outlines the process of taking a stand on an issue, analyzing the opposition and its argument, researching and developing support for that argument, and molding all of that information into a readable, well-developed argument paper. Basic concepts of reasoning, critical thinking, problem solving, and documentation are introduced and included in a variety of argument papers.
Prerequisites: Passing grade in ENGL 1511, College level reading

ENGL 1532
Technical Writing
(3 Lec; 3 Cr)
Goal 1
This course is a study of the principles of clear writing. Analysis of audience and purpose, research methods, oral presentation, and visual aids are addressed. This course includes the study of business documents, types of reports, instructions and manuals, proposals, and brochures.
Prerequisite: ENGL 1511 or equivalent, CPT score of 77.5 or higher, or “C” or better in READ 0082

ENGL 1559
Art of the Film
(3 Lec; 3 Cr)
Goal 6
The nature and possibilities of film as a story-telling art medium are examined. Emphasis is on improving critical analysis and evaluation skills so students may better understand and appreciate serious films. The relationship of film to print narrative is explored.
ENGL 1575
Introduction to Literature
(3 Lec; 3 Cr)
Goal 6
Introduction to Literature introduces students to three major genres of literature: fiction, poetry, and drama. A wide range of literary periods and authors will be examined as students develop their skills in critical reading and literary analysis. Students will also learn the literary terms and concepts that will aid their understanding and analysis of these various genres.
Prerequisite: CPT score of 77.5 or higher, or “C” in READ 0082

ENGL 1576
The Literature of Science Fiction
(3 Lec; 3 Cr)
Goal 6
This course explores the origins, elements, and genres of science fiction. This course is designed to offer the student an understanding of the key concerns of science fiction, examining the relationship between man and his technology, the possibilities involved in alternate futures, and the ramifications of alternate value systems as reflected in literature.
Prerequisite: CPT score of 75.5 or higher, or “C” in READ 0082

ENGL 1578
Literature by Women
(3 Lec; 3 Cr)
Goals 6 & 7
The course examines literature by and about women, and more importantly, explores how and why women write. Woman in the process of writing is studied – her problems, her aspirations, and her search for self-identification and self-determination as a writer. Writers studied may include Kate Chopin, Edith Wharton, Virginia Woolf, Marianne Moore, Katherine Mansfield, Eudora Welty, Doris Lessing, Flannery O’Connor, Maya Angelou, Toni Morrison, Sylvia Plath, Joan Didion, Joyce Carol Oates, Nikki Giovanni, and Alice Walker.
Prerequisite: CPT score of 75.5 or higher, or “C” in READ 0082

ENGL 1579
World Literature
(3 Lec; 3 Cr)
Goal 6 & 8
This course provides a survey of literature from Africa and the Middle East, Asia, North America, Latin America and the Caribbean, Oceania and Europe. Readings will introduce Students to the rich diversity of cultures reflected in national literatures. The focus will be on reading and discussion, the elements of literature, and analysis, interpretation, and evaluation.
Prerequisite: CPT score of 75.5, or “C” in READ 0082, completion of ENGL 1511 is helpful

ENGL 2446
Critical Thinking
(2 Lec; 2 Cr)
This course teaches both critical thinking and problem solving by emphasizing awareness of the personal thinking process. From the training of personal awareness, it moves to the more advanced stages of analyzing the thinking of others. The course also encourages students to explore their basic attitudes toward life and education and fosters the development of qualities like initiative, maturity, and responsibility.
Prerequisite: CPT score of 75.5, or “C” in READ 0082

ENGL 2515
Native American Literature
(3 Lec; 3 Cr)
Goals 6 & 10
This course uses creation stories, historic speeches and documents, poetry, fiction, and nonfiction by American Indian writers to enable students to better understand Native American culture and history. In addition to early speeches and stories which began as part of an oral tradition, works by various contemporary authors, including several from Minnesota and the Upper Midwest, will be included in the reading. Focus will be on contextualizing each work studied in order to better appreciate and interpret in a still-emerging Native American literary tradition.
ENGL 2535
British Literature to the 18th Century
(4 Lec; 4 Cr)
Goal 6
This course is a chronological study of British language and literature in its historical and cultural setting from medieval times to the 18th century. This course traces the literature from the Old English period through the 18th century. Writers studied include Chaucer, Shakespeare, Donne, Jonson, Milton, Dryden, Swift, Pope, and Johnson. Students are introduced to relevant literary genre.
Prerequisite: CPT score of 75.5, or "C" in READ 0082

ENGL 2536
British Literature 18th – 20th Century
(4 Lec; 4 Cr)
Goals 6
This course is a chronological study of British language and literature in its historical and cultural setting from the 18th century to the 20th century. This course traces the literature from the romantic period to the present. Writers studied include Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Hardy, Hopkins, Conrad, Woolf, Joyce, Eliot, Yeats, and Auden. Students are introduced to relevant literary genre.
Prerequisite: CPT score of 75.5, or "C" in READ 0082

ENGL 2537
American Literature to 1865
(3 Lec; 3 Cr)
Goals 6 & 7
This course is a study of American literature, from historical and genre perspectives, from its beginnings through the Civil War period. Writers include Bradstreet, Cooper, Thoreau, Poe, Dickinson, Hawthorne and Melville.
Prerequisite: CPT score of 75.5, or “C” in READ 0082, completion of ENGL 1511 is helpful

ENGL 2538
American Literature from 1865
(3 Lec; 3 Cr)
Goals 6 & 7
This course is a continued study of American literature, from historical and genre perspectives, from the Civil War period to the late-twentieth century. Writers include Twain, DuBois, Chopin, Hemingway, Steinbeck, Hurston, Williams, Faulkner, Frost, Cather, Erdrich, and Cisneros.
Prerequisite: CPT score of 75.5, or “C” in READ 0082, completion of ENGL 1511 is helpful

ENGL 2545
Creative Writing
(3 Lec; 3 Cr)
Goal 6
This course focuses on the development of skills for writing short fiction and poetry, with emphasis on methods and techniques appropriate to each genre. This course includes writing description, narration, short fiction, and types of poetry. Drama and/or creative non-fiction may also be explored. Attention is given to developing critical judgments and to individual interest.
Prerequisite: CPT score of 75.5 or higher, or grade of "C" or better in READ 0082

ENGL 2546
North American Nature Writers
(3 Lec; 3 Cr)
Goals 6 & 10
This course reviews the major texts and figures in the literature of nature. The course also examines the ethical, scientific, and philosophical underpinnings of the relationship between humans and the natural world. Among the authors to be studied are Thoreau, Emerson, Dickinson, Lewis and Clark, Muir, Leopold, Abbey, Dillard, Williams, Oliver, and McKibbon. Various local writers – Olson, Cook, Kerfoot, and Bly will also be covered.
Prerequisite: CPT score of 75.5 or higher, or “C” in READ 0082, completion of ENGL 1511 is helpful

ENGL 2547
The Bible as Literature
(3 Lec; 3 Cr)
Goals 6 & 8
The Bible as Literature is designed to introduce the student to the literary qualities of the Bible. Students will examine the Bible’s use of language through a study of its various narratives, lyric poetry, imagery, allegory and metaphor. The course will also examine the historical and cultural background of selected books of the Bible.

ENGL 2577
World Mythology
(3 Lec; 3 Cr)
Goals 6 & 8
This course studies the major characters and events in the major mythologies of the world. The course also examines the symbolic, cultural, and psychological aspects and functions of mythology. Emphasis is placed on classical mythology (Greek and Roman), as well as Norse, Celtic, Native American, and other world mythologies.
Prerequisite: CPT score of 75.5 or higher, or “C” in READ 0082
GENERAL STUDIES

GECL 1155
College Seminar
(1 Lec: 1 Cr)
This course is an introduction to higher education and is designed for career programs in college, both academically and personally. Topics include college policies and procedure, resources available for managing academic and personal issues, and strategies for success in college.

**This course is mandatory for all new students except those students with a high school GPA over 3.0 or have completed 15 college credits with a 2.0 GPA or those that transfer in a similar course.

GEDM 1165
Technical Math
(2 Lec; 2 Cr)
This course includes a problem solving approach to technical applications of fractions, decimals, ratios and proportions, metrics, measurement of linear, area, and volume dimensions and solving formulas using basic algebraic skills.
Prerequisite: Passing score on CPT test as per program majors

GECL 2175
Job Search Strategies
(1 Lab; 1 Cr)
This course introduces the student to a process for developing self-awareness, considering career opportunities, constraints, choices, and consequences identifying career-related goals; and planning of work, education, and related experiences to attain specific career goals. Students will also learn how to create job application correspondence and prepare for and participate in job interview questions.

GEDC 2176
Technical Communications
(2 Lec; 2 Cr)
This course provides the student with practical knowledge and experience in communication processes. It is also an opportunity to participate in various written and speaking situations he or she will find in business, industry, or trade. It is a study of the principles of clear speaking, listening and writing as they apply to job situations. The work will include: analysis of purpose and audience, effective organization and methods, the writing process, and the elements of formatting.
Prerequisite: Passing score on CPT test as per program requirements

GECL 2185
Human Dynamics
(1 Lec; 1 Cr)
This course covers the study of our own personal dynamics and how it influences our interaction with others. Students will gain knowledge about themselves and how we relate to others at home, with our co-workers, supervisors and customers. Students will evaluate, demonstrate and practice skills to improve and strengthen their interaction with others.

GEOGRAPHY

GEOG 1555
Physical Geography
(3 Lec; 3 Cr)
Goals 3 & 10
This course offers an introduction to the dominant spatial patterns of the physical earth with emphasis on weather, and climate, oceanic currents, soil, weathering, and landforms.
Prerequisite: Reading intensive

GEOG 1556
Human Geography
(3 Lec; 3 Cr)
Goals 5 & 8
This course is a systematic study of global spatial patterns concerning the cultural elements of geography including cultural diversity, economic activities, transportation, and rural and urban settlement patterns.
Prerequisite: Reading intensive

GEOG 1557
Conservation of Natural Resources
(3 Lec; 3 Cr)
Goals 5 & 10
This course is a study of the interaction between man and nature with emphasis upon usage and planning of natural resources including soils, forests, grasslands, water, wildlife, mineral resources, and human population growth.
Prerequisite: Reading intensive

GEOG 1558
World Regional Geography
(3 Lec; 3 Cr)
Goals 5 & 8
This course offers a geographical study of global regions with emphasis on internal spatial patterns and interrelations between regions.
Prerequisite: Reading intensive
GEOLOGY

GEOL 1557
Physical Geology
(3 Lec; 1 Lab; 4 Cr)
Goals 3 & 10
This course offers a study of the structural evolution of the earth and its land forms; study of minerals and rocks, volcanic activity, earthquakes, continental drift, and the theory of plate tectonics; emphasis on the geology of Minnesota.
Prerequisite: Reading intensive

GRAPHIC ARTS

Prerequisite: All students entering the Graphic Arts Program must first follow a sequence of first year courses followed by second year courses. Any student who enters the program with previous credits or work experience must have permission of all faculty in the department and Administration.

GRAP 1225
Direct to Plate Technology
(1 Lec; 1 Lab; 2 Cr)
This course covers making line and halftone negatives. The curriculum will also cover direct-to-plate technology and peripheral equipment.

GRAP 1226
Graphic Communications
(1 Lec; 1 Lab; 2 Cr)
This course will enable students to discover and explore the job opportunities in the graphic communications industry. It will also cover the history of the printing industry.

GRAP 1227
Layout and Imposition
(1 Lec; 2 Lab; 3 Cr)
This course covers terms related to film assembly, combine line and halftone work, multi-color work, signature printing, the use of masking film and the pin register system in printing.

GRAP 1235
Offset Press
(1 Lec; 3 Lab; 4 Cr)
This course covers safe ways to dress when operating a press. It covers flow of paper through the press, making selection of proper set-up of feeder and delivery operations. It also covers the inking system, dampening system, and press operations techniques.

GRAP 1236
Offset Inks and Chemistry
(1 Lec; 1 Cr)
This course covers the main ingredients of ink and describes a procedure for measuring alcohol in fountain solution. Students learn to mix inks and test pH in fountain solutions.

GRAP 1237
Platemaking Procedures
(1 Lec; 1 Lab; 2 Cr)
This course covers correct plate exposure and making required plates for single or multiple color jobs, using negatives and/or screens and halftones.

GRAP 1245
Printing Estimating
(1 Lec; 2 Lab; 3 Cr)
This course covers the basic fundamentals of estimating a printing job. Figuring BHRs and overhead into a printing company’s long term goals. Students also develop the ability to read job tickets and fill them out correctly.

GRAP 1246
Environmental Awareness
(1 Lec; 1 Lab; 2 Cr)
This course will discuss the precautions needed to be taken when working with inks and chemicals in the graphic arts industry. To a large degree the course will also discuss the need for recycling all waste products.

GRAP 1247
Bindery Operations
(1 Lec; 2 Lab; 3 Cr)
This course covers basic binding and finishing techniques, such as folding, padding, drilling and stitching jobs. It also covers paper cutting in a safe accurate manner.
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GRAP 1255
Advanced Press I
(1 Lec; 3 Lab; 4 Cr)
This course allows students to work on projects that meet their needs and special interests to develop occupational proficiency. Students work on projects that allow them to work on a project plan start to finish.

GRAP 1256
Quality Control in Graphic Arts
(1 Lec; 1 Lab; 2 Cr)
This course will cover the team building skills of working together in groups to solve problems. It ensures the need for quality control procedures in graphic arts.

GRAP 2251
Mac OS
(1 Lec; 1 Cr)
This course will take an in-depth study of the Mac OS X system, menu functions, networking, peripherals, printing output and multitasking for all future applications in course work. The use of extensions, control panels and personal user setup operations will be studied. This course will provide individual workstation software and technical manuals to perform all functions of the OS operating system.

GRAP 2252
Design & Layout Using QuarkXpress
(1 Lec; 2 Lab; 3 Cr)
This course covers design and layout principle using QuarkXpress: all palettes; how to flow and format text; import and manipulate text and graphics; illustrate objects; apply and set color, and how to print documents used in electronic publishing.

