2017-2018
Academic Catalog

MESABI
Range College

Lead The Way.
Virginia Campus:
1001 West Chestnut Street
Virginia, MN 55792
218-741-3095 • 800-657-3860
For TTY communication, contact the Minnesota Relay Service at 7-1-1 or 1/800-627-3529
Fax: 218-748-2419

Eveleth Campus:
1100 Industrial Park Drive • P.O. Box 648
Eveleth, MN 55734
218-741-3095 • 800-657-3860
For TTY communication, contact the Minnesota Relay Service at 7-1-1 or 1/800-627-3529
Fax: 218-744-7466

Visit us at [www.mesabirange.edu](http://www.mesabirange.edu)

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

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

Higher Learning Commission
A Commission of the North Central Association of Colleges and Schools
230 South LaSalle Street, Suite 7-500, Chicago, IL 60604
(312) 263-0456

Due to conditions beyond the control of Mesabi Range 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 MinnState policies.

An affirmative action, equal opportunity employer and educator. This document is available in alternative formats upon request, by contacting Disability Services, k.langdon@mesabirange.edu or 218-744-7471. Consumers with hearing or speech disabilities may contact us via their preferred Telecommunications Relay Service.
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Maps of Campus - [http://www.mesabirange.edu/about/map.html](http://www.mesabirange.edu/about/map.html)
Welcome to Mesabi Range College

Congratulations students!

You have made a wise decision in considering and selecting Mesabi Range College (MRC). We take pride in high academic standards, employment-ready and transfer programs, and learner-focused services and opportunities.

Excellence comes from excellence. Our academic standards are high because our experienced and exceptionally qualified faculty, staff, and administrators are committed to giving their best to our students. The College has been serving students from the region, state, and world for almost 100 years. Students are drawn to Mesabi because of our reputation as a learner-centered institution, the currency and timeliness of our programs, and our size. Students appreciate receiving personal attention if they need further explanation, help on a work in progress, or simply encouragement. In short, choosing Mesabi Range College will provide you with a cost-effective, supported educational opportunity that will prepare you for your future.

Education is about creating new possibilities for career and personal growth. As a result, many of our students in the technical programs often have jobs before they graduate, acquiring the skills most in demand in today’s workplace. Career program instructors work with area business and industry to plan and revise their programs to provide students with what they most need to compete successfully in a complex and increasingly global job market.

MRC offers its students outstanding math, science, and engineering courses alongside courses in fine arts, humanities, and the social sciences. True to its commitment to facilitate seamless transfer for its students, MRC maintains a dynamic and varied curriculum to fulfill the Minnesota Transfer Curriculum requirements for transfer. As a result of this attention to curriculum, Mesabi graduates transfer to four-year colleges and universities prepared to concentrate on their field of interest.

In addition to on-campus classes, MRC offers a wide variety of online classes each semester as well as distance learning through our new immersive telepresence learning platform. Our “Smart Classrooms,” simulators, computer labs, software learning programs, and other technology learning tools increase student attention and information retention by providing hands-on, interactive, real-time experiences. The state-of-the-art library and art gallery offer a quiet place to read, study, and think.

For extracurricular activities, the College’s athletic teams are state recognized and students can participate in football, volleyball, basketball, baseball, softball, trap, and golf. Other non-sport activities include music, art, creative writing, and live theatre.

Our staff is eager to assist you and answer any questions you might have about beginning, furthering, or enhancing your journey of lifelong learning. We are here for your success.

Mesabi Range College Faculty and Staff
EQUAL OPPORTUNITY COLLEGE

Minnesota State Colleges and Universities (MinnState) is committed to a policy of nondiscrimination in employment and educational 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 contacting the Minnesota Relay Service at 7-1-1 or 1/800-627-3529.

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 College 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 College strives to implement policies and programs that promote equal opportunity for people of protected groups.

Mesabi Range College 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 College population. Mesabi Range College 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 College ensures that no qualified person with a disability will be denied access to and participation in programs, services, and activities due to his or her disability. Mesabi Range College will not discriminate against students with his/her 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.

The College’s 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 Kevin Langdon, Learning Center (Room 100), Eveleth Campus. He can be reached at 218-744-7471 or for TTY communication, contact the Minnesota Relay Service at 7-1-1 or 1/800-627-3529. Any concerns, complaints, or other questions regarding ADA issues should be forwarded directly to Kevin Langdon.

MISSION STATEMENT
Mesabi Range College is a progressive, student-focused institution, located in the heart of northeastern Minnesota, preparing diverse learners for fulfilling careers, college transfer, and lives of intellectual curiosity and discovery.

VISION STATEMENT
Mesabi Range College will lead northeastern Minnesota in accessible, innovative, and high-quality educational and training opportunities.

GOAL STATEMENTS
1. **Focus on Learning and Learners**: Mesabi Range 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 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 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 College will develop a technological infrastructure to facilitate the delivery of courses and services using emerging technology.

5. **Growing Our Resources**: Mesabi Range 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 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
- **Excellence**: Mesabi Range College provides learners innovative instruction, timely curriculum, and rigorous standards.
- **Diversity**: Mesabi Range College promotes cultural awareness and supports underrepresented students.
- **Opportunity**: Mesabi Range College offers comprehensive and creative learning experiences in liberal arts, technical fields, and student life.
- **Community**: Mesabi Range College values and encourages mutual engagement with the community.
- **Innovation**: Mesabi Range College responds to education and training needs through emerging technology, online, distance learning, and satellite programs.
Self-Reflection: Mesabi Range College engages in progressive planning and continuous improvement through ongoing assessment.

Professional Development: Mesabi Range College supports and encourages the professional growth of faculty and staff to ensure high-quality instruction and services.

Partnership: Mesabi Range College fosters relationships with local, regional, and global business and education partners.

ACCREDITATION
Mesabi Range College is accredited by the The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools.

Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604
800-621-7440

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 Range Community & Technical College’s antecedent institutions, Eveleth Junior College (established 1918) and Virginia Junior College (established 1921), were consolidated in 1966, forming Mesabi State Junior 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 (currently MinnState) Board of Trustees formed the Northeast Higher Education District (NHED). Mesabi Range 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.

In 2014, the name of the College was officially changed to Mesabi Range College.
ASSESSMENT OF STUDENT LEARNING

Mesabi Range College believes in continuous improvement of its educational programs and services. It does so by gathering data using a variety of assessments in order to determine what works and what does not. At the classroom level, assessment is conducted to determine how well students are able to perform the tasks listed as course outcomes in the course outline.

Assessment is not only required to maintain accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools, but it also helps the College 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 across the curriculum. Processes and cycles of outcomes assessment occur throughout the institution.

Mesabi Range College is using a variety of 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 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 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 College works toward the creation of an informed citizenry with the ability to become responsible community/global citizens: to think critically and creatively; become competent in working with numerical data; knowledgeable in integrative and applied learning; effectively use information technology; and use written and oral language effectively and appropriately.
INSTITUTIONAL ACADEMIC GOALS (General Education Goals)

**Responsible Community/Global Citizenship**: Mesabi Range College will encourage students to understand diverse cultures and world views in order to effectively engage in local and global exchanges.

- Students will demonstrate an awareness of the differences in cultural norms within the college, their workplace or their own community.

- Students will demonstrate an awareness of the differences in cultural norms across communities with which they are likely to interact or which are playing a more prominent role in regional or global interactions.

- Students will demonstrate a disposition to adapt to an increasingly more diverse society.

- Students will demonstrate a disposition to examine their own attitudes and beliefs in order to interact effectively with people of diverse backgrounds or holding views different from their own.

- Students will practice democracy and promote citizenship.

- Students will show evidence of their evolving knowledge and skills and demonstrate new ways of thinking as it pertains to cultural diversity.

**Critical and Creative Thinking**: Mesabi Range College will prepare students to exhibit skills of critical and creative thinking that include open-mindedness, intellectual curiosity, analytical thinking and problem solving.

- Students will demonstrate the ability to apply their knowledge and skills to new problems and situations.

- Students will demonstrate the ability to make decisions informed by case analysis, theory, and collateral data and information.

- Students will identify and apply appropriate models of problem solving to challenging situations.

- Students will acknowledge and incorporate a value framework in various personal and professional situations.

- Students will demonstrate the ability to gather and summarize relevant information.

- Students will demonstrate the ability to select and use information to investigate or establish a point of view or to reach a conclusion.
**Quantitative Literacy:** Mesabi Range College will support students in developing confidence and competence in working with numerical data.

- Students will demonstrate numerical competency by applying basic methods of arithmetic to solve numerical problems.
- Students will demonstrate numerical competency by representing data in an appropriate form for further analysis.
- Students will demonstrate numerical competency by applying analytical skills to interpret numerical data.
- Students will demonstrate the ability to create and interpret mathematical models.
- Students will demonstrate their ability to summarize and derive inferences from various types of data.

**Integrative and Applied Learning:** Mesabi Range College will prepare students to synthesize and apply knowledge, skills, and abilities acquired in different disciplines and programs.

- Students will be able to integrate knowledge and ideas to write effectively on a topic that requires multi-faceted knowledge.
- Students will be able to integrate knowledge and ideas to speak effectively on a topic that requires multi-faceted knowledge.
- Students will be able to integrate knowledge and ideas to solve a technical, scientific, or mathematical problem that requires multi-faceted knowledge.
- Students will be able to integrate knowledge and ideas to create a work of art that requires multi-faceted knowledge.
- Students will be able to integrate knowledge and ideas to complete a project that requires multi-faceted knowledge.

**Information Literacy:** Mesabi Range College will empower and encourage students to use information technology effectively.

- Students will demonstrate the ability to use information technology to access information and data required for their assigned work.
- Students will demonstrate the ability to explore alternative strategies in the electronic search of information and data required for their assigned work.
- Students will demonstrate the ability to synthesize their knowledge of information and data acquisition required for their assigned work.
• Students will demonstrate the ability to organize the storage and efficient retrieval of information and data required for their assigned work.

• Students will demonstrate knowledge of the legal and ethical issues associated with the access and use of data and information obtained electronically and in other media.

• Students will demonstrate basic knowledge of email, word-processing, and spreadsheet software.

**Effective Communication:** Mesabi Range College will prepare students to use oral and written language appropriately and effectively in the various contexts of personal and professional life.

• Students will demonstrate the ability to communicate their ideas in writing using Standard English grammar and mechanics.

• Students will demonstrate the ability to communicate their ideas in writing using correct and appropriate vocabulary.

• Students will be able to write a clear, well-organized document appropriate to audience and purpose.

• Students will be able to read a document appropriate to their level of educational attainment and demonstrate comprehension of its content in their written work.

• Students will be able to work effectively in groups to accomplish a common task.

• Students will be able to choose the appropriate verbal and nonverbal communication to communicate ideas, reduce relational defensiveness, resolve conflicts, and show adaptability.

• Students will be able to present a well-organized speech appropriate to audience, purpose, and occasion.

• Students will be able to apply appropriate listening skills in various situations.

General Education assessment is accomplished at several points throughout the curricula (entry, in-progress, graduation, and 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 College.
DIRECTORY OF COLLEGE SERVICES

Mesabi Range College is committed to providing its students with opportunities for intellectual and social growth and development. Mesabi Range College’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 College. 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 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)
Hours will be posted.
The bookstore maintains books and supplies required to complete coursework at Mesabi Range College. New and used books, imprinted clothing, 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 and Mastercard is accepted.

Business Office – Virginia Campus
218-749-7742 or 218-749-7710
Hours will be posted.
Tuition and fees due to the College are paid at the Business Office window, on-line using eCheck. Checks should be made payable to Mesabi Range College. All financial aid is issued through this office.
Career Center - Student Services – Virginia Campus
218-749-7750
8:00 a.m. - 4:30 p.m.
All Mesabi Range College students are encouraged to use the services of the Career Center located on the Virginia Campus. 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 – Eveleth Campus
218-744-7471
8:00 a.m. - 4:30 p.m.
Mesabi Range College 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.

Computer Labs and Services
218-780-8063
218-744-7516
218-404-4222
218-780-4829
Hours will be posted.
Mesabi Range 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 and wireless access. 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)
Counseling services are provided on both campuses, either by appointment or on a walk-in basis, based on availability. Services include: academic, personal and career counseling. To maximize the counseling services, outside service providers are accessed to meet students’ needs when appropriate. A variety of support groups, workshops, and student success programs are instituted as necessary.
**Equity Services**

Kelly Bakk, Equity Coordinator, Title IX Compliance Officer, Student Services Suite, Virginia Campus, 218-749-7765

An increasing number of students are seeking training and jobs in fields that have been considered non-traditional for their gender. An equity coordinator at Mesabi Range College 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 Kelly Bakk.

**Disability Services**

Eveleth Campus: Disability Director - Learning Center – 218-744-7471
Virginia Campus: Disability Director - Room L130 – 218-749-0319

For TTY communication, contact the Minnesota Relay Service at 1-800-627-3529.

Hours will be posted.

Mesabi Range 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. Mesabi Range College 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 Mesabi Range College 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.