GRAP 2253
Elements of Design & Typography
(1 Lec; 1 Lab; 2 Cr)
This course covers how elements of design and principles work together to create effective communication which is at the core of what every graphic designer needs to know. This course is intended to teach visual fundamentals and examine the physiological and visual processes that are the basics for visual communications. This course covers additional content on color in design, typography, unity, balance and professional profiles.

GRAP 2254
Adobe Indesign
(1 Lec; 2 Lab; 3 Cr)
This course allows the student to work on package design using Adobe Indesign. All software menus will be covered. The student will learn the essential layout and design procedures for packaging. Original idea of a new product will be researched for logo design, corporate identity, color, and all measurement parameters for folding, die-cutting and printing size per cut sheet stock.

GRAP 2261
Illustration with Adobe Illustrator
(1 Lec; 2 Lab; 3 Cr)
This course covers Adobe Illustrator and all of the menu and sub-menu functions used in the Graphic Arts Industry for the purpose of desktop illustration, layout, design, advertising and printing preparations. This program will allow you to draw precise lines and shapes in any weight and style, to fill them with color or patterns and to use type as illustration elements. Illustrator will be used as an art production and illustration tool. You will be creating original and composite artwork as a production artist designing and producing layouts & logos for print and web documents. Illustrator will also be used to create and preview fine artwork & logos for service bureaus, and to create color separations.

GRAP 2262
Portfolio Building Print Ed Accreditation
(2 Lec; 2 Cr)
Portfolio Building Print Ed Accreditation is a compiling and gathering of all first-semester, second-year work. The portfolio will include electronic, video-animated and full-color printouts of each project. The student will follow all of the print ed accreditation guidelines to prepare for Print Ed Certification by the Graphic Art Education and Research Foundation.

GRAP 2263
Preflight/Pagination
(1 Lec; 1 Lab; 2 Cr)
This course covers the proper procedures of preflighting files for print and web media. This course also covers the multiple page layouts for sheetfed printing and the organization of web content as it relates to print media. All program application documents from QuarkXpress, Adobe Indesign, and Adobe Illustrator will be flight checked and files paginated.
GRAP 2264
Advanced Design with QuarkXpress & Indesign
(1 Lec; 2 Lab; 3 Cr)
This course covers the advanced layout and design applications through the powerful application of QuarkXpress and Adobe Indesign. This course will cover the multiple page documents and the layout of newsletters, magazines, and books. Color separations and direct to plate technology will be required.

GRAP 2271
Adobe Photoshop & Digital Photography
(1 Lec; 1 Lab; 2 Cr)
This course covers an extremely powerful software package that fulfills the needs of two separate and distinct worlds: that of the graphic designer and that of the professional printer/publisher and photographer. The graphic designer utilizes Photoshop’s tools to create and manipulate images, retouch photographs, and prepare them for reproduction in print and web using various color and filter processes. Photo backdrops, cropping and display will be emphasized.

GRAP 2272
Web Page Design and Animation
(1 Lec; 2 Lab; 3 Cr)
This course covers the use of multimedia software used to create a web site and web pages complete with graphics, photos, video and animations. Student will utilize the powerful tools of Adobe Go Live & Image Ready software.

GRAP 2273
Adobe Acrobat/Distiller
(1 Lec; 1 Lab; 2 Cr)
This course will use Adobe Acrobat to receive and send PDF files with embedded information for the full use of print and web media. All application documents from Adobe software will be saved as PDFs, used in a presentation, and disseminated to four- and six-color output files.

GRAP 2274
Industry Portfolio Capstone Project
(1 Lec; 1 Lab; 2 Cr)
This course concentrates on one of two student-selected areas (with instructor recommendation).
Track A: Students who select this track will complete portfolio building, preparing finished projects, and perfecting skills for the job market.
Track B: Students who select this track will perform on the job tasks in a Supervised Occupational Experience (SOE) at the site selected in conjunction with the student, the employer, and the College.

HEALTH
HLTH 1415
Treatment of Sports Injuries
(3 Lec; 3 Cr)
This course provides students with the basic principles of athletic training and first aid. Students will learn about the prevention, recognition, treatment and rehabilitation of athletic injuries and wounds. This will include the organization and administration of athletic training. Students will also learn and perform basic taping techniques.

HLTH 1455
Personal & Community Health
(3 Lec; 3 Cr)
This course presents factors and conditions, both current and future that affect the health and efficiency of the individual and the environment. In addition, the course will examine critical issues in our society and indicate possible directions students can go to confront the issues. (Meets Health Requirement of MnTC)

HLTH 1458
Community CPR
(1 Lec; 1 Cr)
This course will review the “ABCs” of emergency resuscitation with an emphasis on the development of the skills necessary to perform CPR, rescue breathing, and assist with airway obstructions on adults, children, and infants.

HLTH 1459
Wellness and Nutrition
(3 Lec; 3 Cr)
This course presents an examination of the theories and practical skills associated with wellness and nutrition. Wellness and nutrition topics include fitness, cardio-respiratory endurance, cardiovascular disease, weight control, flexibility, muscular strength, muscular endurance, diet, stress management, and relaxation. Students will be able to incorporate these principles into their lives.

HLTH 1465
Drug Use and Abuse
(2 Lec; 2 Cr)
This course is a study of the problems associated with the current use of drugs and alcohol. In addition to discussing the basic informational aspects of drugs and alcohol, this course will also examine some of the social, psychological, legal, medical, and rehabilitative aspects of drug and alcohol abuse. (Meets Health Requirement of MnTC)
HLTH 1486
MSHA Refresher/Fire Safety & Response
(1 Cr)
Refresher/additional training on mine safety, accident avoidance, workers responsibilities and rights required by the US Department of Labor’s Mining Safety and Health Administration (MSHA).

HLTH 1655
Emergency Response
(3 Lec; 3 Cr)
This course teaches the skills a First Responder needs to act as a crucial link in the emergency medical services system. Upon successful completion, the student shall receive American Red Cross certification in Emergency Response and certification in Community CPR.

HLTH 1657
Responding to Emergencies
(2 Lec; 2 Cr)
This course prepares the student to assess and make appropriate decisions regarding first aid care in accidents and sudden emergencies. Upon successful completion, the student will receive American Red Cross certification in Responding to Emergencies and in Adult CPR.

HLTH 1975
HAZMAT Technician
(3 Lec; 3 Cr)
Participants of this course will learn to respond to and aggressively manage a release of hazardous materials, as well as a review of the basics of HAZMAT. The course includes classroom and hands-on experience in the aspects of controlling a HAZMAT emergency. Upon successful completion of this course, the participant will be issued a certificate recognized by OSHA for “HAZMAT Technician” that can be utilized in industry, as well as in emergency services.
Prerequisite: SCBA qualifications preferred

HLTH 2459
Introduction to Nutrition
(3 Lec; 3 Cr)
This introductory course covers basic principles of nutrition and their relationship to human health. Students will discuss current trends in nutrition and develop positive nutritional behavior. Topics include introduction to the basic nutrients, nutrition and physical activity, dietary standards, weight management, and proper diet planning.

HISTORY

HIST 1555
History of Western Civilization – Paleolithic to 1500
(4 Lec; 4 Cr)
Goals 5 & 8
This course is designed to give an overview of significant world events from the Paleolithic era until the 1500s AD. Prerequisite: CPT score of at least 75.5 or letter grade of “C” or better in READ 0082

HIST 1556
History of Western Civilization – 1500 to Present
(4 Lec; 4 Cr)
Goals 5 & 8
This course is designed to give an overview of significant world events from the 1500s AD until contemporary times in the Western World. This is designed as a continuation of History 1555, but it may be taken as a separate course. Prerequisite: CPT score of at least 75.5 or letter grade of “C” or better in READ 0082

HIST 1565
American History to 1877
(4 Lec; 4 Cr)
Goals 5 & 7
This course is a study of the major political, economic, social and cultural developments in the United States from aboriginal settlement and colonization through the Civil War. Special emphasis is placed on the interaction among people of Native American, African, and European origin and on issues related to race, ethnicity, class and gender. Prerequisite: CPT score of 75.5 or “C” or better in READ 0082, writing intensive

HIST 1566
American History: 1877 to Present
(4 Lec; 4 Cr)
Goals 5 & 7
This course covers major political, economic, social and cultural developments in the United States from reconstruction to the present. Special emphasis is placed on issues related to race/ethnicity, class, and gender. Prerequisite: CPT score of 75.5 or higher or “C” or better in READ 0082, writing intensive
HIST 1567  
Native American History  
(3 Lec; 3 Cr)  
Goals 5 & 9  
This course will cover the pre-history of North America; European contact with Native Americans and its effects; and the history and effects of various United States relations with and policies toward Native Americans which have led to present day problems and conflicts.  
Prerequisite: READ 0092, ENGL 0091

HUMAN SERVICES

HSER 1231  
Introduction to Human Services  
(4 Lec; 4 Cr)  
This is a course designed to investigate the nature and scope of public service careers in a contemporary society. The course also examines the organizational structure of public service agencies and the effect that agency organization has on policy-making, planning, funding and relationships with other agencies. This course includes a 20-hour, outside of class, mini-internship.  
Prerequisites: College level reading and writing

HSER 1232  
The Helping Process  
(3 Lec; 3 Cr)  
This course is presented as a general concept which is useful in all professions and occupations whose task is to help people deal with their relationships to other people, solve problems which inhibit capacity for healthy growth and development, and cope with the many social and environmental concerns which affect and control daily life. The primary focus is on interpersonal and planning skills which help people to be more effective as practitioners within the human services.  
Prerequisites: College level reading and writing

HSER 1233  
Interviewing  
(2 Lec; 2 Cr)  
This course provides an analysis of the principles of interviewing; how to observe and communicate effectively, obtain information, give and interpret information, sense the impact of the situation on both the interviewer and the person being interviewed. This course is intended to develop a skill in establishing an interpersonal relationship.  
Prerequisites: College level reading and writing

HSER 2234  
Crisis Intervention  
(3 Lec; 3 Cr)  
This course is designed for the Human Services or Chemical Dependency career-oriented student. Students will learn to differentiate between crisis intervention strategies and normative intervention techniques. Theoretical perspectives of crisis intervention will be examined with the student encouraged to design their own hypothesis. Students will gain required knowledge and skills through lecture, discussion, structured experimental learning exercises and videotaping of “Pseudo” intervention situations.  
Prerequisites: HSER 1232 and HSER 1233, PSYC 2655, college level reading and writing

INDUSTRIAL MECHANICAL TECHNOLOGY

IMT 1231  
Industrial Accident Prevention I  
(1 Lec; 1 Lab; 2 Cr)  
The main purpose of this course is to introduce the student to industrial accident prevention. The students will learn how to make safety a part of their daily life.

IMT 1232  
Industrial Accident Prevention II  
(1 Lec; 1 Lab; 2 Cr)  
The main purpose of this course is to introduce the student to the practice of writing and implementing a safe working environment for all personnel. It will develop a student’s awareness to potential accident situations and help the student learn to avoid them.
IMT 1235  
Basic Hydraulic Symbols & Components  
(1 Lec; 1 Cr)  
This course covers the basic hydraulic and pneumatic symbols used in industry. The student will learn how these symbols are used and why they are depicted as they are. The student will also learn the math needed in hydraulics.  
Prerequisite: Math CPT score of 34 or better

IMT 1237  
Elements of Mechanics – Equipment Operation  
(1 Lec; 2 Lab; 3 Cr)  
The main purpose of this course is to introduce the student to simple machines, how they operate, and how they are used in combination to become compound machines that are used in industry. The student will also learn the math and measuring skills required when dealing with the elements of mechanics and learn some of the equipment repair procedures as are found in industry.  
Prerequisite: Math CPT score of 34 or better

IMT 1238  
Rigging  
(1 Lec; 1 Lab; 2 Cr)  
This course covers rigging equipment and procedures along with mobile crane instruction and operation. Estimation skills along with proper hand signals will be learned.  
Prerequisite: Math CPT score of 34 or better

IMT 1241  
Basic Blueprint Reading and Sketching I  
(1 Lec; 2 Lab; 3 Cr)  
The main purpose of this course is to introduce the student to blueprints and sketches. The student will learn how and why blueprints are developed as well as their use in industry. The student will also learn math and measuring required to do blueprint reading.  
Prerequisite: Math CPT score of 34 or better

IMT 1242  
Basic Blueprint Reading and Sketching II  
(1 Lec; 1 Lab; 2 Cr)  
This course will give the student the opportunity to put into practice the knowledge obtained in previous classes. The student will make sketches including all areas of blueprint reading and sketching. Through the use of industry prints, the student will gain comprehensive knowledge of their use in industry.  
Prerequisites: Math CPT score of 34 or better

IMT 1245  
Lubrication and Bearings  
(1 Lec; 2 Lab; 3 Cr)  
The main purpose of this course is to introduce the student to both lubrication and bearings. The lubrication portion will take the student from the beginning source of a lubricant right up to the selection and design of an automatic lubrication system set-up and operation. The bearing portion will allow the student to identify types of bearings and seals, and to know what functions they can expect from them, as well as proper mounting, operation, and inspection of them as is found in a variety of industries.  
Prerequisite: Math CPT score of 34 or better

IMT 1247  
Hydraulic Basics  
(1 Lab; 1 Cr)  
This course covers the basic use of hydraulic components used in industry. The student will learn how these components are used in a variety of applications. The student will also learn the math which is needed in this type of application.  
Prerequisite: Math CPT score of 34 or better

IMT 1251  
Basic Maintenance Welding and Cutting I  
(1 Lec; 2 Lab; 3 Cr)  
The main purpose of this course is to introduce the student to welding and flame cutting. The student will learn how to weld and flame cut as is used in industry. The student will also learn the math required to do welding and cutting, and will allow the student the opportunity to learn and practice arc and oxy-acetylene welding techniques often found in industry and required of a Maintenance Mechanic.