**Enrollment Services**

218-749-0313 (Virginia)
218-744-7506 (Eveleth)

[www.mesabirange.edu](http://www.mesabirange.edu)

8:00 a.m. - 4:30 p.m.

Individuals wishing to attend Mesabi Range College, or anyone needing more information on Mesabi Range College should 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.
Financial Aid – Virginia Campus
218-749-7753 or 218-749-7755
Hours will be posted.
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)
218-744-7462 (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
Housing Director, (218) 410-0974, Student Services Suite, Virginia Campus
For TTY communication, contact the Minnesota Relay Service at 1-800-627-3529
www.mesabirange.edu
Mesabi Range College has on-campus housing available (located on the Virginia campus) to Mesabi Range College students. Our apartment-style residence halls provide a comfortable, private environment at a reasonable cost. Each of our semi-furnished apartments have four bedrooms, two bathrooms, laundry room, kitchen, and living room. All utilities, cable, and wireless internet are included. The housing facility is operated by trained staff under the direction of the Residence Life Director. Students are required to purchase a mandatory meal plan associated with their residence at Alpine Village. Each day that class is in session, students will have breakfast and lunch provided through their meal plan. Contact Mesabi Range College’s Enrollment Services for more information or go to our website at www.mesabirange.edu.

To print FAQ’s, floor plan, housing contract, contract acceptance form, and/or handbook go to http://www.mesabirange.edu/future-students/housing/

Library – Virginia Campus
College Center
218-749-7712, Circulation Desk
Hours will be posted.
The library is a vital part of the College’s instructional programs and cooperates with classroom instructors to ensure Mesabi Range College 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 students, staff, and community use. The Mesabi Range College 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 80 libraries statewide.

**Learning Center**
218-749-0319 (Virginia)
218-744-7471 (Eveleth)
Open throughout the school day.
Mesabi Range College’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. To assist students with disabilities, technology can be accessed through the Learning Center.

**Multi-Cultural Services**
218-749-7750, Student Services, Virginia Campus
8:00 a.m. - 4:30 p.m. (or by special appointment)
Mesabi Range 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
218-749-7727 (Virginia)
218-744-7471 (Eveleth)
For TTY communication, contact the Minnesota Relay Service at 1-800-627-3529
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 his/her 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 – Virginia Campus**
218-749-7762
Hours will be posted.
Student academic records are maintained by the Records Office. Students may obtain transcripts through this office.

**Student Support Services – Trio Program (SSS)**
218-749-7750 (Virginia)
8:00 a.m. - 4:30 p.m. (or by special appointment)
The Student Support Services Program 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 apply for acceptance into the program by contacting the SSS Program Director.

**Tours**

Enrollment Services  
218-749-0314 (Virginia)  
218-744-7506 (Eveleth)  
[http://www.mesabirange.edu/](http://www.mesabirange.edu/)

By special arrangement. Visitors are always welcome at Mesabi Range College, 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 – Virginia Office**

Records Office  
218-749-7762  
Hours will be posted.

Information regarding veteran educational benefits 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 for processing. The application form is available online at [www.gibill.va.gov](http://www.gibill.va.gov).

**Veterans Affairs**

Coordinator  
218-262-6739

Mesabi Range College offers resources to assist veterans and their families in completing school.
ADMISSIONS
Mesabi Range College is committed to promoting equal educational and employment opportunities without regard to race, color, religion, gender, national origin, age, disability, sexual orientation, reliance on public assistance, or organizational membership.

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 College programs or services. If an interpreter is needed to communicate in a language other than English, please contact the Director of Disability Services at 218-744-7471 or 1/800-657-3860. For TTY communication, contact the Minnesota Relay Service at 7-1-1 or 1/800-627-3529.

College Visit Program
Find out if Mesabi Range College is right for you. We invite you to visit us anytime, Monday through Friday between the hours of 8:00 a.m. and 4:00 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 College for yourself. We offer:

• a meeting with a member of the Enrollment Services staff to discuss Mesabi Range College’s application and admissions procedures;
• a campus tour, conducted by students or staff members, to accommodate the 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: 218-749-0313
For TTY communication, contact the Minnesota Relay Service at 1-800-627-3529
b.kochevar@mesabirange.edu or k.langdon@mesabirange.edu

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

Enrollment Services – Eveleth Campus
Mesabi Range College
1100 Industrial Park Drive, PO Box 648
Eveleth, MN 55734
**Admissions Policy**

Mesabi Range 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. Application fee – Submit the required $20 non-refundable application fee (and then the transcripts).
3. Include the 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 Interim Provost. Students who have been suspended or expelled for disciplinary reasons from any postsecondary institution may be denied admission to Mesabi Range College.

**Proof of Immunization**

The immunization law states that no student can 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 the following:

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 the following:

- 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
Residents of Wisconsin, North Dakota, South Dakota, and Manitoba, Canada, 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.

ADMISSIONS 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 semester.** Early application and registration are 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, diploma, 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 or the Enrollment 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.

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 College programs or services. If an interpreter is needed to communicate in a language other than English, please contact the Director of Disability Services at 218-749-0325 or 1/800-657-3860. For TTY communication, contact the Minnesota Relay Service at 7-1-1 or 1/800-627-3529.
Freshmen

- Students who wish to register as freshmen must complete and submit a Mesabi Range College’s online application.
- After submitting the online 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 the college with proof of graduation date.
- Include all 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 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 a Mesabi Range College application or standard MinnState Application Form.
- Application fee – Submit the required $20 non-refundable 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 MinnState Injury & Sickness Insurance Mandatory Plan designed for international students. Students must maintain insurance coverage throughout the duration of attendance at MRC. Student coverage will be reverified every year. It is the student’s responsibility to make sure insurance is renewed every year of attendance. Mesabi Range College 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 College from a post-secondary institution need to comply with the College’s admission policies and must complete the following steps before enrolling:

- Complete and submit Mesabi Range College’s online application;
- Request that official transcripts from each of the secondary and any non-MinnState post-secondary institutions attended be sent to the Enrollment Services Office at Mesabi Range College;
- Provide documentation from graduates of non-Minnesota high schools (month and year) of immunization against mumps, measles, rubella, diphtheria, and tetanus, if born in 1957 or later.

Students who have been suspended or expelled for disciplinary reasons from any postsecondary institution may be denied admission to Mesabi Range College.

Advanced Standing
Mesabi Range 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 College 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 College’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 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 for which they register prior to the College receiving late transcripts.

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 the 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.
- Students planning to attend during their junior year must have a 3.0 cumulative GPA. Students planning to attend during their senior year must have a 2.5 cumulative GPA.

**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 College. Complete information and program requirements may be obtained by contacting the Enrollment Services Office at Mesabi Range College.

**PSEO Admitted Students**

Once admitted to Mesabi Range College, PSEO students will be held to the same academic standards as regular college students with the following exceptions:
- PSEO students have the first 10 days of the semester to drop courses from their class schedule.
- PSEO students must meet with their high school counselor and PSEO advisor before making any changes to their schedules to ensure that their high school graduation requirements are not in jeopardy.
- PSEO textbooks are the property of Mesabi Range College and must be returned at the end of each semester. Students will be held financially responsible if textbooks are lost or stolen.
- If placed on academic probation, the PSEO student may not be allowed to take classes the following semester.
- If placed on academic suspension, the PSEO student will be suspended from Mesabi Range College and from the PSEO program. The student will not be allowed to take classes the following semester. PSEO students do not have the right to appeal this policy.
- PSEO students may register for summer classes, but will be held financially responsible for tuition, fees, books and supplies.

All questions regarding the PSEO program may be directed to Jennifer Willard, Director of SSS, at (218) 749-0329.
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 College. All inquiries concerning the ongoing veterans’ program should be directed to the Records Office or visit the Veterans’ website at www.gibill.va.gov.

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

College Readiness Exam
All students who register for seven or more credits at Mesabi Range College 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 ensure that students are placed into classes appropriate to their ability; help students plan an effective course of study; and identify support services that will assist in achieving success at Mesabi Range College.

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 MinnState college in the last two years are not required to take the assessment again, provided they send a copy of the test scores to the Enrollment Services Office at Mesabi Range College. Students who have earned an A.A.S. degree or an Associate of Arts Degree are not required to take the CPT.

Students who have taken the ACT may not have to take the assessment depending on the scores they received. Please provide a copy of the ACT scores to the Enrollment Services Office.

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

Students with disabilities who need accommodation for CPT testing should contact Disability Services at 218-744-7471 (Eveleth). For TTY communication, contact the Minnesota Relay Service at 1-800-627-3529.

English as a Second Language (ESL)
Mesabi Range College 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 Mesabi Range College English instructors using a departmental devised scoring method.

Placement for Success
Placement for Success is a statewide MinnState policy that ensures students enter college coursework with the necessary skills 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 his/her chosen program. All certificate, diploma, and degree programs require students to have or to develop basic skills. In addition, some certificate and diploma programs, and all degree programs, require students to have or to develop intermediate and college level skills. Check the requirements of your program for specific information.

Students who believe their placement into any of these required developmental classes is inaccurate may make an appointment to retest by contacting the College’s Enrollment Services Office. 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 course 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 may 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 College has to ensuring the success of all students and to providing educational opportunities to those who enroll. Students who declare an A.A. major, and test into two or more developmental courses will be required to take LSK 1455 Studying in College their first semester.
REGISTRATION
The registration period for each semester is outlined in the College Academic 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 (if applicable)

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 your academic advisor. Students who enroll after the first day of classes will be required to complete 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. Students may 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. Students are encouraged to speak with Financial Aid when dropping/adding classes.

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 three 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 (twelfth 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 date on which 80% of the days in the academic semester have elapsed. Students may petition for a late “W” after that date. The petition must be signed by the instructor prior to the last day of class in the semester in which the course was taken. 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 cannot complete this process on line. 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. Students are encouraged to speak with Financial Aid when withdrawing from any or all classes.

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.

COLLEGE COSTS

Schedule of Fees

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

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. Online courses have an additional tuition cost per credit. Differential tuition is also charged per credit for certain college programs. Auditing courses require 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 removed from the class roster and will 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 62 years of age or older and who is a legal resident of Minnesota may be enrolled upon payment of $40.00 per semester credit plus any course or special fees in credit courses. Availability for senior citizens will be on a space available basis after all students who pay regular tuition and fees have been accommodated. Senior citizens are not eligible for a reduction in non-credit classes.

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 classes. 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.

Unpaid Balances
- The student is liable for payment of all classes for which they are registered at 4:30 pm on the 5th class day of any semester.
- By confirming this registration, for any semester, the student accepts any financial and academic obligations incurred as a result of this transaction. Failure to pay will result in the debt being referred to the state of Minnesota collection agency (Minnesota Department of Revenue, Collection Division) or a private collection agency. If this happens, the student agrees to reimburse Mesabi Range College the fees of any collection agency, which may be based on a percentage at a maximum of 40% of the debt, and all costs and expenses, including reasonable attorney’s fees, Mesabi Range College would incur in such collection efforts.
- The student also authorizes Mesabi Range College, and their respective agents and contractors, to contact them regarding the debt request, including repayment of the debt, at the current or any future number that the student provides for their cellular phone or other wireless device using automated telephone dialing equipment or artificial or pre-recorded voice or text messages.

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 (twelfth 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 Interim 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>

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 MinnState 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 Direct Loans
- Subsidized Federal Direct Loans
- Federal Perkins Loans
- Federal Direct PLUS Loans
- Federal Pell Grants 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.

A student who withdraws must contact his/her 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 or the last date of attendance reported by the instructor. Students who do not officially withdraw can therefore anticipate that a minimum of 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 thirty (30) 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 13A 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 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 sessions, 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 or colleges 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 repayment arrangements have been made.
FINANCIAL AID

Mesabi Range 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 2016-2017 rates, the budget of a typical Minnesota resident student living on campus for one academic year includes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$5,264.00</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Housing/food</td>
<td>$6,932.00</td>
</tr>
<tr>
<td>Travel/misc</td>
<td>$4,500.00</td>
</tr>
<tr>
<td></td>
<td>$17,696.00</td>
</tr>
</tbody>
</table>

Several of the occupational programs have tool costs which may range from $300 to $3,500.

Financial Aid and College Costs

The cost of education is a combination of direct costs (school costs) and indirect costs (cost of living expenses). The school costs are based upon tuition, fees, books, and supply costs. Costs are based upon a student load of 15 credits per semester. The student (and student’s parents for dependent students) must make a realistic effort to contribute toward meeting school expenses. The primary responsibility for paying for school rests with the student and his/her family. Financial aid is intended to supplement, not replace, financial support from you and your family. Financial aid may be federal or state money that assists students in paying for their post-secondary education. Mesabi Range College knows that every student has a somewhat different financial situation and therefore may be able to review the student’s and parent’s ability to contribute when circumstances change. A financial aid award package may consist of funding from a combination of financial aid programs and is designed to help meet your financial needs.

How To Apply For Financial Aid

Students must first apply for admission to Mesabi Range College. Applicants need to complete the Free Application for Federal Student Aid (FAFSA) based upon completed tax return and wage information. Students may apply online at www.fafsa.ed.gov. The process takes up to two weeks, so students should apply as early as possible after October 1. 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.

Separate applications are needed for Federal Direct Loans, MN SELF Loans, Federal PLUS Loans, and Federal Perkins Loans. First time borrowers of Federal Direct 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 application information is located on the Mesabi Range College website on your e-services account under the financial aid link.
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 $297 to $5,920. Pell Grants are disbursed to the student account 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. Eligibility for Federal Pell grants is for a total equivalance of up to 6 full-time academic years as an undergraduate.

MN State Grant Program - Annual awards range from $100 to $1,200. MN State Grants are disbursed to student accounts 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 a total equivalance of up to four academic years as an undergraduate. 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 $250 to $500. Grants are disbursed to student accounts 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) - Federal and State work study provides employment for those students who have financial need and who want to 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 five and ten work study hours per week. Students may work more hours during the summer and other vacation periods.

Loans
Federal Direct Loan Program (Subsidized and Unsubsidized) - Loan amounts vary depending upon the student’s year in college. Freshman dependent students can borrow up to $5,500; sophomore dependent students can borrow up to $6,500. 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 Alternate loans including 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. (Federal Perkins Loans are based upon financial need and are at a 5% interest rate.) 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, available online: [https://www.ohe.state.mn.us/ssl/MISPApp/mispApp1.cfm](https://www.ohe.state.mn.us/ssl/MISPApp/mispApp1.cfm). 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 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 your local MN Workforce Center.

**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-served basis. Applications are printable from the Financial Aid page on the Mesabi Range College website. Contact the Financial Aid office for further information and 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 warning for one term. If the deficiencies are not corrected during the subsequent 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 subsequent term, the student has met the institution’s qualitative and quantitative standards for all courses in which he or she was enrolled but has not met Mesabi Range College’s cumulative standards, the student may be permitted to retain financial aid eligibility under an Academic Plan, until such time as the following:

- The student has met the College’s 2.0 GPA and 67% cumulative 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% cumulative completion rate or the terms of the academic plan for the courses during the subsequent term. 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 maximum time frame allowed in 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 academic warning upon his/her 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 150% of the published number of credits of the declared program (typically 90 semester credits), 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 (90 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 hour class carries one semester hour of credit.

Academic Forgiveness Policy
Mesabi Range College’s Academic Forgiveness Policy is intended to give the undergraduate student, who has been away from Mesabi Range College at least five (5) years, an opportunity to establish a new GPA. The student must have been absent from Mesabi Range College for a minimum of five consecutive years prior to the “Petition for Academic Forgiveness” in order to be eligible. Students who wish to apply for “academic forgiveness” should meet with their advisor, complete a student petition form, give reasons for the previous poor performance, and provide information about current educational plans for success. The Suspension/Probation Committee will review the petition and determine whether academic forgiveness is a better approach than use of the repeat policy. Upon readmission, the student must demonstrate adequate academic ability by completing 12 undergraduate credits at Mesabi Range College with a minimum GPA of 2.0. “Forgiveness” will be noted and granted only after the first semester back is successfully completed under the above criteria.

Academic Grade Appeal Policy
Instructors at Mesabi Range College are empowered to make final decisions on all student grades subject to MinnState 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 on the website.
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 violate intentionally Mesabi Range College policies, such as tampering with grades; sabotaging another student’s work, etc.

It is the policy of Mesabi Range College to uphold resolutely 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 G.P.A. of 3.5 – 3.74 will be recognized on the Honors list. High Honors will be granted to students achieving a 3.75 – 4.0 G.P.A. All registered courses must be completed.

**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, per credit, 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. Students must meet with an advisor.

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 follows:
• 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 by their office doors.

Field Placements
It is the policy of the Mesabi Range 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>FN Failure for nonattendance</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></td>
</tr>
<tr>
<td>X Continuation of another course or courses is necessary because grades cannot be determined until the full sequence is completed.</td>
<td></td>
</tr>
<tr>
<td>** No grade submitted by an instructor as of printed grade reports.</td>
<td></td>
</tr>
</tbody>
</table>

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 StarID and password 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).

**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)

**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 Pass/Fail 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 Pass/Fail with not more than 5 Pass/Fail credits in any one semester.

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 are awarded for remedial course work (below 1000 level). Students may receive financial aid for developmental credits up to a maximum of 30 semester hours.

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 (G.P.A.) is the quotient of the student’s grade point total divided by the grade point credits. Each grade report shows the student’s G.P.A. for the term and cumulative G.P.A. since admission. “P” does not carry a grade point value and, as such, is not calculated in the G.P.A. A “P” will not improve the student’s G.P.A.; 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.
Students cannot receive financial aid to attempt a course a third time if they have previously passed the course at least once.

**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 of 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 College.

**Supervised Occupational Experience (SOE)**
Since job placement is a primary goal of Mesabi Range College’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**
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 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.

**Satisfactory Academic Progress Policy**
Mesabi Range College requires that students make Satisfactory Academic Progress (SAP) toward a degree or certificate to remain in good standing. Additionally, federal and state law requires that a recipient of financial aid make satisfactory academic progress towards 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 the student with improving their academic standing. Advising 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 and seek assistance.

Requirements:

1. **Qualitative Measure:**

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

<table>
<thead>
<tr>
<th>Cumulative Registered Credits</th>
<th>Minimum Required GPA</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>

2. **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:

<table>
<thead>
<tr>
<th>Cumulative Registered Credits</th>
<th>Cumulative Completion Rate</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, 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 F, FN, 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.

   All attempted credits are counted, including transfer and consortium credits, whether or not financial aid was received, or the course work was successfully completed.

3. **Maximum-Time Frame for Credits (Financial Aid Recipients):**

   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.

   As an example, the Associate of Arts Degree (A.A.) requires the completion of 60 credits. Maximum time frame for financial aid purposes allows the student to take 90 credits (150%). At that point, the student would be placed on maximum-time frame suspension, and not be...
allowed further financial aid unless there were mitigating circumstances or the student has chosen to change programs or pursue a second degree, diploma, or certificate.

Students who choose to change programs or pursue a second degree may retain financial aid eligibility for the new program; however, the student will have to complete this new program within 150% of the published credit length of the program. A maximum time-frame appeal must be completed. Credits attempted at Mesabi Range College, as well as transfer credits that count towards the completion of the student’s new declared program of study, will be included in the maximum-time frame calculation. For the purposes of calculating maximum-time frame, up to 30 credits of developmental education credits are excluded from the calculation.

4. **Evaluation Period:**
   A student’s academic progress will be evaluated at the end of every semester (fall, spring, and summer).

5. **Failure to Meet Standards:**
   A. **Academic Warning and Suspension**
      1) Any student who fails to meet minimum satisfactory academic progress requirements for a semester will be placed on warning status, commencing immediately.
      2) A student on warning 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.

   B. **Financial Aid Warning and Suspension:**
      1) **Maximum Time-Frame Failure:** If at the end of the evaluation period a student has failed to meet the College’s standard for measurement of maximum time-frame, the institution shall suspend that student from financial aid eligibility immediately upon completion of the evaluation.
      2) **Qualitative Standard or Completion Failure:** If at the end of the evaluation period a student has failed to meet the College’s qualitative standard or required completion percentage, the College will allow the student to retain her or his financial aid eligibility under a warning status for one evaluation period.
         a. **Reinstatement of Students on Warning Status:** If at the end of the warning period a student has met the College’s cumulative qualitative and quantitative standards, the College shall reinstate the student’s eligibility for financial aid.
         b. **Suspension of Students on Warning Status:** If at the end of the warning period a student who has been on warning status has not met the College’s cumulative qualitative or quantitative standards, the College will suspend the student immediately upon completion of the evaluation.

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

6. **Appeals:**

   **A. Academic Appeals:** available at www.mesabirange.edu
   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, with documentation. These could include, but are not limited to, death in the family, student’s injury or illness, changes in the curriculum, etc. The appeal must be submitted in writing on a form available on the College’s website or in the Records Office. Appeals are reviewed by an Appeals Committee. If an academic appeal is approved, the student will be allowed to continue his/her education but must meet the academic success plan set by the student’s advisor and the committee. Failure to meet these standards will result in immediate suspension.

   **B. Financial Aid Appeals:** available at www.mesabirange.edu
   A student who fails to make satisfactory academic progress and is suspended from financial aid has the right to appeal based on unusual or extenuating circumstances. These could include but are not limited to death in the family; student’s injury or illness; changes in the curriculum, etc. The appeal should also include supporting documentation beyond the written explanation (e.g., a physician’s statement, etc.). The appeal must be submitted in writing on a form available on the College’s website or in the Financial Aid Office. Appeals are reviewed by an Appeals Committee and the Director of Financial Aid. If an appeal is approved, the student will be allowed to receive financial aid as long as he or she continues to meet the academic success plan set by the student’s advisor and the appeals committee. Failure to meet these standards will result in immediate suspension.

   A student whose academic or financial aid appeal is denied may request the Interim Provost to reevaluate the decision.

   Maximum time frame appeal petitions require a separate form that can be obtained on the College’s website or from the Financial Aid Office. Appeals for financial aid maximum time frame will be granted only in the case of documented mitigating circumstances as listed above. An academic plan must be developed with an Academic Advisor, which indicates the course work necessary to complete the degree/certificate. Courses not found on the Academic Plan are ineligible for financial aid. If the appeal is denied, the student will be notified in writing. The decision of the Committee shall be final.

7. **Notification:**
   Students will be notified as to their warning and suspension status. Such notification shall include the process by which the student may appeal. Results of the appeal will also be mailed to the student.
Notification of approved appeals will include details of the student’s status including the standards the student is expected to meet or the academic plan the student is expected to complete by the end of the next evaluation period.

Notification of denied appeals from the Appeals Committee shall indicate the reason(s) for the denial. The student has the option to appeal the committee’s denial by submitting a petition to the Interim Provost.

8. **Reinstatement:**

   If a student is placed on academic suspension, he or she will be eligible to re-enroll in the college after an absence of one calendar year without appeal. If the student re-enrolls under this condition, he or she will return to Mesabi Range College; however, the student is not eligible for financial aid until he or she has met “Satisfactory Academic Progress” standards OR has an approved financial aid appeal which shall include an approved academic plan. Simply paying for classes or sitting out a period of time is sufficient to re-establish a student’s financial aid eligibility.

   If you choose not to appeal or your appeal is denied, you may regain financial aid eligibility by meeting with your academic advisor and developing an academic plan, which will include taking additional classes while not receiving financial aid.

   If at the end of the term, the student:

   a. has met the college’s qualitative and quantitative standards, the student’s financial aid eligibility will be reinstated, **or**

   b. has not met the college’s qualitative and quantitative standards, but has met the terms of the academic plan, the student shall retain financial aid for a subsequent evaluation period, **or**

   c. fails to meet the college’s qualitative or quantitative standards for the courses in which the student is enrolled during the subsequent evaluation period, the college will suspend the student from financial aid eligibility immediately upon completion of the review, **or**

   d. 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 college’s standards before the student would reach maximum time frame (150%) 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.

9. **Additional information:**

   **A. Treatment of Grades:**

   a. A letter is assigned at the end of the semester for each course in which the student is enrolled. A grade point value for each credit in the course is assigned to each letter grade. Only the grades of **A**, **B**, **C**, and **D** carry grade point value.

   b. 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.
c. **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** since admission.

d. Completed credits include **A**, **B**, **C**, **D**, **P**, **F**, and **FN** are used in the calculation of the Grade Point Average. They do not include “I” (incomplete), “W” (withdraw), “V” (visitor/audited), “NC” (no credit) or drops (classes dropped during the first five days of the term generally called the drop/add period). Completed credits may qualify for retroactive payment of financial aid.

e. Courses for which a student receives a letter grade of “I”, “NC”, “W”, “F,” and “FN” shall be treated as credits attempted but not successfully completed. Blank (“Z”) grades shall be treated as credits attempted but not successfully completed. Audited courses (“AU”) are not counted.

f. Mesabi Range College does not distinguish between withdraw passing vs withdraw failing.

B. **Academic Amnesty/Forgiveness:**
The College may grant Academic Amnesty/Forgiveness to students who previously attended the College more than five years from the current start date. Students must petition to receive Academic Amnesty/Forgiveness. While this policy applies to the academic concerns, the student’s previous GPA and completion rate will continue to apply for the purposes of financial aid. Accordingly, students granted Academic Amnesty/Forgiveness will be required to meet the current standards of GPA and completion rate during subsequent terms of enrollment.

C. **Audited Course:** Audited courses will not be funded by financial aid and are not included in any financial aid satisfactory academic progress measurement.

D. **Consortium/Joint Program Credits:** Consortium/joint programs allow a student to register for credit at two colleges at the same time. Consortium/joint credits are those credits for which a student is registered at another college which are accepted by Mesabi Range College for the purposes of processing financial aid at Mesabi Range College. Students must first obtain a Consortium Agreement from financial aid and seek approval from the academic advisor prior to financial aid considering the credits as acceptable. Consortium credits are included in determining grade point averages and completion rate.