IMT 1252  
Basic Maintenance Welding and Cutting II  
(1 Lec; 1 Lab; 2 Cr)  
The main purpose of this course is to allow the student to become acquainted with some of the different types and requirements of welding as used in industry. The student will also learn the math and nomenclature used with arc welding and the math and blueprint reading needed to do arc welding and oxy-acetylene welding.
IMT 1256
Drive Components and Troubleshooting
(1 Lec; 2 Lab; 3 Cr)
The main purpose is to introduce the student to drive components and equipment operation. The student will learn the how and why of checking equipment before, during, and after operation. The student will also learn about the set-up, maintenance, and troubleshooting of many of the drive components which are used in industry.
Prerequisite: Math CPT score of 34 or better

IMT 1257
Measuring Tools and Layout
(1 Lab; 1 Cr)
The main purpose of this course is to introduce the student to measuring with a variety of instruments used in industry and to familiarize the student with layout tools and practices used in industry. The student will also learn the math used with layout and precision measuring.
Prerequisite: Math CPT score of 34 or better

IMT 2225
Pumps
(1 Lec; 1 Lab; 2 Cr)
This course describes the types of pumps and explains their operation and maintenance. It also tells about the packing, sealing, and lubrication, all of which are essential to good pump operation. Students will be given an opportunity to develop and practice pump maintenance skills in a lab setting.

IMT 2231
Safety and Equipment Maintenance I
(3 Lab; 3 Cr)
The main purpose of this course will be to identify and operate different types of lab equipment in a safe and proper manner.

IMT 2232
Safety and Equipment Maintenance II
(4 Lab; 4 Cr)
The main purpose of this course will be to explain proper safety procedures in the lab and on the equipment, and to operate different types of lab equipment in a safe and proper manner.

IMT 2242
Advanced Blueprint Reading
(1 Lec; 5 Lab; 6 Cr)
This course will acquaint the student with advanced drawing of equipment and machinery. The student will design and produce one, two, and three view drawings, sectional drawings, sketches, and layouts. The student will also be introduced to fluidic circuits.

IMT 2251
Advanced Maintenance Welding and Cutting
(1 Lec; 3 Lab; 4 Cr)
This course applies advanced skills in oxy fuel burning, welding, arc welding, and mig welding as used by maintenance mechanics.

IMT 2261
Hydraulics and Schematics
(1 Lec; 2 Lab; 3 Cr)
This course covers the fundamentals of schematic diagrams. It is designed to provide the student with a strong foundation for advanced work. The student will learn piping diagrams and fluid power diagrams. The student will study fundamental hydraulic principles. They will construct, service and repair various hydraulic systems.

IMT 2262
Pneumatic and Hydraulics Troubleshooting
(1 Lec; 2 Lab; 3 Cr)
The main purpose of this course will be to learn how to recognize the elements of a hydraulic and pneumatic system and how to blend your knowledge of the individual components into a comprehensive knowledge of the entire system and to be able to troubleshoot the systems.

IMT 2265
Alignment and Introduction to Conveyor Systems
(1 Lec; 1 Lab; 2 Cr)
This course is intended to provide the basis for the study course using models that are designed for “hands-on” learning with actual systems that are used in industry. This course will cover precision machine component alignment procedures. The student will also be introduced to conveyor and material handling systems and their applications.
IMT 2266
Introduction to HVAC
(1 Lec; 1 Cr)
This course covers an introduction to basic heating and refrigeration for the maintenance person. The student will learn basic principles of HVAC operations. The necessary related components, safety, and EPA regulations will be emphasized.

INDUSTRIAL TECHNOLOGY SAFETY

ITSF 1485
OSHA
(1 Lec; 1 Cr)
This course is an asset for the construction and general industry careers. The content of this course is designed to familiarize the participants with safety and health aspects of construction and general industry occupations.

ITSF 1486
MSHA New Miner
(1 Lec; 1 Cr)
This course is a requirement for all newly hired mining company employees, contractors and vendors prior to entering mining and aggregate company properties. Participants will learn about the Miner’s Rights under the Federal Mine Act of 1977. This course follows requirements set forth by the Mining Safety and Health Administration. Students will have the opportunity to receive information about the most current MSHA regulations and standards as well as to be certified in Basic First Aid. Students will receive a certificate, which will allow access to mining industry employment; the certificate is valid for one year.

ITSF 1487
MSHA Annual Refresher Training
(1 Lec; 1 Cr)
This course is designed to update and refresh the student’s Mine Safety and Health Administration (MSHA) certificate, which is needed annually. Students will have the opportunity to receive information about the most current MSHA regulations and standards as well as an emphasis on Fire Extinguishing and certification in Basic First Aid. Students will receive a certificate, which will allow access to mining industry employment, and the certificate will be valid for one year.

INDUSTRIAL TECHNOLOGY

IMRT 1215
Introduction to Industrial Maintenance
(2 Lec; 1 Lab; 3 Cr)
The purpose of this course is to introduce the student to the field of industrial maintenance. The course will provide a foundation upon which courses in year two of the Industrial Technology Program will be built. Students will learn the fundamentals of bearings, lubrication, machine safety, and rigging. Students will be exposed to mechanical devices such as measuring tools, common hand tools, common power tools and the fundamentals of pumps and valves. Students will demonstrate predictive maintenance principles prior to the specialized training.

IMRT 1216
Industrial Orientation
(2 Lec; 2 Cr)
The course will provide an overview of and introduction to the taconite industry. It will encompass the various jobs within industry and taconite production. Workers’ rights and responsibilities in an industrial environment will also be discussed. Plant/site visits are included, along with guest speakers and industry and safety experts. Where Northeast Minnesota’s iron ore pellet production fits into the global economy will be discussed. Keys to future job securing and success of mining and in other industries in Minnesota will be studied and discussed.

IMRT 2255
Production Technician Certification
(3 Cr)
The purpose of this course is to introduce the basic skills required and recognized by the Manufacturing Skills Standards Council (MSSC) for production technician certification. This certification provides a portable recognition of skills critical for current and future production technicians. This course focuses on the 4 parts of the MSSC curriculum: 1) Safety, 2) Production methods, 3) Maintenance, and 4) Quality. Upon successful completion of this course, students will be largely prepared for the MSSC production technician certification exams in the above areas.
JOURNALISM

JOUR 1555
Introduction to Mass Communications
(3 Lec; 3 Cr)
Goals 5 & 9
A survey of the theories and concepts important to understanding mass communications. A strong emphasis will be placed on the effects of newspapers, magazines, radio, and television on a global society. The role and responsibility of the mass media in a free society will be debated.
Prerequisite: College level reading desired

LEARNING SKILLS

LSK 1455
College Learning Strategies
(3 Lec; 3 Cr)
This course offers strategies for successful learning and problem solving in college and beyond. Students consider how knowledge is constructed and become aware of different levels of thinking and learning from recall to evaluation. The course stresses how to determine one’s own optimal learning styles and to use them to learn more efficiently and effectively from listening, reading, and new technology. Topics include test taking, note taking, and time management. Basic problem solving and decision making methods are practiced throughout. The course emphasizes taking control of one’s own education and educational directions. “Getting the right start” is the theme.

LSK 2455
Tutor Training
(1 Lec; 1 Cr)
This course is designed to prepare you to tutor as part of the MRCTC tutoring program.
Prerequisite: Successful completion of course(s) for which the student will tutor.

MASONRY

MASN 1221
Blueprint Reading and Estimating
(2 Lab; 2 Cr)
The purpose of this course is to introduce the student to reading blueprints and estimating masonry jobs. Students will learn to design and read basic residential construction blueprints, identify symbols, interpret elevations, interpret scale dimensions, understand floor systems and taper for in-floor drain systems. Students will learn the use of masonry opening schedules as compared to above grade construction with wood materials. Students will learn proper anchor placement. Students will also make a blueprint and a complete material list for two jobs to include cost, labor, and time frame.

MASN 1222
Planning and Estimating
(1 Lec; 1 Cr)
This course will teach the student application of basic math and to use rule of thumb to estimate materials. Students will plan profitable ways to do jobs. They will be able to estimate a residential building plan and estimate the amount of masonry units and materials as well as the cost of labor for the project.

MASN 1223
Principles of Block Laying
(1 Lec; 4 Lab; 5 Cr)
The purpose of this course is to introduce the student to pre-cast block laying. Students will learn block layout, block types, mortar recipes, window and door placement in masonry construction, reinforcement, anchor systems, core filling, header systems and linear measure. Students will learn the use of tools in the block laying trade.

MASN 1224
Mortar/Concrete
(2 Lab; 2 Cr)
The development of mortars and cement will be discussed as well as the importance of mortar in head and bed joints. Students will learn to mix mortar for masonry and will also learn the importance of clean material (lime, sand, and water) in mortar and concrete. Students will learn the basics of how to place and finish concrete.
MASN 1225
Hand and Power Tools
(1 Lec; 1 Lab; 2 Cr)
This course focuses on the proper use of tools used in the masonry trade. The student will be able to identify and use basic masonry tools and gain knowledge necessary to purchase a set of tools for the trade.

MASN 1226
Math for Masons
(1 Lec; 1 Lab; 2 Cr)
This course covers math applications used in the masonry trade including fractions, percentages, area, volume, linear measure, square root and Pythagorean theorem.

MASN 1227
Introduction to Building Codes
(1 Lec; 1 Cr)
This course is an introduction to building codes used in the masonry trade. The use and availability of the UBC code book will be discussed and students will gain an understanding of how to access code books and learn how to use them.

MASN 1233
Principles of Bricklaying
(1 Lec; 5 Lab; 6 Cr)
Students will be introduced to the principles of bricklaying. They will learn brick layout, brick types, mortar recipes, window and door placement in masonry construction, reinforcement, anchor systems and header systems. Students will learn the types and uses of tools in the bricklaying trade.

MASN 1243
Principles of Stonework
(1 Lec; 5 Lab; 6 Cr)
This course will focus on the different types of stone. Selection of stone, types of stone joints and discussion of different ways stone can be laid are included in the course. The student will be able to select, split, and trim stone. The student will learn to lay and tool natural split, field, and manufactured stone. The student will also learn to estimate square feet of stone and tonnage.

MASN 2257
Scaffolding
(1 Lab; 1 Cr)
The purpose of this course is to introduce the student to residential and commercial scaffolding.

MATHEMATICS

MATH 0091
Arithmetic with Applications
(2 Lec; 2 Cr)
This course is designed for students whose background in mathematics shows marked deficiencies. Emphasis is on operational rules of arithmetic and their applications to solving problems.

MATH 0093
Beginning Algebra
(3 Lec; 3 Cr)
This course is a review of operations with real numbers, polynomials, and exponents. Solutions of linear equations and applications, factoring, operations with rational expressions, and solution of rational equations are also included in this course.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0091

MATH 0094
Higher Algebra
(4 Lec; 4 Cr)
This course is the study of exponents and radicals, rational expressions and equations, quadratic equations and inequalities, graphing techniques, and functions.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0093

MATH 1511
Foundations of Mathematics I
(3 Lec; 3 Cr)
Goal 4
This course is the study of mathematics with emphasis on sets, logic, number theory, and mathematical systems. This course is designed for the liberal arts student and will be beneficial to education majors.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0093
MATH 151
College Algebra
(4 Lec; 4 Cr)
Goal 4
This study of Algebra includes: real numbers, first degree equations and inequalities with word problem applications and linear graphs, second degree equations and inequalities in one and two variables with the quadratic formula and graphs, relations, functions, absolute value, variation problems, exponential and logarithmic functions with applications, polynomial functions, the theory of polynomial equations and complex numbers, systems of equations and inequalities, conic sections, and partial fractions.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0094, or instructor’s consent

MATH 2545
Finite Math
(3 Lec; 3 Cr)
Goal 4
This course is primarily for students in the social sciences, behavioral sciences, and various business curricula. It provides an excellent background for statistics. Topics include set theory with operations and Venn diagrams; permutations, combinations and binomial theorem; probability; Bayes’ theorem; frequency functions; binomial probability; matrices operations, transposes, inverses, solutions of systems of equations, and linear programming with simplex method.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0094, or instructor’s consent; MATH 1521 recommended (offered alternate years)

MATH 1547
Trigonometry
(2 Lec; 2 Cr)
This course is the study of angles in degree and radian measure, trigonometric functions of angles in a coordinate system and in triangles, and solutions of triangles and applications. Students will examine solutions of trigonometric identities and equations, and graphs of the trigonometric functions and inverses.
Prerequisite: MATH 0094

MATH 1556
Survey of Calculus
(4 Lec; 4 Cr)
Goal 4
This course is offered for those wishing a brief survey of calculus including some integration. This course will include a review of real numbers, graphing, functions, and inequalities. There will be an introduction of limits, continuity, differentiation, and integration, applications of differentiation and integration from physics, business, social and behavioral sciences, logarithmic and exponential functions with applications of growth, decay, interest, and populations. Students planning to enroll in more than one semester of calculus should begin with Calculus I (MATH 1561).
Prerequisite: MATH 1521 or appropriate test score (offered alternate years)

MATH 1561
Calculus I
(5 Lec; 5 Cr)
Goal 4
This course examines limits, continuity, fundamentals of differentiation and integration of functions of one variable, and applications of differentiation and integration.
Prerequisites: MATH 1521 and MATH 1547 or equivalent, or satisfactory math placement scores

MATH 1562
Calculus II
(5 Lec; 5 Cr)
Goal 4
This course is a continuation of the study of calculus including differentiation and integration of the transcendental functions (inverse, logarithmic, exponential, inverse trigonometric and hyperbolic). This course covers techniques of integration, infinite series, conic sections, parametrized curves, and polar coordinates.
Prerequisite: MATH 1561

MATH 1563
Calculus III
(5 Lec; 5 Cr)
This course covers vectors and analytic geometry in space, vector-valued functions and motion in space, calculus of functions of several variables, multiple integration and applications, and vector analysis including line integrals, surface integrals, Green’s theorem, Stokes’ theorem, and divergence theorem. We will also study matrices and determinants and their use in solving systems of linear equations.
Prerequisite: MATH 1562
MATH 2564
Differential Equations and Linear Algebra
(5 Lec; 5 Cr)
This course covers ordinary differential equations with emphasis on solution techniques and applications. It includes first-order equations, linear equations of higher order, Laplace transforms, infinite series methods, and systems of differential equations. In the linear algebra component, it includes matrices and systems of linear algebraic equations, determinants, vector spaces, linear transformations, and Eigen value problems.
Prerequisite: MATH 1562

MODERN LANGUAGES

FREN 1461
French I
(4 Lec; 4 Cr)
Basic vocabulary and grammatical structures are offered to prepare students for developing proficiency in the French language. Speaking, listening, reading and writing will enable learners to begin conversing in French in relevant situations. Students will acquire vocabulary and grammar skills and an appreciation for the French culture and civilization.
Prerequisite: College level reading

FREN 1462
French II
(4 Lec; 4 Cr)
The basics of vocabulary and grammatical structures offered in French I will be expanded. Concentration will be on oral and written proficiency in the two past tenses, as well as the use of reflexive verbs. Students will be able to deepen their understanding of French culture.
Prerequisites: FREN 1461 (or 2 years of High School French), and college level reading

SPAN 1461
Spanish I
(5 Lec; 5 Cr)
This is a functional course in listening, speaking, reading and writing the Spanish language. Students are given the opportunity to develop the mentioned skills to become proficient in the target language at the appropriate level. Pronunciation, practical vocabulary, grammar, reading, conversation, and awareness and appreciation of the Hispanic cultural values and patterns of behavior are an integral part of this course.
Prerequisite: College level reading

SPAN 1462
Spanish II
(5 Lec; 5 Cr)
This course continues the development of listening, speaking, reading and writing Spanish skills from Spanish 1461. Students also continue to practice pronunciation, practical vocabulary, grammar, reading, and conversation. An awareness and appreciation of Hispanic cultural values and patterns of behavior are an integral part of this course.
Prerequisites: SPAN 1461 and college level reading

MULTI-CULTURAL STUDIES

MCS 1555
Educational Travel
(1-3 Lec; 1-3 Cr)
Goal 8
A cultural studies course involving an extended national/international tour focusing on various disciplines of study: language, history, social and natural science, business, fine arts, and humanities. Time frame depends upon project and instructor. (1 credit – minimum of five hours class time and two-four days of travel, 2 credits – minimum of ten hours class time and five-nine days of travel, 3 credits – minimum of 15 hours of class time and ten+ days of travel)

MCS 1556
Culture Through Film
(3 Lec; 3 Cr)
Goals 5 & 7
Culture Through Film will examine the impact of cultural experiences on individual identity development. Through the use of films and essays, the course will provide students the opportunity to examine their own values, experiences, and beliefs while learning to consider and respect the traditions, experiences, beliefs, and opinions of diverse cultural groups (both domestic and international).
MCS 2555
The Holocaust: Understanding the Ramifications of Prejudice, Racism, and Stereotyping
(3 Lec; 3 Cr)
Goals 5 & 9
The Holocaust: Students will develop an understanding of prejudice, racism and stereotyping, as they examine the many historical, social, religious, political, and economic factors that cumulatively resulted in the Holocaust. Through individual reading assignments, video presentations, small group discussions and guest speakers, the course provides a forum for students to understand the complexity of the subject and to gain a perspective on how a convergence of factors can contribute to the disintegration of democratic values.

MUSIC
MUSC 1315
Piano
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons which are given on a one-to-one basis for anyone who is interested in studying an instrument. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors. Lessons include theory, music technique, student course lesson book, and various solo and/or repertoire books. The course is designed to increase knowledge of theory and improve playing skills and techniques.

MUSC 1325
Brass
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons. The course is designed for students who are interested in studying an instrument. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors.

MUSC 1337
Beginning Piano
This course is designed to provide adult students an opportunity to learn to play the piano. Elements such as melody, harmony, and rhythm are introduced through study pieces. After an analysis of the study piece, each new idea is reinforced through sight-reading and transposing, harmonizing, improvising, technical drills and performance.

MUSC 1345
Percussion
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons. The course is designed for students who are interested in studying an instrument. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors.

MUSC 1355
Strings
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons. The course is designed for students who are interested in studying an instrument. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors.

MUSC 1365
Voice
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons. The course is designed for students who are interested in studying voice. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors.

MUSC 1375
Guitar/Banjo
This course provides weekly half-hour (1 credit), or one hour (2 credit), private music lessons. The course is designed for students who are interested in studying voice or in studying an instrument. Music majors must take a lesson. Lessons are highly recommended for music minors and education majors.

MUSC 1515
Jazz/Swing Choir
(1 Lab; 1 Cr)
This course is a jazz/swing choir which will perform a wide variety of popular music from the early 1900s through today. Performances will be scheduled at the College and for area events as the need arises. This course is taken by permission of instructor and may be taken for credit, or as an activity (non-credit). Prequisite: Permission of instructor
MUSC 1525  
World/Music  
(3 Lec; 3 Cr)  
Goals 6 & 8  
An introduction and overview of music from around the world. Students will explore musical cultures, performance traditions, instruments and instructional methods from different ethnicities and cultural groups including Africa, North American/Native Americans, Central and Southeastern Europe, Latin America, and Indonesia. An understanding and appreciation for both our own “Western” musical roots, and the rich traditions of other peoples from around the globe is the ultimate goal of this course.

MUSC 1555  
American Popular Music  
(3 Lec; 3 Cr)  
Goals 6 & 7  
This course deals with the blues, country, gospel, jazz, folk, rock, and other contemporary music styles. The roots of these styles in 19th and early 20th century folk and popular music are also examined. The emphasis is on the recognition of inherent musical characteristics of the styles and on relating them to their historical and cultural settings.

MUSC 1559  
Introduction to Music  
(3 Lec; 3 Cr)  
Goals 6 & 8  
This course provides a general overview of the field of classical music with emphasis on the historical setting, the philosophical setting, stylistic characteristics, and listening techniques. It is recommended as a humanities elective in general education or liberal arts. This course is useful for music majors and minors as a preparatory study for more in-depth courses.

MUSC 1565  
History of Rock and Roll  
(3 Lec; 3 Cr)  
Goal 6  
This course will provide an overview of the history of rock, beginning with its roots in the blues and the African American influence on this popular musical style. The impact that rock music has had on many other styles of music will also be discussed.

MUSC 1566  
Fundamentals of Music Theory  
(3 Lec; 3 Cr)  
Goal 6  
This course is specifically designed for the needs and requirements of music majors or minors and for elementary education majors. Music majors and minors must take this course in sequence with MUSC 1567. The basic concepts of rhythm, melody, and harmony are studied in theory and are drilled upon through sight-singing and ear training. Students are introduced to basic rhythm instruments, keyboard, autoharp, and recorder. 
Prerequisite: Joint registration with piano

MUSC 1567  
Music Theory II  
(3 Lec; 3 Cr)  
Goal 6  
This course is a continuation of MUSC 1566. Course work includes harmonization and transposition of melodies using I, IV, V chord progressions; compound meters; syncopation; melodic repetition and sequence; chord symbols and their application in jazz, blues, and popular music; introduction to musical forms; and further harmonization using I, ii, ii7, IV, v, and V7 chords. 
Prerequisite: MUSC 1566

EMTP 1120  
Paramedicine I  
(3 Lec; 3 Cr)  
At the completion of this course, the paramedicine student will understand the roles and responsibilities of a paramedic within an EMS system, apply the basic concepts of development, pathophysiology and pharmacology to assessment and management of emergency patients, and communicate effectively with patients. Additionally, the paramedicine student will be able to take proper history and perform comprehensive physical exam on any patient, communicate the findings to others, integrate pathophysiological principles and assessment findings to formulate a field impression and understand how to implement the treatment plan for the trauma patient, and safely manage the scene of an emergency.
Prerequisites: Current EMT-B license or certification and instructor approval
EMTP 1125  
Technical Elective I (from list)  
(1 Lec; 1 Cr)  
This course will prepare the paramedic student to operate an Emergency Care Vehicle within the rules established by the Minnesota Emergency Medical Services Regulatory Board.

Prerequisite: Current EMT-Basic Certification

EMTP 1220  
Paramedicine Skills I  
(3 Lab; 3 Cr)  
After completing this course the paramedic student will be able to apply the basic concepts of development, pathophysiology and pharmacology to assessment and management of emergency patients, be able to properly administer medications, communicate effectively with patients, be able to establish and/or maintain a patient airway, oxygenate, and ventilate a patient, be able to integrate pathophysiologic principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient, communicate the findings to others, and will be able to safely manage the scene of an emergency.

Prerequisite: EMTP 1120

EMTP 1225  
Pharmacology  
(2 Lec; 2 Cr)  
This course is an introduction to pharmacological interventions commonly used in the pre-hospital environment. It covers pharmacokinetics and pharmacodynamics of medications, administration routes, techniques and dosage calculations. Major categories of medications such as antiarrhythmics, analgesics, catecholamines, etc. will be introduced along with specific medications in each group.

Prerequisite: Paramedicine I

EMTP 1300  
Technical Elective II (from list)  
(2 Lec; 2 Cr)  
This course is designed to introduce the student to special pre-hospital environmental difficulties found in SW & SC Minnesota. This course will also discuss bioterrorism as it relates to nuclear, chemical and biological situations the paramedic may face in the field.

Prerequisites: EMTP 1120, EMTP 1220, EMTP 1300

EMTP 1420  
Paramedicine II  
(3 Lec; 3 Cr)  
At the completion of this course, the paramedic student will be able to integrate pathophysiologic principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory problems and/or cardiovascular disease.

Prerequisites: EMTP 1120, EMTP 1220, EMTP 1300; Co-requisite: EMTP 1500

EMTP 1520  
Paramedicine Skills II  
(3 Lab; 3 Cr)  
Skills covered include the basic and advanced skills required to properly manage respiratory and cardiac patients in the pre-hospital environment. These skills include, but are not limited to, respiratory assessment, cardiac assessment, defibrillation, cardioversion, medication administration, cardiac rhythm interpretation and 12 lead monitoring.

Prerequisites: EMTP 1120, EMTP 1220, and EMTP 1300; Co-requisite: EMTP 1420

EMTP 1600  
Critical Care Clinical  
(2 Lab; 2 Cr)  
This course covers clinical areas to include, but not limited to, medical, cardiac, and surgical intensive care units, emergency department, and telemetry.

Prerequisites: EMTP 1400 and EMTP 1500

EMTP 1700  
Support Services Clinical  
(2 Lab; 2 Cr)  
This course covers clinical areas that may include, but are not limited to, intubation, IV therapy, first response, dispatch, and respiratory therapy.

Prerequisites: EMTP 1400 and EMTP 1500

EMTP 1800  
ALS (Advanced Life Support) Ambulance Clinical  
(4 Lab; 4 Cr)  
This course is designed to introduce the paramedic student to an Advanced Life Support Ambulance service. The student will become familiar with the operations, procedures and care provided by the Paramedic in the field. The student will be involved with BLS and ALS patient care and treatment provided under the supervision of a staff paramedic.

Prerequisites: EMTP 1400 and EMTP 1500
EMTP 2020
Paramedicine III
(4 Lec; 4 Cr)
At the completion of this course, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a neurological problem, endocrine problem, an allergic or anaphylactic reaction, a gastroenterologic problem, a renal or urologic problem, a toxic exposure, an environmentally induced or exacerbated medical or traumatic condition, with infectious and communicable diseases, with behavioral emergencies, experiencing a gynecological emergency, experiencing normal or abnormal labor.
Prerequisites: EMTP 1600, EMTP 1700 and EMTP 1800

EMTP 2120
Hazardous Materials
(1 Lec; 1 Cr)
This course covers hazardous materials scene management for EMS personnel. Topics include identifying hazardous materials, scene safety, scene management, decontamination and scene access among others.
Prerequisites: Current EMT-B licensure/certification

EMTP 2220
Paramedicine IV
(3 Lec; 3 Cr)
This course will introduce the paramedic student into the operations and management of an Advanced Life Support Ambulance service. It will additionally discuss certain types of Rescue Operations which will be necessary for successful patient outcomes in the pre-hospital environment.
Prerequisites: EMTP 2020

EMTP 2300
ACLS (Advanced Cardiac Life Support) Provider
(1 Lec; 1 Cr)
This course will result in the certification of Advanced Cardiac Life Support Provider from the American Heart Association. It covers all of the aspects of treating cardiac patients at the advanced level to include basic and advanced airway control, cardiac rhythm interpretation, medication administration, and post resuscitation management.
Prerequisites: Current CPR-Experienced Health Care Provider certification, current RN, Paramedic, or Paramedicine, Cardiovascular Tech, or Respiratory Care student, and have the approval of the instructor

EMTP 2320
BTLs/PHTLS (Basic Trauma Life Support/Pre-Hospital Trauma Life Support) Advanced
(1 Lec; 1 Cr)
This course will provide certification as an Advanced Trauma Life Support Provider. It will cover areas such as kinematics, various injury pathologies and mechanisms, and trauma patient management priorities.
Prerequisites: Current EMT-Intermediate, or EMTP 1420 and EMTP 1520, and instructor approval

EMTP 2340
PALS (Pediatric Advanced Life Support) Provider (1 Lec; 1 Cr)
This course follows the course standards of the American Heart Association for PALS. The course leads to certification as a PALS provider upon successful completion.
Prerequisites: Current CPR-Experienced Health Care Provider certification, RN, Paramedic, Respiratory Care Therapist; or current second year paramedic student, and approval of the instructor

EMTP 2360
NRP (Neonatal Resuscitation Program) Provider Course
(1 Lec; 1 Cr)
This course will result in the certification from the American Heart Association for NRP. The course leads to awarding of a certification upon successful completion of the class.
Prerequisites: Current CPR-Experienced Health Care Provider certification, RN, Paramedic, Respiratory Care Therapist; or current second year paramedic student, and approval of the instructor

EMTP 2380
AMLS (Advanced Medical Life Support) Provider Course
This course follows the course standards of the American Heart Association for PALS and NRP. The course leads to the awarding of certificates of successful completion.
Prerequisites: Current CPR-Health Care Provider certification, equivalent experience/education as a current RN, Paramedic, Respiratory Care Therapist or current second year NTC health career student, and approval of the instructor
EMTP 2400  
Emergency Room Clinical  
(3 Lab; 3 Cr)  
This course covers the operations of the Emergency Department of an acute care hospital. The paramedic student utilizes all of the knowledge and skills learned to this point to provide patient care in this setting under the supervision of an RN and/or physician.  
Prerequisites: Instructor permission

EMTP 2500  
Acute Care Clinical  
(3 Lab; 3 Cr)  
This course includes clinical rotation through labor and delivery, pediatrics, and psychiatry. The paramedic student utilizes all the knowledge and skills learned to this point to provide patient care in this setting under the supervision of appropriate staff.  
Prerequisites: Instructor permission

EMTP 2600  
Paramedic Internship  
(8 Lab; 8 Cr)  
This course covers the application of advanced level skills and knowledge in the evaluation and care of the pre-hospital patient. The paramedic student will be involved in providing patient care as a team member and as a team leader under the direct supervision of a staff paramedic along with all the typical “follow-up” procedures prior to and after a response.  
Prerequisite: Instructor permission

PHILOSOPHY

PHIL 1551  
Introduction to Ethics  
(3 Lec; 3 Cr)  
Goals 6 & 9  
This course is designed to develop students’ capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life. The course will provide students with a survey approach to definitions, terminology, topics, and the basics of reasoning involved in this branch of philosophy. This course will help students understand the argumentation of historic ethical theories and apply those theories to current moral issues.  
Prerequisite: ENGL 1511 is recommended prior to taking this course

PHIL 1565  
American Indian Philosophy  
(3 Lec; 3 Cr)  
Goals 6 & 10  
This course will offer an examination of Native American world view in its historical and contemporary context by exploring the beliefs, religion, and ceremonial practices of the American Indian. Emphasis will be placed on the Ojibwa people of the region by study of their legends, myths, sacred stories, and religious beliefs that provided the foundation for Ojibwa philosophy and world view. Philosophy terms and definitions will be studied and applied.