E. **Remedial/Developmental Credits:** Credits are awarded for remedial course work (below 1000 level). Students may receive financial aid for developmental credits up to a maximum of 30 semester hours. Thirty semester hours of remedial/developmental credits are excluded from the max-time frame computation.

F. **Repeat Credits:** Students are allowed to repeat a course in order to improve a grade, as allowed by the college. The college will use the most recent grade in calculating the grade point average. All repeated credits are included in the percent of completion and maximum time-frame calculations. When repeating a course, students may receive
financial aid for up to one repeat of a previously passed course. Students may also receive aid more than once when repeating a course where the previous grade earned was **NC, F, FN, or W**. In addition, a student may also repeat and receive financial aid for a course where a passing grade was earned but the grade was lower than what is considered acceptable in a particular curriculum/major.

### G. Transfer Credits
These are credits earned at another college, which are accepted by Mesabi Range College and are applicable to the student’s program requirements. Transfer credits are included as credits attempted and completed for calculation of cumulative completion percentage. They are not included when calculating a student’s cumulative GPA but are included in maximum-time frame for the purposes of financial aid.

### H. Withdrawals
Credits for which a grade of “W” is received are considered attempted credits but not successfully completed credits for the purposes of monitoring satisfactory academic progress. Thus, a “W” does not impact GPA but does negatively impact the cumulative completion percentage.

### 10. Definitions:

**Credit:** 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 terms for which the student did not receive financial aid.

**Earned Credits:** Earned credits are successfully completed credits that count toward the required percentage of completion. Earned credits include an A, B, C, D, and P.

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

**Registered Credits:** The total number of credits for which a student is officially enrolled at the end of the registration drop period for each semester.

**Awarding of Two Degrees/Double Majors**
In some instances, students may want to complete two related technical programs or degrees (A.A., A.S., or 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.

**Time Limit for Meeting Graduation Requirements**

It is the policy of Mesabi Range 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**

The Minnesota State Colleges and Universities (MinnState) system is 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 the following:

- Help from the transfer advisors on campus;
- Transfer guides on the MinnState Transfer website;
- Written Articulation Agreements with other institutions regarding:
  - transfer of general education courses and the Associate of 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; and
- 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 complete an application 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 file. Students should follow-up 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 do the following:

- Confer with a campus transfer advisor about transfer plans to determine 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 the following:
• 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 the following:
  - student completes an appeals form (providing supplemental information such as a 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.
If you are not satisfied with Mesabi Range College’s transfer appeal decision, you may submit an appeal to the Senior Vice Chancellor of Academic & Student Affairs of Minnesota State Colleges and Universities (MinnState) for a system level appeal of the college’s decision. Please see Policy 3.21.1 at www.minnstate.edu.

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 all transfer credits will help a student graduate. Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is this: “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 College Transfer Procedures

Admission in Good Standing
Applicants are admitted to Mesabi Range 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 (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 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 G.P.A. at the originating institution is less than 2.0, “D” grades will not be accepted in transfer from that school. Students retain the right to appeal the acceptance of credits.

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

Mesabi Range College’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 College 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 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 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 College’s Norsemen and Norsewomen compete in a variety of intercollegiate sports. Men’s activities include football, basketball, golf, and baseball. Women’s activities include volleyball, basketball, golf, and softball. Mesabi Range College’s athletic teams are members of the MN College Athletic Conference (MCAC) and Region XIII of the National Junior College Athletic Association (NJCAA).

Athletics (Intramurals)

An active intramural competition program is offered at Mesabi Range College. Activities include basketball, volleyball, frisbee golf, hockey, bowling 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 Senate and organized clubs and organizations. Some clubs would include Gaming, Welding, Nursing, and Student Life.

Fitness Center

Mesabi Range College 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.

Music

Students are welcome to become involved in the local Community Band, Choir, and/or Orchestra.

Special Events

Mesabi Range College has an active Student Life Program which provides a variety of social and cultural opportunities to students throughout the academic year. MRC’s Virginia campus typically provides activities during a two-week long period for Welcome Week and Fall Homecoming and hosts other various activities during both fall and spring.

Student Life Committee

Mesabi Range College’s Student Life Committee exists to provide recommendations regarding programs and budgets. Representatives on this committee are nominated by the Student Senate.

Student Senate

Mesabi Range College has officially recognized Student Senates, which serves as the official representative bodies of the students. The campus’ Student Senates consists of elected officers and representatives. The student governments of each campus of Mesabi Range College meet 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 the MinnState Board of Trustees, Minnesota State Legislature, and other agencies affecting higher education.

The Minnesota State Colleges and Universities (MinnState) system has adopted a policy which gives students, through their student government, the right to present their views and make written recommendations on decisions that affect them. At Mesabi Range College, the Student Senate at each campus are the governing bodies for the students.
STUDENT RIGHTS & RESPONSIBILITIES
Mesabi Range College 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 a process whereby their complaints or grievances may be heard.

A student handbook, which further defines academic and student life policies, is available on the Mesabi Range College website.

Code of Conduct Policy
Mesabi Range 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 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 (MinnState) Board of Trustees.

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

• Academic dishonesty including, but not limited to, cheating, plagiarism, misrepresentation of student status, resume falsification, and unacknowledged use of materials prepared by another person or agency engaged in selling or otherwise providing term papers or other academic materials. Plagiarism includes, but is not limited to the use of, by paraphrase or direct quotation, the published or unpublished work of another person without full and clear acknowledgment.

• 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.

• 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 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 while demanding 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 the Admissions, Records, and Financial Aid Offices keep on them.

Mesabi Range College 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. Others 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 College’s policy on Confidentiality of Student Records may be obtained in the Student Services Office.

**Crime Awareness and Campus Security Policy**

Mesabi Range 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 report of the Crime Awareness and Campus Security Policy. 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 College’s policy on Crime Awareness and Campus Security is available online at [www.mesabirange.edu](http://www.mesabirange.edu). The full Campus Security Policy is available on the Mesabi Range College website.

**Drug and Alcohol-Free Campus Policy**

It is the policy of the Minnesota State Colleges and Universities (MinnState) system as well as that of Mesabi Range College 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 College campus grounds except
for instructional purposes and other permitted uses set out in the full MinnState 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 College is committed to a standard of student conduct that prohibits the unlawful possession, use, being in the presence, 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 College’s policy on a Drug and Alcohol Free Campus may be obtained in the Student Services Office.

**Tobacco-Free Campus Policy**

Mesabi Range College recognizes that the use of tobacco in any form poses serious and long-term health risks to all individuals who use or are exposed to it. Therefore, Mesabi Range College is committed to creating a clean, safe, and healthy learning and working environment for all students, employees, and visitors on College property.

As of August 1, 2011, smoking, tobacco use, and tobacco sales, i.e., cigarettes, (including the use or sales of smokeless tobacco products) are prohibited on college-owned, -operated or -leased property, including all college-owned vehicles.

A complete copy of Mesabi Range College’s Tobacco-Free Campus policy may be obtained in the Student Services Office.

**Non-Discrimination Policy**

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

Harassment of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or work environment and is prohibited. Sexual violence has no place in a learning or work environment. Further, the Minnesota State Colleges and Universities (MinnState) system 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. Title VI Officer is Kevin Langdon (218) 744-7471.

**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 College has a legal and ethical responsibility to enforce policies in order 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.

Mesabi Range College 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 College and MinnState 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.

The Title IX Officer is Kelly Bakk, Room S124, Virginia Campus, (218) 749-7765. 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 College has established a complaint procedure to deal with reports of harassment. Mesabi Range College encourages any person who feels he or she has been or is being subjected to discrimination or harassment to report the incident to a Mesabi Range College staff or faculty member. A designated officer may then be asked to conduct an investigation.

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

Student Travel Policy

Mesabi Range College’s Student Travel Policy governs all travel that involves enrolled students as well as individuals who participate in College-sponsored travel. Students 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

- Mesabi Range College policies on alcohol, drugs, tobacco, harassment/violence are in effect;
- Student Code of Conduct is in effect;
- Only certified MRC students and staff are authorized to drive;
- 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 Chief Finance and Facilities Officer;
- Students who violate policies may be sent home at their own expense;
• Alleged violations of Mesabi Range College and MinnState policies will be addressed upon the student’s return to 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 is located online at www.mesabirange.edu.

**Use of Computer and Network Systems Policy**
Mesabi Range College values openness and promotes access to a wide range of information. Inappropriate or unlawful use of computer and network systems, however, can infringe on the rights of others. The use of College computer systems and networks is a privilege granted to faculty, staff, and students. Mesabi Range College expects all members of its community to use these resources responsibly. Users must respect the rights of other users and the integrity of the systems, and observe all relevant laws, regulations, and contractual obligations, including strict adherence to software licensing agreements and copyright laws. Any intentional conduct that interferes with the activities of the College or members of the college community will be regarded as unethical and may lead to disciplinary action under College policies, contracts, and pay plans governing misconduct and discipline.

A complete copy of the Acceptable Use Policy for Information Technology can be found on-line at http://www.minnstate.edu/board/policy/522.html.
GRADUATION REQUIREMENTS FOR DEGREES
Mesabi Range College awards the Associate of Arts Degree, the Associate of Science Degree, and the Associate of Applied Science Degree.

In addition to completing the specific requirements of each degree, all students seeking degrees from Mesabi Range 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 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 MinnState institution.
5. File an application for graduation in the Records Office by the end of the semester preceding graduation.

Associate of Arts Degree (A.A.)
The Associate of Arts 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 of Arts Degree requires:
   a. The successful completion of a minimum of 60 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 60 credits.

Associate of Science Degree (A.S.)
The Associate of Science 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 Associate of Science 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 of Applied Science Degree (A.A.S.)
The Associate of Applied Science 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 of 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 minimum of 11 credits or one-third 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:

a. Successful completion of 30-64 college-level credits.

b. 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 or knowledge and/or professional skills in a specific area of knowledge or practice. The Certificate programs require the following:

a. Successful completion of 9-32 college-level credits.

b. Completion of requirements for one of the certificate programs.
MESABI RANGE COLLEGE
Associate of Arts Degree/Minnesota Transfer Curriculum
Graduation Worksheet
(Effective for New Incoming Students: 2017-2018)

To be eligible for graduation with an A.A. Degree you must satisfy the following requirements:
- Must complete 60 credits with a cumulative GPA of 2.0 for all courses completed.
- Within these 60 credits, must complete the 40 credits of the Minnesota Transfer Curriculum (MnTC) with a 2.0 grade point average and additional graduation requirements listed below.
- No courses numbered below 1000 may be used to complete degree.
- Must complete GECL 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.
- Transfer of MnTC courses from another MinnState institution with grades of A,B,C, and/or D will be transferred in to the goal area that was assigned by the sending institution, regardless of cumulative GPA at the sending institution.

GOAL 1: Communication
- Must complete the following courses for a minimum of 10 credits:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1512</td>
<td>College Writing II</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 1550</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
<td>3</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 7 credits including 1 Life Science course and 1 Physical Science course (1 must be a lab science).

Life Science (choose one)
- BIOL 1415 (4) __Intro to Anatomy & Physiology
- BIOL 1515 (3) __Biology of Women [7]
- BIOL 1535 (3) __Intro to Microbiology
- BIOL 1536 (4) __Contemporary Issues in Biology [10]
- BIOL 1545 (4) __Human Biology
- BIOL 1546 (4) __Environmental Science [10]
- BIOL 1547 (4) __Intro to Biology [10]
- BIOL 1548 (4) __Plants and Society [10]
- BIOL 1551 (5) __College Biology I
- BIOL 1552 (5) __College Biology II [10]
- BIOL 2551 (4) __Human Anatomy & Physiology I
- BIOL 2552 (4) __Human Anatomy & Physiology II

Physical Science (choose one)
- CHEM 1511 (4) __Fundamentals of Chemistry
- CHEM 1512 (4) __Fundamentals of Organic Chemistry
- CHEM 1522 (4) __General Chemistry I
- CHEM 1523 (4) __General Chemistry II
- GEOG 1555 (3) __Physical Geography [10]
- GEOL 1557 (4) __Physical Geology [10]
- PHYS 1541 (4) __Physical Science [10]
- PHYS 1551 (4) __Introductory Physics
- PHYS 1561 (4) __College Physics I
- PHYS 1562 (4) __College Physics II
- PHYS 1567 (3) __Astronomy

Must have 7 Credits  Total
### GOAL 4: Math/Logical Reasoning
- Must complete a minimum of 3 credits from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>MATH 1511</td>
<td>Foundations of Mathematics I</td>
</tr>
<tr>
<td>MATH 1512</td>
<td>Foundations of Mathematics II</td>
</tr>
<tr>
<td>MATH 1521</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MATH 1545</td>
<td>Finite Math</td>
</tr>
<tr>
<td>MATH 1542</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 1556</td>
<td>Survey of Calculus</td>
</tr>
<tr>
<td>MATH 1561</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 1562</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 2543</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH 2544</td>
<td>Differential Equations and Linear Algebra</td>
</tr>
<tr>
<td>MATH 2563</td>
<td>Calculus III</td>
</tr>
<tr>
<td>STAT 2551</td>
<td>Statistics I</td>
</tr>
</tbody>
</table>

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 1565 (3) __ Introduction to the World Economy [8]
- ECON 1566 (3) __ Ecological Economics [10]

#### 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) __ Amer. Hist 1877 to Pr [7]
- HIST 1567 (3) __ Native Amer History [7]
- HIST1568 (3) __ Minnesota History [10]
- HIST 2555 (3) __ The Holocaust [9]

#### Journalism
- Jour 1555 (3) __ Intro to Mass Communications [9]

#### Multicultural Studies (Ethnic/Cultural Studies)
- MCS 1555 (3) __ Multicultural Studies [8]
- MCS 1556 (3) __ Culture through Film [7]

#### Political Science
- POLS 1556 (3) __ American Government [9]
- POLS 1557 (3) __ State and Local Government [9]
- POLS 1558 (3) __ Intro to Political Science [8]
- POLS 1559 (3) __ International Relations [8]

#### Psychology
- PSYC 1555 (3) __ Psychology of Men [7]
- PSYC 2551 (4) __ General Psychology
- PSYC 2555 (3) __ Psychology of Aging [7]
- PSYC 2565 (4) __ Industrial/Organizational Psychology [7]
- PSYC 2575 (4) __ Introduction to Co-Occurring Disorders [9]
- PSYC 2585 (3) __ Abnormal Psychology [7]
- PSYC 2586 (3) __ Child and Adolescent Development
- PSYC 2587 (4) __ Lifespan Development [7]
- PSYC 2588 (3) __ Group Dynamics

#### 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 Organize/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:

**History, Appreciation or Theory**
- ART 1521 (3) __ Art History: Prehistoric to Pre-Renaissance
- ART 1522 (3) __ Art History: Early Renaissance-Modern
- ART 1541 (3) __ Introduction to Art
- ART 1556 (3) __ North American Indian Art [7]
- MUSC 1525 (3) __ World Music [8]
- MUSC 1555 (3) __ American Popular Music [7]
- MUSC 1559 (3) __ Introduction to Music [8]
- MUSC 1565 (3) __ History of Rock & Roll
- MUSC 1566 (3) __ Fundamentals of Music Theory
- MUSC 1567 (3) __ Music Theory II

- PHIL 1551 (3) __ Introduction to Ethics [9]
- PHIL 1556 (3) __ World Religions [8]
- PHIL 1565 (3) __ American Indian Philosophy [10]
- PHIL 1575 (3) __ Introduction to Philosophy [9]
- PHIL 1585 (3) __ Ethics and Issues in Regional Develop [10]
- PHIL 2552 (3) __ Ethics [9]

- MUSC 1525 (3) __ World Music [8]
- MUSC 1555 (3) __ American Popular Music [6]
- MUSC 1556 (3) __ North American Indian Art [7]
- MUSC 1565 (3) __ American Popular Music [6]
- MUSC 1566 (3) __ American Popular Music [6]
- MUSC 1567 (3) __ Culture through Film [5]
- MUSC 1569 (3) __ Introduction to Theatre

**Literature**
- ENGL 1559 (3) __ Art of the Film
- ENGL 1575 (3) __ Introduction to Literature
- ENGL 1576 (3) __ Literature of Science Fiction
- ENGL 1577 (3) __ Mythology [8]
- ENGL 1579 (3) __ World Literature [8]
- ENGL 2515 (3) __ Native American Literature [10]
- ENGL 2534 (4) __ British Literature to the 18th Century

- ENGL 2536 (4) __ British Literature 18th – 20th Century
- ENGL 2537 (3) __ Survey of American Literature I [7]
- ENGL 2538 (3) __ Survey of American Literature II [7]
- ENGL 2546 (3) __ North American Nature Writers [10]
- ENGL 2547 (3) __ The Bible as Literature [8]
- ENGL 2577 (3) __ World Mythology [8]
- ENGL 2578 (3) __ Literature for Women [7]

- ENGL 2579 (3) __ Literature by Women [6]
- ENGL 2587 (3) __ Abnormal Psychology [5]
- ENGL 2588 (3) __ Lifespan Development [5]
- SOC 1555 (3) __ Introduction to Sociology [8]
- SOC 1557 (3) __ Courtship, Marriage, & Family [5]
- SOC 1558 (3) __ Human Relations [5]
- SOC 1559 (3) __ Human Sexuality [5]
- SOC 1565 (3) __ Social Problems [5]
- SPCH 1585 (3) __ Intercultural Communication [8]
- SPCH 1586 (3) __ Leadership & Group Communication [9]

**Creative Process/Interpretive Performance**
- ART 1531 (3) __ Drawing I
- ART 1532 (3) __ Drawing II
- ART 1542 (2) __ Design
- ART 1545 (3) __ Ceramics
- ART 1551 (3) __ Painting - Oil
- ART 1552 (3) __ Painting II
- ART 1565 (3) __ Basic Photography

- ART 1566 (3) __ Digital Photography
- ART 2535 (3) __ Painting - Watercolor
- ENGL 2545 (3) __ Creative Writing
- SPCH 2565 (3) __ Oral Interpretation
- THTR 1557 (3) __ Applied Acting Techniques
- THTR 1565 (3) __ Acting for the Stage

**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.

- ANTH 1515 (3) __ Introduction to Indian Studies [5]
- ART 1556 (3) __ North American Indian Art [6]
- BIOL 1515 (3) __ Biology of Women [3]
- ENGL 2578 (3) __ Literature by Women [6]
- ENGL 2537 (3) __ Survey of American Literature I [6]
- ENGL 2538 (3) __ Survey of American Literature II [6]
- GEOG 1558 (3) __ World Regional Geography [8]
- HIST 1565 (4) __ American History: To 1877 [5]
- HIST 1566 (4) __ American History: 1877 to Present [5]
- HIST 1567 (3) __ Native American History [5]
- MCS 1556 (3) __ Culture through Film [5]

- MUSC 1555 (3) __ American Popular Music [6]
- PSYC 1555 (3) __ Psychology of Men [5]
- PSYC 2555 (3) __ Psychology of Aging [5]
- PSYC 2556 (4) __ Industrial/Organizational Psychology [5]
- PSYC 2558 (3) __ Abnormal Psychology [5]
- PSYC 2567 (4) __ Lifespan Development [5]
- SOC 1555 (3) __ Introduction to Sociology [8]
- SOC 1557 (3) __ Courtship, Marriage, & Family [5]
- SOC 1558 (3) __ Human Relations [5]
- SOC 1559 (3) __ Human Sexuality [5]
- SOC 1565 (3) __ Social Problems [5]
- SPCH 1585 (3) __ Intercultural Communication [8]
- SPCH 1586 (3) __ Leadership & Group Communication [9]

**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>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1525</td>
<td>Intro to Cultural Anthropology</td>
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<tr>
<td>ECON 1555</td>
<td>Survey of Economics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECON 1556</td>
<td>Principles of Economics – Micro</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECON 1557</td>
<td>Principles of Economics – Macro</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ECON 1565</td>
<td>Intro to World Economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 1577</td>
<td>Intro to World Economy</td>
<td>3</td>
<td></td>
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<tr>
<td>ENGL 1579</td>
<td>World Literature</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 2547</td>
<td>The Bible as Literature</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL 2577</td>
<td>World Mythology</td>
<td>3</td>
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<td>FREN 2463</td>
<td>French III</td>
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<td>FREN 2464</td>
<td>French IV</td>
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<td>GEOG 1556</td>
<td>Human Geography</td>
<td>3</td>
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<td>HIST 1555</td>
<td>History of Western Civ: Paleo to 1500</td>
<td>4</td>
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<tr>
<td>HIST 1556</td>
<td>History of Western Civ: 1500 to present</td>
<td>4</td>
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</tr>
<tr>
<td>MCS 1555</td>
<td>Multicultural Studies</td>
<td>3</td>
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<tr>
<td>MUSC 1525</td>
<td>World Music</td>
<td>3</td>
<td></td>
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<tr>
<td>MUSC 1559</td>
<td>Introduction to Music</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHIL 1556</td>
<td>World Religions</td>
<td>3</td>
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</tr>
<tr>
<td>PHIL 1575</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
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<tr>
<td>PHIL 2552</td>
<td>Ethics</td>
<td>3</td>
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<tr>
<td>SPAN 1461</td>
<td>Spanish I</td>
<td>4</td>
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<td>SPAN 1462</td>
<td>Spanish II</td>
<td>4</td>
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<td>SPAN 1540</td>
<td>Culture and Civilization of Spain</td>
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<td>SPAN 1550</td>
<td>Culture and Civilization of Hisp/Amer</td>
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<td>Spanish III</td>
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<td>SPAN 2464</td>
<td>Spanish IV</td>
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<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td></td>
</tr>
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<td>PHIL 1575</td>
<td>Introduction to Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHIL 1585</td>
<td>Ethics and Issues in Regional Develop</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>JOUR 1555</td>
<td>Intro to Mass Communication</td>
<td>3</td>
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<tr>
<td>JOUR 1557</td>
<td>State and Local Government</td>
<td>3</td>
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</tr>
<tr>
<td>PSYC 2575</td>
<td>Introduction to Co-Occurring Disorders</td>
<td>4</td>
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<tr>
<td>POLS 1556</td>
<td>American Government</td>
<td>3</td>
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<td>POLS 1557</td>
<td>State and Local Government</td>
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<td></td>
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<td>PSY 2575</td>
<td>Introduction to Co-Occurring Disorders</td>
<td>4</td>
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</tr>
<tr>
<td>SOC 1551</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC 1556</td>
<td>Intro to Community Organizing &amp; Develop.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SPCH 1586</td>
<td>Leadership &amp; Group Communication</td>
<td>3</td>
<td></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>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2555</td>
<td>The Holocaust</td>
<td>3</td>
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<tr>
<td>JOUR 1555</td>
<td>Intro to Mass Communication</td>
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</tr>
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<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
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<td>PHIL 1575</td>
<td>Introduction to Philosophy</td>
<td>3</td>
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<td>PHIL 2552</td>
<td>Ethics</td>
<td>3</td>
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<td>POLS 1556</td>
<td>American Government</td>
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<td>PSYC 2575</td>
<td>Introduction to Co-Occurring Disorders</td>
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<td>Introduction to Criminal Justice</td>
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<td>Intro to Community Organizing &amp; Develop.</td>
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<tr>
<td>SPCH 1586</td>
<td>Leadership &amp; Group Communication</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

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

### GOAL 10: People and 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>Notes</th>
</tr>
</thead>
<tbody>
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<td>ANTH 1535</td>
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<tr>
<td>ANTH 2555</td>
<td>Introduction to Archaeology</td>
<td>3</td>
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</tr>
<tr>
<td>BIOL 1536</td>
<td>Contemporary Issues in Biology</td>
<td>4</td>
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</tr>
<tr>
<td>BIOL 1546</td>
<td>Environmental Science</td>
<td>4</td>
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<tr>
<td>BIOL 1547</td>
<td>Intro to Biology</td>
<td>4</td>
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<tr>
<td>BIOL 1548</td>
<td>Plants and Society</td>
<td>4</td>
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<td>BIOL 1552</td>
<td>College Biology II</td>
<td>5</td>
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<tr>
<td>ECON 1566</td>
<td>Ecological Economics</td>
<td>3</td>
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<tr>
<td>ENGL 2515</td>
<td>Native American Literature</td>
<td>3</td>
<td></td>
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<tr>
<td>ENGL 2546</td>
<td>North American Nature Writers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEOG 1555</td>
<td>Physical Geography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEOG 1557</td>
<td>Conservation of Natural Resources</td>
<td>3</td>
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<td>GEOL 1557</td>
<td>Physical Geology</td>
<td>4</td>
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<tr>
<td>HIST 1568</td>
<td>Minnesota History</td>
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<td>PHIL 1565</td>
<td>American Indian Philosophy</td>
<td>3</td>
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<tr>
<td>PHIL 1585</td>
<td>Ethics and Issues in Regional Develop</td>
<td>3</td>
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<tr>
<td>PHYS 1541</td>
<td>Physical Science</td>
<td>4</td>
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</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
GECL 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/Human Services
➢ Must complete a minimum of 1 course for at least 2 credits:

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

HLTH 2459 (3) ____ Introduction to Nutrition
HSER 1465 (2) ____ Drug Use and Abuse

Must have a minimum of 2 Credits  Total _____

Electives:
➢ Please list electives: e.g.  

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Number</th>
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</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 60 Credits Total for A.A. Degree  Total Credits ____

NOTE: A 2.0 GPA is required for the 40 credits of the Minnesota Transfer Curriculum.