PHIL 1575  
Introduction to Philosophy  
(3 Lec; 3 Cr)  
Goal 6  
This course is an introduction to philosophic inquiry. The student is presented with the history of philosophy and the topics of reality, knowledge, religion, and freedom.  
Prerequisite: ENGL 1511 is helpful, but not required

PHIL 1585  
Ethics and Issues in Regional Development  
(3 Lec; 3 Cr)  
Goals 6 & 10  
This course provides a broad overview of the ethical perspectives regarding man’s proper relationship with the natural world. Ethical considerations are applied to environmental issues pertinent to development in rural areas. Students will become familiar with the environmental/political climate and are encouraged to develop a heightened awareness of the natural environment and how the two interrelate.
PHYSICAL EDUCATION

PHED 1415
Weight Training
(1 Lab; 1 Cr)
This course will present fundamental concepts and techniques of weight training. Safety, proper lifting techniques, and overall fitness are specifically emphasized topics in this exercise activity.

PHED 1416
Aerobic Fitness
(1 Lab; 1 Cr)
This course will follow the standards and guidelines of the American Council on Exercise (ACE). This will include a definition of aerobic exercise, medical considerations of the participant, body composition, nutrition needs, endurance development, flexibility, injury prevention and treatment, and in-class participation in aerobic exercise.

PHED 1418
Physical Fitness
(1 Lab; 1 Cr)
This course presents basic skill development for lifelong fitness. Physical Fitness will introduce the student to the basic components of fitness including cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition. Each student will develop personal skills for a lifetime fitness program.

PHED 1421
Beginning Snowboarding
(1 Lab; 1 Cr)
This course provides basic skills for lifelong participation in snowboarding. This class will begin at the non-snowboarding level and progress through parallel turns. The class will meet at Giants Ridge Ski Resort, one day a week for eight weeks (2 hour sessions).

PHED 1422
Intermediate Snowboarding
(1 Lab; 1 Cr)
This course will expand on basic snowboarding skills. This class will start at beginning parallel turns and will progress through advanced parallel turns. The class will meet at Giants Ridge Ski Resort, one day a week for eight weeks (2 hour sessions).

PHED 1425
Beginning Tennis
(1 Lab; 1 Cr)
This course is designed to develop skills from the beginning through the intermediate level. The student will develop a knowledge of playing rules, strategy in singles and doubles, and several scoring procedures.

PHED 1427
Bowling
(1 Lab; 1 Cr)
Skills start at the beginning level with much emphasis given to fundamental technique. The objective is to try to combine a well-rolled ball with consistent aiming. Knowledge of the sport as a whole should be acquired.

PHED 1435
Beginning Golf
(1 Lab; 1 Cr)
The purpose of this class is to present the playing skills, rules, and knowledge of the game of golf to the beginner in such a manner that he/she can develop skills to the intermediate level.

PHED 1449
Walking for Fitness
(1 Lab; 1 Cr)
This course will develop lifetime learning in the basic skills of walking with an emphasis on developing a healthy lifestyle, while gaining the benefits of physical fitness. Key components of the course include monitoring heart rate, walking techniques, and fitness walks.

PHED 1477
Archery
(1 Lab; 1 Cr)
This is a beginning class of indoor archery target shooting, using recurve bows of light to medium weight.

PHED 1479
Curling
(1 Lab; 1 Cr)
This course provides personal development of the basic fundamental skills for the lifelong participation in the sport of curling. Additional emphasis will be placed on the rules, scoring, strategy, and etiquette of the game of curling. On-ice drills and games will be performed in the class.
PHED 1487
Dance Line
(1 Lab; 1 Cr)
This course is designed for those interested in various forms of dance. The group will practice approximately three times per week and perform at various athletic events and/or school functions. Students will actively participate in choreographing dances with supervision of instructor. Practices and performances are required.

PHED 1489
Introduction to Physical Education
(2 Lec; 2 Cr)
This course will present an introduction to the history and philosophies of physical education. This class is a critical examination of the history, people, events, programs, and philosophical positions that have led to the current status of physical education, fitness, and sport in the United States.

PHED 1495
Varsity Football
(1 Lab; 1 Cr)
The student in this course must be able to meet NJCAA rules of eligibility for participation, and participate in all practices and games.

PHED 1496
Varsity Volleyball
(1 Lab; 1 Cr)
Students in this course must be able to meet NJCAA rules of eligibility for participation, participate in all scheduled practices, and be available for games during the entire season as required by the coach.

PHED 1497
Varsity Men’s Basketball
(1 Lab; 1 Cr)
Students participating in this course must be able to meet NJCAA rules of eligibility for participation, participate in all scheduled practices, and be available for games during the entire season as required by the coach.

PHED 1497
Varsity Women’s Basketball
(1 Lab; 1 Cr)
The student in this course must be able to meet NJCAA rules of eligibility for participation, participate in all scheduled practices, and be available for games during the entire season as required by the coach.

PHED 1498
Varsity Baseball
(1 Lab; 1 Cr)
Students in this course must be able to meet NJCAA rules of eligibility for participation, participate in all scheduled practices, and be available for games during the entire season as required by the coach.

PHED 1499
Varsity Softball
(1 Lab; 1 Cr)
Students in this course must be able to meet NJCAA rules of eligibility for participation and participate in all practices and games.

PHED 2415
Introduction to Exercise Science
(3 Lec; 3 Cr)
This introductory course provides an overview of the field of exercise or sport science. The basics of human physiology and how the body works during exercise will be discussed. Career opportunities within sports medicine and related health fields will be investigated.

PHED 2416
Current Issues in Exercise Science
(3 Lec; 3 Cr)
This course examines significant and recent topics or development in the field of exercise science, wellness, health and fitness. It is also designed to integrate topics from a variety of disciplines and other health care areas which have common interests. Emphasis will be placed on current educational topics such as relaxation & stress management, weight management & nutrition, alternative medicine, new cardiovascular and strength exercise techniques, professional credentials, hypokinetic diseases, and fitness testing which have an immediate impact on the exercise science profession. Critical examination of the factors that have shaped the presentation and explanation of such issues. Undertake independent research into a sports issue, analyze the data and produce detailed and reasoned conclusions and recommendations. Generate coherent arguments about how particular issues may be resolved. Prerequisite: PHED 1430 Introduction to Exercise Science, PHED 1439 Introduction to Phy. Ed
PHED 2417  
**Exercise and Fitness Assessment**  
*(3 Lec; 3 Cr)*  
This course is designed to acquaint the student with the creation, evaluation, and interpretation of tests and measurements used in the fields of physical education and exercise science settings. Basic statistical analysis will be discussed.  
Prerequisite: PHED 1430 Introduction to Exercise Science, PHED 1439 Introduction to Physical Education, MATH 1521 College Algebra, Math 1545 Finite Math.

PHED 2418  
**Group and Individual Exercise Instruction**  
*(3 Lec; 3 Cr)*  
The advanced theory and professional practice of exercise leadership, design of group and individual exercise sessions, supervision of participants, and modification of exercise prescriptions. Includes techniques of exercise adherence and practicum experience with cardiovascular and resistance programs.  
Prerequisite – PHED 2415 Introduction to Exercise Science, PHED 1439 Introduction to Physical Education, PHED 1417 Exercise & Fitness Assessment.

PHED 2425  
**Social and Ethical Aspects of Sport and Physical Activity**  
*(3 Lec; 3 Cr)*  
This course will focus on the sociological and ethical aspects of sport and physical activity. This class will investigate the American value system of competition and sport. The social influences on such areas as children, religion, interscholastic and intercollegiate sport, politics, race and gender issues will be examined.

PHED 2426  
**Psychology of Sport and Physical Activity**  
*(3 Lec; 3 Cr)*  
This course will focus on the psychological issues as they relate to sport and physical activity. Research, principles and issues will be presented. Further study will involve the affects physical activity has as it relates to performance enhancement, communication, attitudes, and motivation.

PHYSICS

PHYS 1551  
**Introductory Physics**  
*(3 Lec; 1 Lab; 4 Cr)*  
Goal 3  
This course covers the basic principles of physics from a conceptual and practical viewpoint with a minimal amount of math. Topics generally include mechanics, waves and sound, fluids, thermodynamics, electricity and magnetism, and light. It is designed for students in general education and those who are preparing to take the College Physics sequence or the Engineering Physics sequence.

PHYS 1561  
**College Physics I**  
*(1 Lab; 3 Lec; 4 Cr)*  
Goal 3  
This course covers selected topics from mechanics, kinetic theory, heat and thermodynamics, wave motion, and sound. It is designed for students in forestry, pre-pharmacy, and general education. Not for pre-engineering students.  
Prerequisite: High School Higher Algebra

PHYS 1562  
**College Physics II**  
*(1 Lab; 3 Lec; 4 Cr)*  
Goal 3  
This course covers selected topics in electricity and magnetism, light, and modern physics, and is designed for students in forestry, pre-pharmacy, and general education. This course is not for pre-engineering students.  
Prerequisite: High School Higher Algebra, PHYS 1561, or consent of instructor

PHYS 1567  
**Introductory Astronomy**  
*(3 Lec; 3 Cr)*  
Goal 3  
This course is an introductory study of the universe. It covers development of astronomy as a science, the scale structures and evolution of the solar system, stars, stellar evolution, galaxies, and cosmology.
PHYS 1571
Engineering Physics I
(4 Lec; 4 Cr)
Goal 3
This course will cover selected topics from mechanics, heat and thermodynamic, wave motion, and sound. It is a required course for pre-engineering students and pre-physical science majors.
Prerequisite: Concurrent enrollment in MATH 1561 or instructor’s consent

PHYS 1572
Engineering Physics II
(4 Lec; 4 Cr)
Goal 3
This course will cover selected topics in light, electricity, magnetism, and modern physics. It is a required course for pre-engineering and pre-physical science majors.
Prerequisites: PHYS 1571, and concurrent enrollment in MATH 1562, or instructor’s consent

PHYS 1581
Engineering Physics Lab I
(1 Lab; 1 Cr)
Engineering Physics Lab – required as part of Engineering Physics.

PHYS 1582
Engineering Physics Lab II
(1 Lab; 1 Cr)
Engineering Physics Lab – required as part of Engineering Physics

PHYS 2430
Modern Physics
(3 Lec; 3 Cr)
Modern Physics is the third course in the physics sequence for students majoring in physics or engineering. This course focuses on physical discoveries made during the 20th century including relativity, particle physics, quantum mechanics, and nuclear physics.
Prerequisite: PHYS 1572 Engineering Physics II

POLITICAL SCIENCE

POLS 1556
American Government
(3 Lec; 3 Cr)
Goals 5 & 9
This course is a study of the structure and function of the national government of the United States including political theory, political parties, elections, civil rights, and the three branches of government.
Prerequisite: College level reading

POLS 1557
State and Local Government
(3 Lec; 3 Cr)
Goals 5 & 9
This course is a study of the structure and functions of state and local governments with emphasis on Minnesota.
Prerequisite: College level reading

POLS 1559
International Relations
(3 Lec; 3 Cr)
Goals 5 & 8
This course is a study of contemporary and historical international relations, nation-state behavior, foreign policy and defense issues, and international organizations.
Prerequisite: College level reading
PRACTICAL NURSING

NURS 1215
Introduction to Nursing
(2 Lab; 4 Cr)
This course covers the introductory skills of nursing. The units of instruction include maintaining a safe and clean environment, communicating information, meeting basic human needs, providing personal care (including activity and exercise), assisting with nutrition and elimination needs, measuring vital signs, understanding mental health and social service needs, and caring for a client with special equipment or procedures. The course teaches the student to be able to perform these skills in a long-term care facility or in a home environment. Instruction is provided through lectures, video, and instructor demonstration. The students are given practice time in the lab and subsequently must give return demonstrations of the skills learned.

NURS 1222
Applied Nursing Skills
(4 Lab; 4 Cr)
This course covers the assimilation and application of nursing skills. It will include skills related to the prevention of infection, performance of a physical exam, collection of specimens, administration of enemas, application of hot and cold treatments, surgical care, postmortem care, nursing documentation, etc.

NURS 1225
Nutrition
(2 Lec; 2 Cr)
The purpose of this course is to provide nursing students with a foundational understanding of the relationship between diet and health. Areas of study will be fundamentals of nutrition including digestion, absorption, metabolism, and the six nutrient groups. The focus of the course is to provide knowledge of the changes in the nutritional requirements across the life span and the use of diet therapy to restore and maintain health in the treatment of disease.