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.
Transfer Information

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 College 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 College of either an Associate of Arts (A.A.) Degree or an Associate of 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 of 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 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 of 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:

<table>
<thead>
<tr>
<th>Accounting</th>
<th>Physical Education – Physics Concentration</th>
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</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Physical Science Education Social Studies Education</td>
</tr>
<tr>
<td>American Indian Studies</td>
<td>Pre-Engineering</td>
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<tr>
<td>Anthropology</td>
<td>Aerospace Engineering</td>
</tr>
<tr>
<td>Pre-Architecture</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Art</td>
<td>Bio/Agricultural Engineering</td>
</tr>
<tr>
<td>Astrophysics</td>
<td>Chemical Engineering</td>
</tr>
<tr>
<td>Biology</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Biology (A.S. Degree)</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>Business</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Business (A.S. Degree)</td>
<td>Geological Engineering</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Materials Science Engineering</td>
</tr>
<tr>
<td>Chiropractic</td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>Communication</td>
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</tr>
<tr>
<td>Computer Science</td>
<td>English</td>
</tr>
<tr>
<td>Construction Management</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>Criminology/Criminal Justice</td>
<td>Exercise &amp; Sports Science</td>
</tr>
<tr>
<td>Pre-Dental Hygiene</td>
<td>Forestry/Natural Resources</td>
</tr>
<tr>
<td>Pre-Dentistry</td>
<td>Geography</td>
</tr>
<tr>
<td>Economics</td>
<td>Geology</td>
</tr>
<tr>
<td>Education</td>
<td>Geophysics</td>
</tr>
<tr>
<td>(Early Childhood, Elementary and Secondary</td>
<td>Health Sciences (Broad Field)</td>
</tr>
<tr>
<td>Art Education</td>
<td>History</td>
</tr>
<tr>
<td>Communication Arts/Literature</td>
<td>Human Services Generalist</td>
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<td>Pre-Communication Disorders</td>
<td>Industrial Technology/Industrial Arts</td>
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<tr>
<td>Early Childhood Studies/Special Education</td>
<td>International Relations/Studies</td>
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<tr>
<td>Earth and Space Science Education</td>
<td>Pre-Law</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>Liberal Arts/Humanities</td>
</tr>
<tr>
<td>Exercise Science Education</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Life Science Education</td>
<td>Pre-Medicine</td>
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<tr>
<td>Mathematics Education</td>
<td>Medical Technology</td>
</tr>
<tr>
<td>Music Education</td>
<td></td>
</tr>
<tr>
<td>Physical Education – Chemistry</td>
<td>Pre-Mortuary Science</td>
</tr>
<tr>
<td>Concentration</td>
<td></td>
</tr>
</tbody>
</table>
Career Programs

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 of Applied Science programs. Associate of 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.

**BUSINESS**
**ONE-YEAR DIPLOMA**

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

SEMESTER I

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2691</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUS 1655</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>* Business Elective</td>
<td></td>
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<tr>
<td>Total Semester Credits</td>
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SEMESTER II

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT 2692</td>
<td>Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUS 2655</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2675</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 1455</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Total Semester Credits</td>
<td></td>
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</tbody>
</table>

* Highly Recommended Business Electives:

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 1666</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1557</td>
<td>Macro Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

BUSINESS

TWO-YEAR A.S. DEGREE

The A.S. 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 A.S. 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.

CREDITS REQUIRED FOR GRADUATION 60

SEMESTER I

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2691</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUS 1655</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1556</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>CSCI 1455</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
</tbody>
</table>
GECT 1415 Freshman Year Experience 1
Total Semester Credits 14

Semester II

ACCT 2692 Principles of Accounting II 4
ECON 1557 Principles of Economics: Macro 3
ENGL 1511 College Writing I 4
MATH 1521 College Algebra 4
Total Semester Credits 15

Semester III

BUS 2655 Legal Environment of Business 3
BUS 1666 Principles of Marketing 3
BUS 2677 Human Resource Management 3
ENGL 1512 College Writing II 4
SOC 1555 Introduction to Sociology 3

Semester IV

STAT 2555 Statistics I 4
BUS 2675 Principles of Management 3
PHIL 1551 Introduction to Ethics 3
SPCH 1565 Interpersonal Communication 3
Electives* Minnesota Transfer Curriculum 2

*Elective credits should be selected for MNTC requirements, special topic business courses, or for individual courses that readily transfer to articulated programs.

**BUSINESS OPERATIONS & MANAGEMENT**
TWO-YEAR A.A.S. DEGREE

The Business Operations & Management program prepares students to use the latest technology; the diverse training prepares graduates for employment in today’s automated office environment. The increasing use of sophisticated office technology has tremendous implications for those entering the business office. Training emphasizes the development of communications skills in an office
networking system, as well as the use of word processing, spreadsheet, database, desktop publishing, and business presentation software.

**CREDITS REQUIRED FOR GRADUATION:** 60

**SEMESTER I**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BOPM 1246</td>
<td>College Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1251</td>
<td>Operations Management I: The Professional Office</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1252</td>
<td>Operations Management II: Business Accounting with QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1253</td>
<td>Operations Management III Customer Relations in a Global Environment</td>
<td>3</td>
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<tr>
<td>GECL 1415</td>
<td>Freshman Year Experience</td>
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<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
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</table>

**Total Semester Credits:** 16

**SEMESTER II**

**PROGRAM REQUIREMENTS**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BOPM 1241</td>
<td>Project Management: Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1242</td>
<td>Project Management: Microsoft Excel</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1243</td>
<td>Project Management III: Records/Data Management</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1244</td>
<td>Project Management IV: Microsoft PowerPoint &amp; Publisher</td>
<td>3</td>
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<tr>
<td>BOPM 1245</td>
<td>Project Management V: Microsoft Access</td>
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</table>

**Total Semester Credits:** 15

**SEMESTER III**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 1655</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 1666</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
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**Total Semester Credits:** 13

**SEMESTER IV**

**PROGRAM REQUIREMENTS**

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<thead>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BUS 2655</td>
<td>Legal Environment of Business</td>
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</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>-------------</td>
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<tr>
<td>BUS 2675</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
<td>4</td>
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<tr>
<td>ENGL 1532</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 2261</td>
<td>Capstone Project</td>
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</tr>
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</table>

**BUSINESS OPERATIONS & MANAGEMENT**

**ONE-YEAR DIPLOMA**

**CREDITS REQUIRED FOR GRADUATION:** 31

**SEMESTER I**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BOPM 1246 College Keyboarding</td>
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</tr>
<tr>
<td>BOPM 1251 Operations Management I: The Professional Office</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1252 Operations Management II: Business Accounting with QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 2253 Operations Management III: Customer Relations in a Global Environment</td>
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</tr>
<tr>
<td>GECL 1415 Freshman Year Experience</td>
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<tr>
<td>SPCH 1565 Interpersonal Communication</td>
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<td>Total Semester Credits</td>
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**SEMESTER II**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BOPM 1241 Project Management: Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1242 Project Management: Microsoft Excel</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1243 Project Management III: Records/Data Management</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1244 Project Management IV: Microsoft PowerPoint &amp; Publisher</td>
<td>3</td>
</tr>
<tr>
<td>BOPM 1245 Project Management V: Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>Total Semester Credits</td>
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</tr>
</tbody>
</table>
CARPENTRY DIPLOMA

Lab activities involve actual hands-on construction. Working models and mock-ups as well as actual recreational and storage buildings and garages may be constructed. Related instruction emphasizes math, blueprint reading, estimating, materials of construction, tools and equipment, principles of carpentry and safety.

CREDITS REQUIRED FOR GRADUATION: 31

SEMESTER I

PROGRAM REQUIREMENTS Credits
CARP 1221 Blueprint Reading and Estimating 3
CARP 1225 Hand & Power Tools 2
CARP 1226 Math for Carpenters 2
CARP 1231 Principles of Carpentry I-A Theory 2
CARP 1241 Principles of Carpentry I-A Lab 5
CARP 1229 Concrete 1
GECL 1155 College Seminar 1
Total Semester Credits 16

SEMESTER II

PROGRAM REQUIREMENTS Credits
CARP 1222 Planning & Estimating 2
CARP 1227 Introduction to Building Codes 1
CARP 1228 Cabinet Making 2
CARP 1232 Principles of Carpentry I-B Theory 3
CARP 1242 Principles of Carpentry I-B Lab 6
GECFL 2175 Job Search Strategies 1
Total Semester Credits 15
## 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.

**CREDITS REQUIRED FOR GRADUATION** 60

### SEMESTER I

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSER 1231 Introduction to Human Services</td>
<td>4</td>
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<tr>
<td>CDEP 1255 Psychology of Addiction</td>
<td>3</td>
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<tr>
<td>ENGL 1511 College Writing I</td>
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<td>GECL 1415 Freshman Year Experience</td>
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<tr>
<td>HSER 1465 Drug Use and Abuse</td>
<td>2</td>
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Total Semester Credits 14

### SEMESTER II

<table>
<thead>
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<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>HSER 1232 Helping Process</td>
<td>3</td>
</tr>
<tr>
<td>HSER 1233 Interviewing</td>
<td>2</td>
</tr>
<tr>
<td>CDEP 1261 Chemical Dependency Theories</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1512 College Writing II</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 2551 General Psychology</td>
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Total Semester Credits 16

### SEMESTER III

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>CDEP 2262 Chemical Dependency Assessment</td>
<td>3</td>
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<tr>
<td>PHIL 1551 Introduction to Ethics</td>
<td>3</td>
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<td>PSYC 2575 Introduction to Co-Occurring Disorders</td>
<td>4</td>
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<tr>
<td>PSYC 2655 Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1555 Public Speaking or Interpersonal Communications</td>
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Total Semester Credits 16
SEMIESTER IV

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HSER 2234</td>
<td>3</td>
</tr>
<tr>
<td>CDEP 2263</td>
<td>3</td>
</tr>
<tr>
<td>CDEP 2240</td>
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</tr>
<tr>
<td>Additional</td>
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<tr>
<td>Requirement</td>
<td></td>
</tr>
<tr>
<td>Any course in goal areas 1-10</td>
<td>3</td>
</tr>
<tr>
<td>Total Semester Credits</td>
<td>14</td>
</tr>
</tbody>
</table>

Internship for five (5) credits is sufficient for the A.A.S. degree, however, students will need an additional five (5) credit internship to meet state permit requirements or for licensure after a bachelor’s degree is obtained. Internship for five (5) credits is equal to 440 hours of on-site work under a Licensed Alcohol and Drug Counselor (LADC).

CHEMICAL DEPENDENCY SPECIALIST CERTIFICATE

28 Credits – Prerequisite – Bachelor Degree

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CDEP 1255</td>
<td>3</td>
</tr>
<tr>
<td>CDEP 1261</td>
<td>3</td>
</tr>
<tr>
<td>CDEP 2262</td>
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<td>CDEP 2263</td>
<td>3</td>
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<tr>
<td>CDEP 2240</td>
<td>5</td>
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<tr>
<td>CDEP 2240</td>
<td>5</td>
</tr>
<tr>
<td>HSER 1465</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 2575</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

This certificate is intended for those students who have completed a bachelor’s degree and are seeking licensure for Licensed Alcohol and Drug Counselor (LADC) through the Minnesota Board of Behavioral Health and Therapy. It satisfies the 270 hours of classroom clock hours required and the 880 hour internship hours (2 courses of CDEP 2240 Chemical Dependency Internships are equal to 880 hours) required to obtain a license in the state of Minnesota.

CONSTRUCTION MANAGEMENT AND SUPERVISION

TWO-YEAR A.S. DEGREE

(In conjunction with Inver Hills Community College)

The Associate of Science degree in Construction Management is designed for students who are interested in pursuing a baccalaureate or a professional degree in construction management, or training, as well as students preparing for career entry positions. This program will prepare students for supervisory and management positions in the construction industry. The curriculum combines basic fundamentals with key courses in applied management, engineering, design, and business that are required to manage complex construction projects.

*This course requires student to contact advisor for any transfer needs.
CREDITS REQUIRED FOR GRADUATION:  60

**SEMESTER I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1511</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1521</td>
<td>4</td>
</tr>
<tr>
<td>*CMSV 2870</td>
<td>3</td>
</tr>
<tr>
<td>*CMSV 2890</td>
<td>3</td>
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<tr>
<td>Total Semester Credits</td>
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**SEMESTER II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>ENGL 1532</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>3</td>
</tr>
<tr>
<td>*CMSV 2100</td>
<td>3</td>
</tr>
<tr>
<td>*CMSV 2875</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>3</td>
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<tr>
<td>Total Semester Credits</td>
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**SEMESTER III**

<table>
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<tr>
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<tbody>
<tr>
<td>ACCT 2691</td>
<td>4</td>
</tr>
<tr>
<td>*CMSV 2885</td>
<td>4</td>
</tr>
<tr>
<td>ECON 1556</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1561</td>
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**SEMESTER IV**

<table>
<thead>
<tr>
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<tr>
<td>*CMSV 2900</td>
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</tr>
<tr>
<td>ENGR 1355</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2875</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2556</td>
<td>4</td>
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<tr>
<td>** MnTC Electives</td>
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*(See program planner for more detailed information on course requirements)*

**CONSTRUCTION MANAGEMENT AND SUPERVISION CERTIFICATE**

CREDITS REQUIRED FOR GRADUATION:  30

**SEMESTER I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>*CMSV 2870</td>
<td>3</td>
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<tr>
<td>*CMSV 2890</td>
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## SEMESTER II

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>*CMSV 2100</td>
<td>Soils and Concrete Technology</td>
<td>3</td>
</tr>
<tr>
<td>*CMSV 2875</td>
<td>Mechanical and Electrical Systems</td>
<td>4</td>
</tr>
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<td>Total Semester Credits</td>
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## SEMESTER III

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>*CMSV 2885</td>
<td>Construction Estimating</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 2691</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
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## SEMESTER IV

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>*CMSV 2900</td>
<td>Construction Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1355</td>
<td>Engineering Drafting</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2675</td>
<td>Principles of Management</td>
<td>3</td>
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<td></td>
<td>Total Semester Credits</td>
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## EARLY CHILDHOOD/EARLY CHILDHOOD. SPECIAL EDUCATION

**TWO-YEAR A.A.S DEGREE**

The Early Childhood/Early Childhood Special Education A.A.S. Degree prepares you for employment in an Early Childhood setting. You will obtain the educational background and practical experience necessary to provide young children (birth to age eight) of varying abilities with developmentally appropriate learning experiences.

**CREDITS REQUIRED FOR GRADUATION:** 60

## SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAIA 1202</td>
<td>Guiding Children’s Development &amp; Behavior I</td>
<td>4</td>
</tr>
<tr>
<td>TAIA 1204</td>
<td>Communicating Constructively with Diverse Families</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 1515</td>
<td>Foundational Issues in</td>
<td></td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
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<tr>
<td>TAIA 2206</td>
<td>Trauma Informed Teaching</td>
<td>3</td>
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<tr>
<td>GECL 1415</td>
<td>Freshman Year Experience</td>
<td>1</td>
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<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication or</td>
<td></td>
</tr>
<tr>
<td>SPCH 1585</td>
<td>Intercultural Communication</td>
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**SEMESTER II**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>TAIA 1212</td>
<td>Environments for Learning</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1218</td>
<td>Health, Safety, &amp; Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1511</td>
<td>Foundations of Math or</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1415</td>
<td>Math for Elementary Teachers</td>
<td>4</td>
</tr>
<tr>
<td>HSER 1465</td>
<td>Drug Use &amp; Abuse</td>
<td>2</td>
</tr>
<tr>
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**SUMMER SEMESTER**

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EDUC 2516</td>
<td>Early Childhood Creative Expressions</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 1435</td>
<td>Methods of Teaching Early Childhood Literature</td>
<td>3</td>
</tr>
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<td></td>
<td>Transfer Option</td>
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</tr>
<tr>
<td>Semester Credits</td>
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<td>3 or 6</td>
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**SEMESTER III**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAIA 2202</td>
<td>Foundations in Assessment &amp; Special Education</td>
<td>4</td>
</tr>
<tr>
<td>TAIA 2214</td>
<td>Positive Behavior &amp; Guidance Techniques</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 2414</td>
<td>Infant &amp; Toddler Instructional Strategies</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
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**SEMESTER IV**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAIA 1220</td>
<td>Teaching Children with Challenging Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2415</td>
<td>Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2514</td>
<td>Preschool Instructional Strategies</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2567</td>
<td>Lifespan Psychology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

* Students transferring to Southwest State University will also need to enroll in EDUC 1435: Methods of Teaching Early Childhood Literature (3 credits) along with special requirements concerning English and Math courses.
ELECTRICAL CONTROLS AND MAINTENANCE
TWO-YEAR A.A.S. DEGREE

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

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

CREDITS REQUIRED FOR GRADUATION: 72

SEMESTER I

PROGRAM REQUIREMENTS                  Credits
ECM 1233    Intro to Solid State Electronics    4
ECM 1243    Intro to Digital Electronics     3
ECM 1244    Industrial Pneumatics             2
ECM 1253    Intro to DC/AC Electronics       4
ECM 1295    Basic Soldering                   1
GEDM 1175   Applied Technical Math           2
GECL 1155   College Seminar                   1
Total Semester Credits                   17

SEMESTER II

PROGRAM REQUIREMENTS                  Credits
ECM 1251   Programmable Logic Controllers    3
ECM 1260   Electrical Safety                 1
ECM 1265   National Electrical Code         2
ECM 1266   Industrial Motor Control         6
ECM 1275   Introduction to Process Control   2
ECM 1276   Electrical/Mechanical Tools, Equipment and Systems 2
CHEM 1511   Fundamentals of Chemistry        4
Total Semester Credits                  20
### SEMESTER III

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECM 2252</td>
<td>Advanced Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>ECM 2264</td>
<td>Automation Components and Equipment</td>
<td>2</td>
</tr>
<tr>
<td>ECM 2266</td>
<td>Temperature, Strain, and Analytical Instruments</td>
<td>3</td>
</tr>
<tr>
<td>ECM 2267</td>
<td>Pressure, Flow, and Level Instruments</td>
<td>3</td>
</tr>
<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1551</td>
<td>Introductory Physics or</td>
<td></td>
</tr>
<tr>
<td>PHYS 1561</td>
<td>College Physics I or</td>
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</tr>
<tr>
<td>PHYS 1541</td>
<td>Physical Science</td>
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<tr>
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<td><strong>Total Semester Credits</strong></td>
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### SEMESTER IV

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECM 2235</td>
<td>Industrial Data Communications</td>
<td>4</td>
</tr>
<tr>
<td>ECM 2276</td>
<td>Automated Industrial Control</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1532</td>
<td>Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1558</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives from MnTC Goal areas 5,6,7,or 9</td>
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<tr>
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<td><strong>Total Semester Credits</strong></td>
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### ELECTRICAL CONTROLS AND MAINTENANCE

TWO-YEAR DIPLOMA

**CREDITS REQUIRED FOR GRADUATION:** 67

### SEMESTER I

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECM 1233</td>
<td>Intro to Solid State Electronics</td>
<td>4</td>
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<tr>
<td>ECM 1243</td>
<td>Intro to Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ECM 1244</td>
<td>Industrial Pneumatics</td>
<td>2</td>
</tr>
<tr>
<td>ECM 1253</td>
<td>Intro to DC/AC Electronics</td>
<td>4</td>
</tr>
<tr>
<td>ECM 1295</td>
<td>Basic Soldering</td>
<td>1</td>
</tr>
<tr>
<td>GEDM 1175</td>
<td>Applied Technical Math</td>
<td>2</td>
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<tr>
<td>GECL 1155</td>
<td>College Seminar</td>
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### SEMESTER II

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<tr>
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<tbody>
<tr>
<td>ECM 1251 Programmable Logic Controllers</td>
<td>3</td>
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<tr>
<td>ECM 1260 Electrical Safety</td>
<td>1</td>
</tr>
<tr>
<td>ECM 1265 National Electric Code</td>
<td>2</td>
</tr>
<tr>
<td>ECM 1266 Industrial Motor Control</td>
<td>6</td>
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<tr>
<td>ECM 1275 Introduction to Process Control</td>
<td>2</td>
</tr>
<tr>
<td>ECM 1276 Electrical/Mechanical Tools, Equipment and Systems</td>
<td>2</td>
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<tr>
<td>ENGL 1532 Technical Writing or</td>
<td>3</td>
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<tr>
<td>GEDC 2176 Technical Communications</td>
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<td><strong>Total Semester Credits</strong></td>
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### SEMESTER III

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<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>ECM 2252 Advanced Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>ECM 2264 Automation Components and Equipment</td>
<td>2</td>
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<tr>
<td>ECM 2266 Temperature, Strain, and Analytical Instruments</td>
<td>3</td>
</tr>
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<td>ECM 2267 Pressure, Flow, and Level Instruments</td>
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<tr>
<td>ECM 2268 Automation Lab</td>
<td>2</td>
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<tr>
<td>GECL 2175 Job Search Strategies*</td>
<td>1</td>
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<tr>
<td>GECL 2185 Human Dynamics or</td>
<td>1</td>
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<tr>
<td>SOC 1558 Human Relations</td>
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<td><strong>Total Semester Credits</strong></td>
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### SEMESTER IV

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<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>ECM 2235 Industrial Data Communications</td>
<td>4</td>
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<tr>
<td>ECM 2245 Industrial PC Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECM 2276 Automated Industrial Control</td>
<td>5</td>
</tr>
<tr>
<td>ECM 2277 Controllers and Control Loops</td>
<td>2</td>
</tr>
<tr>
<td>ECM 2295 Computer Aided Design</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Semester Credits</strong></td>
<td>16</td>
</tr>
</tbody>
</table>
**GRAPHIC DESIGN MEDIA**
**TWO-YEAR A.A.S. DEGREE**

Prepare yourself for tomorrow by enrolling today! Be a part of the only two-year nationally accredited graphics program in Minnesota, be a part of the Mesabi Range College Graphic Design Media program. The multi-faceted training offered at Mesabi Range allows students to explore their creative side as they prepare for employment in today’s dynamic Graphic Communications industry.

**CREDITS REQUIRED FOR GRADUATION:** 73

**SEMESTER I**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GRAP 1268 Photograph</td>
<td>2</td>
</tr>
<tr>
<td>GRAP 1226 Introduction to Media</td>
<td>2</td>
</tr>
<tr>
<td>GRAP 1227 Layout and Imposition</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 1235 Imaging</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 1238 Video Editing and Lighting</td>
<td>4</td>
</tr>
<tr>
<td>GRAP 2251 Mac OS</td>
<td>1</td>
</tr>
<tr>
<td>GECL 1155 College Seminar</td>
<td>1</td>
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**SEMESTER II**

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<tr>
<td>GRAP 1228 Color Exploration</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 1245 Estimating for Media</td>
<td>2</td>
</tr>
<tr>
<td>GRAP 1248 Video Production</td>
<td>3</td>
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<tr>
<td>GRAP 1257 Motion Graphics</td>
<td>3</td>
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<tr>
<td>GRAP 1256 Quality Control in Media</td>
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<tr>
<td>GRAP 1266 Visual Communications</td>
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<tr>
<td><strong>Total Semester Credits</strong></td>
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**SEMESTER III**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GRAP 2252 Design &amp; Layout with InDesign</td>
<td>3</td>
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<tr>
<td>GRAP 2253 Elements of Design &amp; Typography</td>
<td>2</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
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</tr>
<tr>
<td>GRAP 2254</td>
<td>Adobe InDesign</td>
</tr>
<tr>
<td>GRAP 2261</td>
<td>Illustration with Adobe Illustrator</td>
</tr>
<tr>
<td>GRAP 2271</td>
<td>Adobe Photoshop &amp; Digital Photography</td>
</tr>
<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
</tr>
<tr>
<td>Total Semester Credits</td>
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**SEMESTER IV**

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<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>GARP 2245 Mobile App Development and Publishing</td>
<td>4</td>
</tr>
<tr>
<td>GRAP 2264 Advanced Design and Layout</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 2285 Animate</td>
<td>2</td>
</tr>
<tr>
<td>GRAP 2272 Dreamweaver and Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 2274 Industrial Portfolio Capstone Project</td>
<td>2</td>
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</table>

*Students will choose from a minimum of 15 credits from 3 areas of the Minnesota Transfer Curriculum.

**GRAPHIC DESIGN MEDIA**

**TWO-YEAR DIPLOMA**

**CREDITS REQUIRED FOR GRADUATION:** 64

**SEMESTER I**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<td>GRAP 1226 Introduction to Media</td>
<td>2</td>
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<tr>
<td>GRAP 1227 Layout and Imposition</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 1235 Imaging</td>
<td>3</td>
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<tr>
<td>GRAP 1238 Video Editing and Lighting</td>
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<tr>
<td>GRAP 2251 Mac OS</td>
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<tr>
<td>GEDM 1165 Technical Math</td>
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<td>GECL 1155 College Seminar</td>
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**SEMESTER II**

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<thead>
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<tbody>
<tr>
<td>GRAP 1228 Color Exploration</td>
<td>3</td>
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<tr>
<td>GRAP 1245 Estimating for Media</td>
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<tr>
<td>GRAP 1248 Video Production</td>
<td>3</td>
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<tr>
<td>GRAP 1256 Quality Control in Media</td>
<td>2</td>
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<tr>
<td>GRAP 1257 Motion Graphics</td>
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### SEMESTER III

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GRAP 2252</td>
<td>Design &amp; Layout with InDesign</td>
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<td>GRAP 2253</td>
<td>Elements of Design &amp; Topography</td>
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<tr>
<td>GRAP 2254</td>
<td>Adobe InDesign</td>
<td>3</td>
</tr>
<tr>
<td>GRAP 2261</td>
<td>Illustration with Adobe Illustrator</td>
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<tr>
<td>GRAP 2271</td>
<td>Adobe Photoshop &amp; Digital Photography</td>
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<td>GEDC 2176</td>
<td>Technical Communications</td>
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### SEMESTER IV

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>GRAP 2245</td>
<td>Mobile App Development and Publishing</td>
<td>4</td>
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<tr>
<td>GRAP 2264</td>
<td>Advanced Design and Layout</td>
<td>3</td>
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<tr>
<td>GRAP 2285</td>
<td>Animate</td>
<td>2</td>
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<tr>
<td>GRAP 2272</td>
<td>Dreamweaver and Web Page Design</td>
<td>3</td>
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<tr>
<td>GRAP 2274</td>
<td>Industrial Portfolio Capstone Project</td>
<td>2</td>
</tr>
<tr>
<td>GECL 2175</td>
<td>Job Search Strategies</td>
<td>1</td>
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<tr>
<td></td>
<td>Total Semester Credits</td>
<td>15</td>
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</table>

### HEALTH SCIENCES

**TWO-YEAR A.S. DEGREE**

Health Sciences are applied sciences that address the use of science, technology, engineering or mathematics in the delivery of healthcare. This is a field in which knowledge is taken from pure science and other related sources and applied to practical and clinical practices to maintain and improve the health of living beings.