NURS 1226
Gerontology & Clinical
(2 Lec; 2 Lab; 4 Cr)
The focus of this course is to present information about the aging process so the student may adapt nursing skills to our increasing elderly population. It will cover a diversity of topics including attitudes toward aging, normal physical changes, promoting wellness, common physiological and psychological conditions, restorative care, and legal/ethical considerations. The student will experience practical application of theory through resident care at a clinical site.

NURS 1227
Medical Terminology
(1 Lec: 1 Cr)
This course examines medical word composition with emphasis on word roots, prefixes, and suffixes. Abbreviations and symbols are also taught. Pharmaceutical and diagnostic terms and abbreviations are examined in this course.

NURS 1232
Applied Math & Medications
(2 Lec; 1 Lab; 3 Cr)
This course covers the legal/ethical responsibilities of medication administration and recording. It includes a review of basic math; fractions, decimals, ratios, proportions, and apothecary and metric systems of measurement. The student is taught drug classifications and purpose and how to use drug reference books. Instruction on dosage calculations, administration of medications, and observing a client’s response is also given.

NURS 1242
Maternal/Child Health and Clinical
(2 Lec; 2 Lab; 4 Cr)
This course covers a review of child growth and development from birth through adolescence and young adulthood. Common abnormal conditions and diseases of children, including the newborn, are studied. Reproduction, prenatal development, pregnancy, labor and delivery, as well as the postpartum period and newborn period, and related conditions and diseases are studied. The student will experience practical application of theory through client observation and care at the clinical site.

NURS 1255
Mental Health Concepts & Clinical
(2 Lec; 1 Lab; 3 Cr)
This course provides a basic foundation in understanding a client who is undergoing a crisis, experiencing anxiety, or coping with mental illness or condition. A variety of psychiatric disorders are addressed, including schizophrenia, depression, mania, personality disorders, and chemical abuse. Nursing interventions, current treatment modalities, and pharmacology will be discussed. The student will experience practical application of theory through client observation and care at the clinical site.
NURS 1256
Integrated Science
(4 Lec; 4 Cr)
This course covers a review of basic chemistry. It includes study of cell components and functions, types of body tissues, body cavities and body organizational terminology. The integumentary, musculoskeletal, reproductive, respiratory, digestive circulatory, urinary, endocrine, sensory and nervous systems and their functions and structure are covered. Body temperature and metabolism, fluid and electrolyte, acid-base balance and human development and genetics and an introduction to microbiology and human disease are also covered.

NURS 1257
Trends in Nursing
(1 Lec; 1 Cr)
This course covers the history of nursing and the role of the LPN. Practical nursing program components and the role of the nursing student is discussed. Time management, stress reduction, and study techniques are examined. Current health care issues and trends are reviewed. Health promotion, disease prevention, therapeutic communication, health care delivery systems/reimbursement agencies, legal/ethical concerns, and cultural considerations are also important components of this course. Leadership, professionalism, and customer service principles are also covered.

NURS 1258
Role Transition
(1 Lec; 1 Cr)
The transition from practical nursing student to LPN is the primary focus of this class. This course begins with a review of the practical nursing role and the nursing process, as well as a review of the history of nursing and a review about the health care team. A focus on providing care to multiple patients and on clinical time management and prioritization is included. Historical, legal, ethical, and cultural perspectives of nursing are reviewed. Therapeutic communication and critical thinking concepts are again examined. The Board of Nursing, the Nurse Practice Act, nursing publications and organizations, and political activism are explored. Leadership skills including problem solving and effective communications skills are discussed. Community health care agencies and resources are introduced and explored. The nursing student is also directed in the licensure application process.

NURS 1261
Adult Nursing I & Clinical
(4 Lec; 4 Lab; 8 Cr)
This course covers selected body systems and associated disorders/conditions. The integumentary, urinary, male reproductive, and musculoskeletal systems are covered. Also, there is a special emphasis on the study of diabetes. The student will learn about the symptoms, treatments, and complications of diseases and conditions. Commonly used medications will be discussed as related to the specific systems covered. The student will utilize critical thinking skills and determine appropriate nursing care interventions. In addition, general oncology nursing is covered. Also, pain and sleep phenomena and the perioperative experience will be discussed. The student will experience practical application of theory through client observation and care at the clinical site.

NURS 1262
Adult Nursing II & Clinical
(3 Lec; 4 Lab; 7 Cr)
This course is a continuation of NURS 1261. It addresses additional selected body systems and associated disorders/conditions. The respiratory, cardiac, neurological, immune, hematological, endocrine, sensory, and gastrointestinal systems are covered. Also, care of the client with HIV/AIDS is studied. The student will learn about the symptoms, treatments, and complications as they relate to the disorders/conditions covered. Emphasis is also given to the medications most commonly used in the treatment of specific system disorders/conditions. Critical thinking skills are used by the student to determine appropriate nursing care observations and interventions. The student will experience practical application of theory through client care at the clinical site.

NURS 1275
NCLEX Review
(2 Lec; 2 Cr) Elective
The purpose of this course is to prepare nursing students for the practical nursing licensure exam. Test taking tips related to multiple choice testing are covered. Multiple areas of nursing are reviewed including: pharmacology, nutrition, medical/surgical nursing, mental health nursing, maternal and child health nursing, and gerontological nursing. The review method will be through practice exams and group and individual work.
PSYCHOLOGY

PSYC 1415
Freshman Year Experience
(1 Cr)
Designed to assist first-year students to identify educational goals, career paths, transfer options and how to achieve success at Mesabi Range Community & Technical College. This course will assist the student in developing a legitimate program of study based upon the student's chosen career path and help maintain a high level of student responsibility through a critical analysis of the student's choices and how they affect the success of a Mesabi Range Community & Technical College student.

** This course is mandatory for all new entering degree-seeking students who are not enrolled in a technical program. Students transferring from another institution will be evaluated on a case-by-case basis.

PSYC 1455
Personal Adjustment and Transition
(3 Lec; 3 Cr)
This is a course utilizing a psychological/educational approach to assist students in transition to college life. Discussion will focus on attitudes which foster a fear of success and feelings of helplessness, low self-esteem, stress, and anxiety. Students will learn techniques to achieve self-directedness, set and carry out goals, and manage time. This course is open only to Student Support Services (TRiO) students.

PSYC 1457
Career Explorations
(1 Lec; 1 Cr)
In this course, students will learn the skills needed for effective career decision making and life planning. They will also explore their interests, values, and abilities, and how these relate to career choice. Techniques for researching occupations will be taught as well as skills for effective decision making and goal setting.

PSYC 1555
Psychology of Men
(3 Lec; 3 Cr)
** Goals 5 & 7
Introduction to the study of men's lives. Topics include boyhood, the privileges and perils of collegiate masculinities, fears about men's friendships, men and work, men and health, intimacy and poser issues with women, male sexualities, male violence, and men in families. A course for both women and men about men's issues.

PSYC 2551
General Psychology
(4 Lec; 4 Cr)
** Goal 5
This course is an introduction to the scientific study of human behavior: history, background and methods, development, perception, learning, thinking, motivation, emotion, intelligence, personality, adjustment, mental health and social psychology.
Prerequisite: Recommend CPT score of 72, or "C" or better in READ 0082, reading and writing intensive

PSYC 2556
Industrial/Organizational Psychology
(4 Lec; 4Cr)
This course is an introduction to the study of human behavior in the work environment. Topics for discussion will include the nature of work in the modern world, organizational theory and culture, personnel selection, personnel training, work efficiency, human motivation, performance appraisal, leadership and supervision, teams, job satisfaction, employee safety and health, stress, human engineering, and consumer psychology.

PSYC 2558
Abnormal Psychology
(3 Lec; 3 Cr)
** Goals 5 & 7
This course examines mental disorders and behavioral deviations with primary emphasis on etiology, classification, symptomatology, and alternative therapeutic approaches.
Prerequisite: PSYC 2551; reading and writing intensive

PSYC 2567
Life Span Development
(4 Lec; 4 Cr)
** Goals 5 & 7
This course is a scientific and theoretical examination of the physical, social, cognitive, and psychological dimensions of development throughout the life span.
Prerequisite: PSYC 2551; reading and writing intensive
PSYC 2655
Group Dynamics
(3 Lec; 3 Cr)
Through lectures and actual participation in facilitation of the small group process, students will become familiar with the skills and techniques common to working with groups. This includes group dynamics, determining group purpose, basic group roles, stages of group development, group members’ roles, group leader roles, and functions.
Prerequisites: None for non-Human Service majors; HSER 1237 Helping Process for Human Service majors, college level reading and writing.

READ 0081
Efficient Reading I
(3 Lec; 3 Cr)
This course offers a step-by-step approach designed to help students improve their reading skills in the following nine areas: 1) building vocabulary; 2) defining the terms, general and specific; 3) finding the topic and the main idea; 4) the function of supporting sentences; 5) other sentence functions; 6) identifying different types of paragraphs; 7) reading longer selections; 8) reading a textbook chapter; and 9) note taking techniques. The classroom format incorporates both large and small group instruction, as well as individual assignments. Classroom activities will include the examination of various reading assignments taken from textbooks used at the Mesabi Range campus (CPT scores considered).

READ 0082
Efficient Reading II
(3 Lec; 3 Cr)
This course offers a systematic, research-based approach designed to help students improve their reading skills in the following seven areas: 1) SQ3R; 2) vocabulary development; 3) reading speed; 4) comprehension; 5) summary writing; 6) response writing; and 7) pattern recognition. This course also incorporates writing into the reading class by helping students appreciate why recognizing good writing enhances reading. The classroom format incorporates both large and small group instruction, as well as individual assignments.
Prerequisite: CPT score of 72 or higher, or “C” or better in READ 0081.

READ 1455
Critical Reading Skills
(2 Lec; 2 Cr)
This is a course designed to help students master college-level reading materials. The assignments are taken from all academic levels. The reading skills emphasized are fundamental to intelligent reading of college-level material including literal and inferential comprehension, making connections, understanding figurative language, and evaluating ideas. Multicultural reading selections are assigned to provide class participants the opportunity to recognize and share the concerns and experiences of ethnically diverse Americans.
Prerequisite: CPT score of 72, or “C” or better in READ 0082.

SOCIOLOGY

SOC 1452
Crime and Delinquency
(3 Lec; 3 Cr)
Goal 5
Students will study crime and delinquency from both the social and psychological view. Emphasis will be placed upon the definition, nature, causes, and degree of criminal and delinquent behavior and its effect upon society. An overview of the juvenile justice system will also be presented.
Prerequisites: College level reading and writing.

SOC 1551
Introduction to Criminal Justice
(3 Lec; 3 Cr)
Goals 5 & 9
This course is an analysis of the criminal justice system in the United States. It deals with criminal law and the roles and relationships of the four institutions in the criminal justice system: law enforcement, criminal bar, courts, and corrections.
Prerequisites: College level reading and writing.

SOC 1555
Introduction to Sociology
(3 Lec; 3 Cr)
Goals 5 & 7
This course is a survey of characteristics of human group life with emphasis on the structure of the social environment and its influence upon the individual.
Prerequisite: CPT score 72, or “C” or better in READ 0082.
SOC 1557  
Courtship, Marriage and Family  
(3 Lec; 3 Cr)  
Goals 5 & 7  
This course is a sociological study of dating, mate selection, and marital and non-marital relationships. Special emphasis is placed on gender and diversity in family arrangements: race, class, ethnicity, and sexual preference.  
Prerequisite: CPT score of 72, or “C” or better in READ 0082

SOC 1558  
Human Relations  
(3 Lec; 3 Cr)  
Goals 5 & 7  
This course is a study of the contributions and lifestyles of the various racial, cultural, and economic groups in our society; recognizing and dealing with dehumanizing biases, discrimination and prejudices; learning to respect human diversity and personal rights; developing positive feelings toward all humanity.  
Prerequisites: College level reading and writing (writing intensive)

SOC 1559  
Human Sexuality: Sex, Romance and Relationships  
(3 Lec; 3 Cr)  
Goals 5 & 7  
This course explores psycho-social sexual development with emphasis on developing and maintaining meaningful, enjoyable and responsible sexual relationships throughout life. Students will explore childhood, adolescent and adult sexual behavior; dating and mate selection; marital, extramarital sex; sexual variation; and cultural, religious and societal influences on sexual values and behavior.  
Prerequisite: CPT score of 72, or “C” or better in READ 0082

SOC 1565  
Social Problems  
(3 Lec; 3 Cr)  
Goals 5 & 7  
This course is a sociological study of causes, consequences, and solutions of major social problems such as racism, crime, poverty, mental and physical illness, and environmental issues.  
Prerequisite: CPT score of 72, or “C” or better in READ 0082, writing intensive

SPEECH

SPCH 1550  
Introduction to Communication  
(3 Lec; 3 Cr)  
Goal 1  
This survey course will introduce the student to the basic process of human communication in today’s diverse society by balancing scholarship and emphasizing skills. The primary topics covered will be interpersonal communication, public speaking, and small group communication.

SPCH 1555  
Public Speaking  
(3 Lec; 3 Cr)  
Goal 1  
This course provides practical experience for those who want to develop or improve their ability to speak in front of groups. The fundamentals of topic selection, organization, development, delivery, and audience analysis are studied and utilized. Students engage in a number of public speaking experiences with emphasis on extemporaneous, informative, and persuasive speeches.  
Prerequisite: College level reading

SPCH 1565  
Interpersonal Communication  
(3 Lec; 3 Cr)  
Goal 1  
This course is designed to help students understand the process of interpersonal communication, to help them assess their strengths and weaknesses in interpersonal communication, and to assist them in acquiring and practicing skills that will make them better interpersonal communicators. The student will study pertinent research in the field of interpersonal communication and will make practical application of that research through individual and group situations.  
Prerequisite: College level reading

SPCH 1585  
Intercultural Communication  
(3 Lec; 3 Cr)  
Goals 5 & 8  
This course is a study of the attitudes, beliefs, and values of people in intercultural/multicultural communication. This course is designed to cultivate, promote, and increase understanding and tolerance of people outside our immediate culture and to increase our skill in communicating with diverse populations. Emphasis will be placed on cultures within the U.S., as well as various international cultures.  
Prerequisite: College level reading
SPCH 1586
Leadership & Group Communication
(3 Lec; 3 Cr)
Goals 7 & 9
This course is concerned with the study and practice of
the principles involved in oral reading. Included is an
analysis and presentation of literary selections represent-
ing a variety of genres and forms of interpretation.
Prerequisite: College level reading

SPCH 2565
Oral Interpretation
(3 Lec; 3 Cr)
Goal 6
This course is intended to provide the student with the
skills and understanding necessary to communicate in
any small group, whether it is a social club, a communi-
ty organization, classroom, or an executive committee
connected with a career. Term theory and skills will be
emphasized with segments on leadership, reasoning,
decision making, rules of order, conflict management,
creative thinking, listening, and verbal and nonverbal
communication.

STATISTICS

STAT 2551
Statistics I
(3 Lec; 3 Cr)
Goal 4
This course is an introduction to descriptive and inferen-
tial statistics for averages, probability, random variables,
interval estimation, and population hypothesis tests. The
course includes use of computer programs.
Prerequisite: MATH 0094 (MATH 1521 is recommended,
but not required), reading intensive

STAT 2552
Statistics II
(3 Lec; 3 Cr)
This course is an introduction to design of experiments,
two population hypothesis testing, regression and corre-
lation, analysis of variance, time series analysis, and deci-
sion theory. The course includes use of computer pro-
grams.
Prerequisite: STAT 2551 (MATH 1521 is recommended,
but not required), reading intensive

STUDENT SUPPORT SERVICES

SSS 1425
Math and Science Anxiety
(1 Lec; 1 Cr)
The Math and Science Anxiety workshop will provide
participants with an understanding of and techniques in
reducing their math and science anxieties. The natural
learning process will be explored. Stress and change will
be addressed, as will time management and all factors
in reducing anxieties in college-level classes, particularly
math and science. This course is offered only to Student
Support Services (REACH) participants.

SSS 1435
Understanding Relationships
(1 Lec; 1 Cr)
This workshop will introduce students to the stages and
nature of interpersonal relationships. Through a variety of
formats, participants will explore relationship issues and
develop the skills needed to build healthier interactions
with friends, peers, and family members. Conflict man-
agement and the grieving process will be explored to
improve healthy coping skills. This course is open only to
Student Support Services (REACH) students.

SSS 1455
College Survival Seminar
(2 Lec; 2 Cr)
This course offers an orientation to the college and its
services designed to give new students a positive intro-
duction to college life. Topics will include college
expectations, academic services, campus orientation,
educational goals, financial aid, and barriers to college
success. Students will develop a personal academic
plan for themselves at Mesabi Range Community &
Technical College. This course is offered only to Student
Support Services (REACH) participants.

SSS 1465
Resume Works
(1 Lec; 1 Cr)
This course is a resume preparation course that guides
students to assess their job-related skills and abilities,
define job objectives, and prepare a finished resume
that will meet employers’ expectations. The course will
focus primarily on resume writing and briefly cover the
other aspects of the job search. This course is offered
only to Student Support Services (REACH) participants.
SSS 1475
Power Communication Skills
(1 Lec; 1 Cr)
This workshop provides students with an opportunity to assess their personal communication styles and learning skills to enhance their abilities to communicate effectively. Students will explore the dynamics of conflict resolution, anger management, assertive communication, and sex-role stereotypes as they apply to communication. This course is only open to Student Support Services (REACH) participants.

SSS 1485
Prejudice Reduction
(1 Lec; 1 Cr)
This course addresses the emotional and institutional impact of discrimination, misinformation, and powerlessness which keeps prejudice in place. Participants will learn how to welcome diversity, unfreeze prejudicial attitudes, and interrupt oppressive remarks and actions. This course is open only to Student Support Services (REACH) participants.

SSS 1495
Conflict Management
(1 Lec; 1 Cr)
This course is designed to explore various conflict resolution theories and techniques. Students will discover their own personal styles of conflict management and compare this style to other styles. Application of theory and techniques will be practiced throughout this course. This course is open only to Student Support Services (REACH) students.

SSS 1496
Personal Management Techniques
(1 Lec; 1 Cr)
This course will look at the physical and emotional effects of stress on the human body, the consequences of repeated/long-term stress, and what one can do to minimize and combat stress. In addition, the class will explore the A/B personality types and self-management skills to control self-imposed stress. Finally, information will be provided to enhance self-management of time and physical activity to moderate stress. This course is offered only to Student Support Services (REACH) participants.

THEATRE

THTR 1555
Introduction to Theatre
(3 Lec; 3 Cr)
Goal 6
This course surveys theatre as an art form and a medium of communication. It examines theatre from primitive rites to contemporary forms and includes architecture, lighting, scenery, costuming, makeup, plays, directing, acting, and criticism.
Prerequisite: CPT score of 72 or “C” or better in READ 0082

THTR 1565
Beginning Acting
(3 Lec; 3 Cr)
Goal 6
The student will learn acting as a creative process. This course will include movement exercises, improvisation, voice work, and relaxation techniques. Students will gain an understanding of and involvement in the rehearsal process. Participation in selected scenes from plays will be required.

THTR 2315
Theatre Practicum
(Studio/Demonstration/Internship; 1 Cr)
The Theatre Practicum credit is available for students who participate in the theatre productions on campus at Mesabi Range. Experience in backstage areas and front-of-house operations or rehearsal and performance of a role in Mesabi theatrical or musical productions. Credit can be received for work in one of the following areas: performance, box office/marketing, costumes, scenery, properties, lighting/sound, makeup and stage management before/during performance runs for Mesabi Theatre productions.

THTR 2555
Introduction to Play Directing
(3 Lec; 3 Cr)
Goal 6
This course is designed to familiarize the student with different concepts of play directing. Special emphasis will be placed on production procedures, central staging, and the fine fundamentals of play directing.
Prerequisite: CPT score of 72 or “C” or higher in READ 0082, THTR 1565
WELDING

WELD 1221
Intro to SMAW
(1 Lec; 1 Cr)
The purpose of this course is to introduce the student to the Shielded Metal Arc Welding Process and the related safety practices through National Skills Standards established by the federal government and the American Welding Society. These standards are referenced in AWS EG2.0, Guide for Training and Qualification of Welding Personnel – Entry Level Welder. The student will become familiar with SMAW principles and techniques, ANSI/AWS Z49.1 safety standards, metallurgy, electrical principles, and filler metals and how to apply them to all weld types in all welding positions. Welding terminology and typical job communications will be covered.

WELD 1222
Basic SMAW Skills
(2 Lab; 2 Cr)
The purpose of this course is to build skills in welding mild steel using E6010 and/or E6011 electrodes with the Shielded Metal Arc Welding Process. The student will become familiar with SMAW principles and techniques, practical safety standards, and filler metals and how to apply them according to AWS D1.1 Code in 1F, 2F, 3F, 4F, 1G, 2G, 3G & 4G positions. Students will be evaluated on their performance in a work-like environment.

WELD 1223
SMAW Low Hydrogen Skills
(2 Lab; 2 Cr)
The purpose of this course is to build skills in welding mild steel using E7018 (Class F4) electrodes with the Shielded Metal Arc Welding Process. The student will become familiar with SMAW principles and techniques, practical safety standards, and filler metals and how to apply them according to AWS D1.1 Code in 1F, 2F, 3F, 4F, 1G, 2G, 3G & 4G positions. Students will be evaluated on their performance in a series of visual tests and bend tests conducted in a work-like environment.

WELD 1224
SMAW Alloved Metals Skills
(2 Lab; 2 Cr)
This course covers the AWS National Skills Standards related to welding alloyed materials and dissimilar metals with the Shielded Metal Arc Welding Process. The student will become familiar with SMAW principles and techniques, practical safety standards, and filler metals and how to apply them according to AWS D1.1 Code in 1F, 2F, 3F, 4F, 1G, 2G, 3G & 4G positions. Students will be evaluated on their performance in a series of visual and destructive tests conducted in a work-like environment.

WELD 1231
Intro to Thermal Cutting Processes
(1 Lec; 1 Cr)
This course covers the AWS National Skills Standards related to Thermal Cutting Processes and the related safety practices. The student will become familiar with process components, limitations, advantages and disadvantages of the OFC, PAC, CAC-A, and other various types of thermal cutting processes.

WELD 1232
Oxy-fuel Processes
(4 Lab; 4 Cr)
This course covers the AWS National Skills Standards related to oxy-fuel cutting (manual & machine), welding and brazing processes and the related safety practices. The student will practice the various processes on applicable materials in various positions. Students will be evaluated on their performances in a work-like environment.

WELD 1233
Arc Cutting and Gouging Processes
(1 Lab; 1 Cr)
This course covers the AWS National Skills Standards related to PAC-A and CAC-A cutting and gouging processes and the related safety practices. The student will practice the processes on carbon steel, stainless steel, and aluminum. Students will be evaluated on their performances in a work-like environment.
WELD 1241  
**Blueprint Reading**  
(1 Lec; 1 Cr)  
This course covers the AWS National Skills Standards for acquiring the basic knowledge and skills in practical blueprint reading and interpretation. Welding symbols and industrial welding and assembly prints are studied.

WELD 1251  
**Assigned Projects**  
(1 Lab; 1 Cr)  
This course covers the knowledge and skills to complete a typical job order as required by industry. The student will be assigned a project that expands upon the competencies learned in WELD 1221, 1222, 1223 & 1224.  
Prerequisite: WELD 1221; WELD 1222; WELD 1223; WELD 1224

WELD 1255  
**Welding Mathematics**  
(1 Lec; 1 Cr)  
This course covers the AWS National Skills Standards related to the mathematics involved in typical everyday usage in the field of welding.

WELD 1261  
**Gas Metal Arc Welding**  
(1 Lec; 4 Lab; 5 Cr)  
This course covers the AWS National Skills Standards related to the gas metal arc welding process and the related safety practices. The student will become familiar with GMAW fundamentals, equipment, metal transfer processes and shielding gases related to GMAW. Light to heavy ferrous and non-ferrous materials will be welded in the 1F, 2F, 3F, 4F, 1G, 2G, 3G & 4G positions utilizing various techniques.

WELD 1271  
**Gas Tungsten Arc Welding**  
(1 Lec; 4 Lab; 5 Cr)  
This course covers the AWS National Skills Standards related to the gas tungsten arc welding process and the related safety practices. The student will become familiar with GTAW fundamentals, equipment, filler metals and shielding gases related to GTAW. Mild steel, stainless steel, and aluminum will be welded in multiple positions.

WELD 1281  
**Flux Core Arc Welding**  
(2 Lab; 2 Cr)  
This course covers the AWS National Skills Standards related to the flux core arc welding process and the related safety practices. The student will become familiar with FCAW fundamentals, equipment, metal transfer processes and shielding gases related to FCAW. Mild steel will be welded in the 1F, 2F, 3F, 4F, 1G, 2G, 3G & 4G positions.

WELD 2240  
**Intro to Welding Process I**  
(1 Lec; 1 Cr)  
The purpose of this course is to continue with the methods used for shielded metal arc welding in pipe welding applications. It will also introduce the student to equipment setup, electrical principle, electrodes, gases and methods used in the flux cored welding process as it applies to pipe and pipe with an emphasis on pipe welding.  
Prerequisite: A 2.5 or better average in WELD 1253 or consent of instructor

WELD 2241  
**Shielded Metal Arc Welding – Pipe**  
(3 Lab; 3 Cr)  
The purpose of this course is to afford the student the opportunity to become proficient in welding pipe to AWS D1.1 and -API 1104 codes using the shielded metal arc process.  
Prerequisite: A 2.5 or better average in WELD 1242 and 1243, or consent of instructor

WELD 2242  
**Advanced Blueprint Reading**  
(2 Lec; 2 Cr)  
This course covers mechanical drafting and welding symbols, sketching and drawing of simple assemblies and subassemblies, and applied metrics dimensioning and testing. This course will also cover the principles and methods of layout fabrication by means of scaling and modeling.  
Prerequisite: A 2.5 or better average in WELD 1246 and 1247, or consent of instructor
WELD 2243  
**Flux Core Arc Welding II**  
(3 Lab; 3 Cr)  
The purpose of this course is to afford the student the opportunity to become proficient welding plate, pipe, and structural steel in all positions using flux core arc welding (self and dual shield) processes. AWS D1.1 codes will be followed.  
**Prerequisite:** A 2.5 or better average in WELD 1256, or consent of instructor

WELD 2244  
**Template Development I**  
(2 Lec; 2 Cr)  
The purpose of this course is to acquire the skills necessary to develop templates used for pipe joint geometry layout and fabrication.  
**Prerequisite:** Successful completion of any developmental math course

WELD 2245  
**Fabrication and Repair I**  
(4 Lab; 4 Cr)  
This course familiarizes the student with the knowledge and skill required to complete a typical job order in industry using a variety of powered machinery, jigs, fixtures and equipment. The student will use past competencies and expand on them to complete assigned projects.

WELD 2250  
**Intro to Welding Processes II**  
(1 Lec; 1 Cr)  
The purpose of this course is to introduce the student to equipment setup, electrical principle, electrodes, gases and methods used in the gas metal arc welding, self-shielding metal arc, and gas tungsten arc welding processes as it applies to sheet, plate, tube and pipe.  
**Prerequisite:** A 2.0 average or better in Weld 2240, or consent of instructor

WELD 2251  
**Gas Metal Arc Welding II**  
(3 Lab; 3 Cr)  
The purpose of this course is to afford the student the opportunity to become proficient welding plate, pipe, sheet steel, stainless steel and aluminum in all positions using gas metal arc welding (spray, short circuit) processes. AWS D1.1 codes will be followed.  
**Prerequisite:** A 2.0 or better average in WELD 2243 and concurrent enrollment in WELD 2250, or consent of instructor

WELD 2252  
**Gas Tungsten Arc Welding II**  
(3 Lab; 3 Cr)  
The purpose of this course is to afford the student the opportunity to become proficient welding tube and sheet steel, stainless steel and aluminum in all positions using gas tungsten arc welding processes. AWS D1.1 and 1.7 codes will be followed.  
**Prerequisite:** Concurrent enrollment in WELD 2250, or consent of instructor

WELD 2253  
**Template Development II**  
(1 Lec; 1 Cr)  
The purpose of this course is to acquire the skills necessary to develop templates used for pipe joint geometry layout and fabrication.  
**Prerequisite:** A 2.0 average in WELD 2244

WELD 2254  
**Fabrication and Repair II**  
(3 Lab; 3 Cr)  
This course familiarizes the student with the knowledge and skill required to complete a typical job order in industry using a variety of powered machinery, jigs, fixtures and equipment. The student will use past competencies and expand on them to complete assigned projects.

WELD 2275  
**Stainless Steel Welding**  
(3 Lab; 3 Cr)  
This course covers the physical and mechanical properties of stainless steel as applicable to the welder. A variety of stainless steel weldments will be made in all positions. Destructive testing will be done on some weldments and the effects of technique, heat, and metallurgy will be examined.  
**Prerequisite:** A 2.5 GP in Weld 1249 or consent of instructor.
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Diploma Mesabi Range Community & Technical College
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Certified Welding Inspector, American Welding Society

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Education, French, Concurrent Enrollment
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M.Ed. College of St. Scholastica
Ed.D. Hamline University

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M.A University of Wisconsin-Superior

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GIERMANN, KIMBERLEE
Biology, Chemistry
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M.S. University of Idaho

GIFFORD, JENNIFER
SSS Counselor
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M.S. Minnesota State University Moorhead

GILNESS, JANE
Learning Skills, Reading
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M.Ed. St. Mary’s University

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Mathematics, Statistics
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M.A. University of Georgia
Ph.D. University of Georgia

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Music
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B.S. Minot State University
M.M. University of North Dakota

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M.A. Miami University of Ohio

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Carpentry
Diploma Eveleth Technical College

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Human Services
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M.S.W. University of Minnesota

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Economics, Geography
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Ph.D. Utah State University

KEMPPAINEN-OLSON, DAWN
Educational Assistant Program
A.A. Mesabi Community College
B.S. University of Minnesota-Duluth
M.Ed. University of Minnesota-Duluth

KNIPFER, RICHARD
Carpentry

LERFALD, TALICIA
Art
A.S. Mesabi Community College
B.S. North Dakota State University
M.A. University of Wisconsin-Superior
M.F.A. University of Wisconsin-Madison

LIND, DANIEL
Athletic Director, Football Coach
A.A. Mesabi Range Community & Technical College
B.S. St. Cloud State University
M.Ed. Montana State University

LUVOVICH, LARRY D.
Music
A.A. Mesabi Community College
A.A.S. Mesabi Community College
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M.L.S. University of Minnesota-Duluth

MARKOVICH, RONALD
Maintenance Mechanics
Diploma International Correspondence
B.S. Bemidji State University

MATTSON, KEITH, Ph.D.
Industrial Technology
B.S. Purdue University
M.S. Purdue University
Ph.D. Purdue University

MATUSZAK, SARA
Counselor
A.A. Mesabi Community College
B.S. University of Wisconsin-Stout
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Post-Master’s Ed. Ad. St. Mary’s College

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Diploma Mesabi Range Community and Technical College

MCLAUGHLIN, PAUL
Graphic Arts
Certificate Hennepin Technical Center
B.A.S. University of Minnesota-Duluth
M.Ed. University of Minnesota-Duluth

MEDURE, SUSAN M.
Business, Sociology
A.A. Mesabi State Junior College
B.S. University of Minnesota-Duluth
M.Ed. University of Minnesota-Duluth
MROZ, DOUG
Welding
Certified Welding Educator – American Welding Society
Certified Welding Inspector – American Welding Society
OSHA 300 Trainer-Occupational Safety and Health Administration
A.A. Mesabi Community College
A.S. Mesabi Community College
B.A. University of Minnesota-Duluth
M.E.H.S. University of Minnesota-Duluth

MUHICH, MARK A.
Criminal Justice, Political Science, Business Law
B.A. Augsburg College
J.D. Hamline University

NORCIA, ROXANNE
Practical Nursing
B.A. The College of St. Scholastica

NORCIA, SCOTT
Electrical & Industrial Automation Engineering Technology
Diploma Eveleth Area Vocational Technical Institute
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Mathematics
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Psychology, Computer Applications
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Administrative Office Specialist Program
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RIENDEAU, MARY KAY
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English
B.S. University of Minnesota-Duluth
M.Ed. University of Minnesota-Duluth

ROGERS, ANGIE
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B.A. Nursing The College of St. Scholastica

SAGER, NATHAN
Philosophy
B.A. Gustavus Adolphus
M.Div. Lutheran School of Theology–Chicago
D. Min. Luther Seminary

SAUKKO, RICHARD
Art
B.A. University of Minnesota-Duluth
B.F.A. University of Minnesota-Duluth
M.A. University of Wisconsin-Superior

SCHROEDER, ROBERT
Masonry

SCOTT, BRADLEY
Physical Education, Baseball Coach
B.S. University of Wisconsin-Superior
M.A. Bemidji State University

SEPPA, CARMEN O.
Spanish
B.S. Manuela Canizares-Quito, Ecuador
M.S. University of Minnesota-Duluth
SHEREK, BECKY
Paramedics
LPN Eveleth Area Vocational Technical Institute
A.S. Hibbing Community College
A.A. Hibbing Community College
B.S. Bemidji State University
M.A. California College of Health Services

SISKAR, KATHLEEN
Speech
B.S. University of Minnesota-Duluth
M.A. University of Wisconsin-Superior

SLATTERY, JASON
Physics
B.S. University of Wisconsin – Stevens Point
M.S. University of Iowa

STACKPOOL, THOMAS
Physical Education, Men’s Basketball Coach
B.A. University of Minnesota-Morris
M.S. University of North Dakota-Grand Forks

STARR DUSTRUDE, SUZANNE
Sociology
B.A. Hamline University
M.Ed. University of Minnesota-Duluth

STEVENS, ROBERT
Electrical & Industrial Automation
Engineering Technology
Diploma Eveleth Area Vocational Technical Institute
B.S. University of Wisconsin-Stout
M.S. Indiana State University

SUTTON ONGALO, KRISTI
English
B.A. Gustavus Adolphus College
M.A. Hamline University

TORREL, JEFFREY
Nursing
A.S. Hibbing Community College
B.A. The College of St. Scholastica

WHITE, ANDREW
Mobile Equipment Services Technician
Diploma, Range Technical College, Hibbing
Diploma, Range Technical College, Virginia

ZBOSNIK, DANIEL
Physical Education, Women’s Basketball Coach,
Women’s Softball Coach

STAFF

ALTOBELLI, CINDY
Student Services & Student Support Services
Specialist

ANDERSON, JUDY
Accounting Officer

ANDERSON, SHARMARINE
Registrar

BIONDI, SHERI
eFolio MN Program Coordinator
B.S. Bemidji State University

BIRD, CINDY
Accounting Clerk NESU

BRIGGS, STEPHEN
Advisor/Counselor
A.A. Rainy River Community College
Dale Carnegie Course

BRULA, KATHY
Bookstore Coordinator

BURIA-FALKOWSKI, DEB
Personnel Aide, Sr.
A.S. Normandale Community College

CROTTEAU, JENNIFER
Interim Upward Bound Director
B.S. Moorhead State University
M.A. University of Minnesota-Duluth
FLAHERTY, STEVEN
Fire Program Manager
A.A.S. Lake Superior College
Firefighter II, Hazmat Specialist
Fire Chief (City of Grand Rapids)

GERZIN, COLLEEN
Custom Training Director
A.A. Vermilion Community College

GORMAN, MARY
Office Support Specialist
A.A.S. Mesabi Range Community and Technical College

GREGG, JEFF
Recruiting and Marketing – Technical Programs
Perkins Coordinator
B.A. University of Minnesota-Duluth

GRITZMACHER, KATHRYN
B.B.A. University of Minnesota-Duluth

HIETALA, JERI
Library Assistant

HILL, ELLING DWIGHT
College Lab Assistant – Carpentry
Diploma Lake Superior College

JACOBSON, DEBRA
Continuing Education, Custom Training Support Specialist
Diploma Eveleth Technical Institute
A.A. Mesabi Community College
B.S. St. Cloud State University

JANKOWSKI, MICHAEL
General Repair Worker

JARVI, MARIE
Academic Coordinator
True North Upward Bound
A.A. Mesabi Range Community & Technical College
B.S. University of Wisconsin-Superior

JOHNSON, KIM
Library Technician

JUGOVICH, SHELLY MCCAULEY
Director of Technology
B.S. Capella University

KARPIK, CHARLENE
Director of Instructional Studies
B.A. College of St. Scholastica

KLINK, ROBERTA
Faculty and Administrative Support Specialist

KNIPFER, CINDI
College Foundation Executive Director

KOCHVAR, BRENDA
Enrollment Services and Public Information Director
A.A. Mesabi Community College
B.S. University of Hawaii-Honolulu

KORPI, LAURA
Emergency Medical Services
Custom Training Director
A.A.S. Mesabi Community College
Paramedic Diploma, Medical Support Services of Duluth
Emergency Medical Technician
Firefighter

KUGEL, DANIEL
ITS1
Computer Applications, Mesabi Range Community & Technical College
A.A. Mesabi Range Community and Technical College

KUOPUS, PHILIP
General Repair Worker

KVAS, LISA
eFolio MN Program Manager
B.S. North Dakota State University
M.S. Capella University
LAHTI, LINDSEY
Disability Services/ Learning Center Director
B.S. Bemidji State University
M.S. Capella University

LAMPPA, GREG
Physical Plant Supervisor

LANFRANCHI, JEFF
Certificate Mesabi Range Community and Technical College

MAYER, JEFFREY
Safety and Health
A.A. Vermilion Community College
E.M.T. Basic, Firefighter I
Wildland Certified Mesabi Range Community & Technical College

MCGOVERN, SUE
General Maintenance Worker

MCGRAW, JOSH
Upward Bound Math/Science Assistant Director
B.A. The College of St. Scholastica

MERKEL, GREG
General Maintenance Worker

MERRITT, RAINEE
General Maintenance Worker

MINERICH, LARRY
General Maintenance Worker

OMERSA, ROSANNE
Receptionist, Enrollment Services Specialist
Diploma Eveleth Area Vocational Technical Institute

PASCHKE, LORI
Accounting Technician
A.A. Mesabi Community College
B.A. University of Minnesota-Duluth

PERRAULT, KEITH
General Maintenance Worker

PETERSON, BETH
Human Resources Representative
A.A. Mesabi Range Community & Technical College

PONTINEN, JODI
Financial Aid Assistant
A.A.S. Mesabi Range Community & Technical College

PRATT, TOM
Information Technology Specialist 2
CNET Program, Mesabi Range Community & Technical College

RICHARDS, ROXANNE
Director of Customized Training/Continuing Education
B.A. Metropolitan State University
M.Ed. University of St. Thomas

ROGERS, CASSANDRA
Upward Bound Math/Science Academic Coordinator
B.S. Bemidji State University

SCHAD, KERRY
Academic /PSEO/International Student Advisor
B.S. Bemidji State University

SCOTT, JOANNE
MnSCU Student Activities Coordinator, Volleyball Coach
B.S. University of Minnesota-Duluth

SIEBERT, KENNETH
College Lab Assistant – Maintenance Mechanics

SPAETH, SUSAN
Account Clerk Senior
Certificate Minnesota School of Business

STEVINSON, REBECCA
Records
B.S. Truman State University
SWIFT, DANA
Faculty and Administrative Support Specialist
U.S. Navy Administrative School Certificate
A.S. University of Phoenix

THOMPSON, SALLY
NESU
A.A. Vermilion State Junior College

TOLBERT, RICHARD
General Maintenance Worker

TWADDLE, SUZANNE
Enrollment Services Specialist

vanDYKE, MARTHA
Continuing Education, Custom Training Support Specialist
A.A. Hibbing Community College
A.A.S. Hibbing Community College
B.A. The College of St. Scholastica

VAUGHN, ALICE
Office Support Specialist

WALTERS, GEORGE
Financial Aid Director
A.A. Mesabi Community College
B.A. Gustavus Adolphus College
B.S. Bemidji State University
M.A. College of St. Scholastica

WERSCHAY, EMILY
Upward Bound Administrative Assistant
B.A. The College of St. Scholastica

WIIRRE, LARAE
Financial Aid Assistant

WILLARD, JENNIFER
Advisor, Public Information
B.A. The College of St. Scholastica
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Mesabi Range Community and Technical College’s Academic Forgiveness Policy is intended to give the undergraduate student, who has been away from MRCTC at least 5 years, an opportunity to establish a new GPA.

1. The student must have been absent from MRCTC for a minimum of 5 consecutive years prior to the “petition for academic forgiveness” in order to be eligible.

2. Students who wish to apply for “Academic Forgiveness” should pick up a petition form from the Records Office, give reasons for the previous poor performance, and provide information about current educational plan for success.

Upon readmission, the student must demonstrate adequate academic ability by completing 12 undergraduate credits at MRCTC with a minimum GPA of 2.0. “Forgiveness will be noted and granted only after the semester back is successfully completed under the above criteria.

Once the criteria for the forgiveness policy has been met, the Registrar will make the following adjustments to the student’s transcript:

► The transcripts will be separated into two sections – indicating the point of academic forgiveness. Academic Forgiveness will be indicated on the transcript.

► No credits will be granted for any course/s completed at MRCTC prior to the date of the “Academic forgiveness.”

► Calculation of the student’s GPA will not include grades received prior the to the point of academic forgiveness.

► **Academic Forgiveness will not be granted if a student has earned a post-secondary degree and has applied MRCTC credits toward that degree.**

**CONSIDERATION TO POLICY:**
If a student switches from a transfer/general education track to a vocational/technical track, each will be reviewed on a case-by-case basis. The five-year gap in enrollment to receive academic forgiveness may be waived.