**CREDITS REQUIRED FOR GRADUATION**

60 maximum

### SEMESTER I

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
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<tr>
<td>GECL 1415</td>
<td>Freshman Experience</td>
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<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
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<tr>
<td>BIOL 2551</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
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<tr>
<td>Elective</td>
<td>3 Elective form goal area 5 other than</td>
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<tr>
<td>Program Requirements</td>
<td>Credits</td>
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<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communications</td>
<td>3</td>
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<tr>
<td>BIOL 2552</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>MATH 1521</td>
<td>College Algebra</td>
<td>4</td>
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<tr>
<td>SOC 1555</td>
<td>Introduction to Sociology</td>
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**SEMESTER II**

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<tr>
<th>Program Requirements</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1551</td>
<td>College Biology I or Introduction to Biology</td>
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<tr>
<td>BIOL 1547</td>
<td>4</td>
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<tr>
<td>CHEM 1522</td>
<td>General Chemistry I or Fundamentals of Chemistry</td>
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<tr>
<td>CHEM 1511</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
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<tr>
<td>HLTH 2459</td>
<td>Introduction to Nutrition</td>
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**SEMESTER III**

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<tr>
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<tbody>
<tr>
<td>BIOL 1535</td>
<td>Introduction to Microbiology</td>
</tr>
<tr>
<td>PSYC 2567</td>
<td>Lifespan Development</td>
</tr>
<tr>
<td>STAT 2551</td>
<td>Statistics I</td>
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<tr>
<td>ENGL 1532</td>
<td>Technical Writing or</td>
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<tr>
<td>ENGL 1512</td>
<td>College Writing II</td>
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<tr>
<td>Elective</td>
<td>1 or 2 credit elective or 1 credit elective</td>
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<td>(Total for program must equal 60)</td>
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<tr>
<td>Total Semester Credits</td>
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</table>
HUMAN SERVICES
TWO-YEAR A.A.S DEGREE

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.

CREDITS REQUIRED FOR GRADUATION 60

SEMESTER I

PROGRAM REQUIREMENTS Credits
ENGL 1511 College Writing I 4
HSER 1465 Drug Use & Abuse 2
HSER 1231 Introduction to Human Services** 4
PSYC 2551 General Psychology** 4
Total Semester Credits 14

SEMESTER II

PROGRAM REQUIREMENTS Credits
ENGL 1512 College Writing II 4
HSER 1232 Helping Process** 3
HSER 1233 Interviewing** 2
SPCH 1555 Public Speaking or 
SPCH 1565 Interpersonal Communication 3
Electives: General Education Courses 3
Total Semester Credits 15
### SEMESTER III

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>HSER 2245 Human Services Internship*</td>
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<tr>
<td>SOC 1558 Human Relations</td>
<td>3</td>
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<tr>
<td>PSYC 2655 Group Dynamics**</td>
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<tr>
<td>PSYC 2575 Introduction to Co-Occurring Disorders</td>
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<td>Required Electives;</td>
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<tr>
<td>CDEP 1255 Psychology of Addiction or</td>
<td>3</td>
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<tr>
<td>CDEP 1261 Chemical Dependency Theories</td>
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Total Semester Credits: 15

### SEMESTER IV

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>HSER 2234 Crisis Intervention**</td>
<td>3</td>
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<tr>
<td>HSER 2245* Human Services Internship</td>
<td>2</td>
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<tr>
<td>PHIL 1551 Introduction to Ethics</td>
<td>3</td>
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<tr>
<td>Electives Math/Science Minimum</td>
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<td>Additional General Education courses</td>
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* Field Work – required total of four (4) credits. May be taken as four (4) credits - HSER 2240 in one semester of two (2) credits in each of the third and fourth semester – HSER 2245.

** Must be taken in the semester indicated

---

**INDUSTRIAL MECHANICAL TECHNOLOGY**  
**TWO-YEAR A.A.S. DEGREE**

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.

CREDITS REQUIRED FOR GRADUATION  60-62  

### SEMESTER I

<table>
<thead>
<tr>
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<tr>
<td>IMT 1231</td>
<td>Industrial Accident Prevention I</td>
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<tr>
<td>IMT 1237</td>
<td>Elements of Mechanics – Equipment Operations</td>
</tr>
<tr>
<td>IMT 1241</td>
<td>Basic Blueprint Reading &amp; Sketching I</td>
</tr>
<tr>
<td>IMT 1251</td>
<td>Basic Maintenance Welding &amp; Cutting I</td>
</tr>
<tr>
<td>CSCI 1400</td>
<td>Computer Essentials</td>
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<td>GEDM 1165</td>
<td>Technical Mathematics</td>
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<td>GECL 1155</td>
<td>College Seminar</td>
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**SEMESTER II**

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<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>IMT 1232</td>
<td>Industrial Accident Prevention II</td>
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<tr>
<td>IMT 1238</td>
<td>Rigging</td>
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<td>IMT 1245</td>
<td>Lubrication and Bearings</td>
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<tr>
<td>IMT 1256</td>
<td>Drive Components &amp; Troubleshooting</td>
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<tr>
<td>IMT 1257</td>
<td>Measuring Tools and Layout</td>
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<tr>
<td>ENGL 1511</td>
<td>College Writing I or</td>
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<td>Technical Writing</td>
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**SEMESTER III**

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<tr>
<td>IMT 1235</td>
<td>Basic Hydraulic Symbols and Components</td>
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<tr>
<td>IMT 1252</td>
<td>Basic Maintenance Welding and Cutting II</td>
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<tr>
<td>IMT 2225</td>
<td>Pumps</td>
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<tr>
<td>IMT 2231</td>
<td>Safety &amp; Equipment and Maintenance I</td>
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<tr>
<td>PAS 1235</td>
<td>Electrical for Industrial Mechanical Technology</td>
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<tr>
<td>PHYS 1541</td>
<td>Physical Science or</td>
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<tr>
<td>PHYS 1551</td>
<td>Introduction to Physics</td>
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<td>GEDC 2175</td>
<td>Job Search Strategies</td>
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**SEMESTER IV**

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<tr>
<td>IMT 1242</td>
<td>Basic Blueprint Reading and Sketching II</td>
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<td>IMT 1247</td>
<td>Hydraulics Basics</td>
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<tr>
<td>IMT 2232</td>
<td>Safety &amp; Equipment and Maintenance II</td>
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</table>
PSYC 2655  Group Dynamics or
SOC 1558  Human Relations  3
SPCH 1550  Intro to Communication or
SPCH 1565  Interpersonal Communication  3
PHIL 1551  Introduction to Ethics  3
Total Semester Credits  17

INDUSTRIAL MECHANICAL TECHNOLOGY
TWO-YEAR DIPLOMA

CREDITS REQUIRED FOR GRADUATION: 60

FRESHMAN YEAR - FALL SEMESTER

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
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<th>Title</th>
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<tr>
<td>IMT 1231</td>
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<td>IMT 1235</td>
<td>Basic Hydraulic Symbols &amp; Components</td>
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<td>IMT 1237</td>
<td>Elements of Mechanic/Equipment Operations</td>
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<td>IMT 1238</td>
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<tr>
<td>IMT 1241</td>
<td>Basic Blueprint Reading &amp; Sketching I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 1251</td>
<td>Basic Maintenance Welding &amp; Cutting I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 1257</td>
<td>Measuring Tools &amp; Layout</td>
<td>1</td>
</tr>
<tr>
<td>GEDM 1165</td>
<td>Technical Math</td>
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</tr>
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<td>GECL 1155</td>
<td>College Seminar</td>
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FRESHMAN YEAR - SPRING SEMESTER

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>IMT 1232</td>
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<tr>
<td>IMT 1242</td>
<td>Basic Blueprint Reading &amp; Sketching II</td>
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<tr>
<td>IMT 1245</td>
<td>Lubrication &amp; Bearings</td>
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<td>IMT 1247</td>
<td>Hydraulic Basics</td>
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<td>IMT 1252</td>
<td>Basic Maintenance Welding &amp; Cutting II</td>
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<td>IMT 1256</td>
<td>Drive Components Troubleshooting</td>
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<td>Computer Essentials</td>
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SOPHOMORE YEAR - FALL SEMESTER

PROGRAM REQUIREMENTS

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMT 2225</td>
<td>Pumps</td>
<td>2</td>
</tr>
</tbody>
</table>
IMT 2231  Safety & Equipment Maintenance I  3
IMT 2251  Advanced Maintenance Welding & Cutting  3
IMT 2261  Hydraulics & Schematics  3
IMT 2265  Alignment & Introduction to Conveyor Systems  2
ITSF 1486  MSHA New Miner  1
GECL 2175  Job Search  1
Total Semester Credits  15

SOPHOMORE YEAR- SPRING SEMESTER

PROGRAM REQUIREMENTS  Credits
IMT 2232  Safety & Equipment Maintenance II  4
IMT 2242  Advanced Blueprint Reading  3
IMT 2262  Pneumatics & Hydraulic Troubleshooting  3
PAS 1235  Electrical for Industrial Mechanical Technology  2
EMSV 1488  Heart Saver/First Aid/AED & CPR  1
Total Semester Credits  13

MASONRY
ONE-YEAR 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.

CREDITS NEEDED FOR GRADUATION - 30

SEMESTER 1

PROGRAM REQUIREMENTS  Credits
MASN 1221  Blueprint Reading and Estimating  2
MASN 1222  Planning and Estimating  1
MASN 1223  Principle of Block Laying  5
MASN 1224  Mortar/concrete  2
MASN 1225  Hand & Power Tools  2
MASN 1226  Math for Masons  2
MASN 1227  Intro to Building Codes  1
MASN 2257  Scaffolding  1
GECL 2175  Job Search Strategies  1
GECL 1155  College Seminar  1
Total Semester Credits  18

SEMESTER II

PROGRAM REQUIREMENTS  Credits
MASN 1233  Principles of Bricklaying  6
MASN 1243  Principles of Stonework  6
Total Semester Credits  12

NURSING

NURSING – NURSING ASSISTANT (NUNA)

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 course consists of lecture, lab, text work, group activities and hands-on clinical experience in a long-term setting.

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.

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

- Completion of this course will entitle the student to take the Minnesota State Competency Examination. The 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.
- This course is part of the Practical Nursing Program and must be completed prior to semester II of the Practical Nursing Program.

**PRACTICAL NURSING (NURS)**
**TWO SEMESTERS – DIPLOMA**

The Mesabi Range College Practical Nursing program is a member of the Itasca Nursing Education Consortium (INEC). This enables the nursing student to continue his or her 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.

**PRE_PROGRAM COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1415</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(Students may take BIOL 2551 &amp; 2552, Human Anatomy &amp; Physiology I &amp; II, in place of BIOL 1415 but BOTH I &amp; II MUST BE COMPLETED and must be completed prior to starting Semester I).</td>
<td></td>
</tr>
<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>NUNA 1215</td>
<td>Introduction to Nursing (Nursing Assistant)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Require to be taken within two years prior to starting Semester I, unless currently on</td>
<td></td>
</tr>
</tbody>
</table>
the Minnesota CNA Registry and working as a CNA. (NUNA 1211 will be accepted in lieu of NUNA 1215).

CPR (BLS for the Healthcare Provider). It is required that all students be certified prior to entering Semester I and must remain certified throughout Semester II.

** Student must achieve a letter grade of "C" or higher on all pre-program courses

*** Accuplacer Test. Must score at least 55 in Elementary Algebra OR take MATH 0095 Intermediate Algebra.

** This course is not required but is recommended.**

ATI 3-Day Live Review. (MANDATORY).

**There will be a fee attached to NURS 1243 for both ATI’s Comprehensive Predictor Exam and ATI’s 3-Day Customized Live Review. The 3-Day Live Review is held at Mesabi Range College’s Eveleth campus at the end of the 2nd semester. **

---

**SEMESTER 1**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS 1227</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>NURS 1230</td>
<td>Nursing Math, Medication, &amp; Skills</td>
<td>6</td>
</tr>
<tr>
<td>NURS 1233</td>
<td>Mental Health Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURS 1234</td>
<td>Nursing Care of the Older Adult</td>
<td>3</td>
</tr>
<tr>
<td>NURS 1239</td>
<td>Clinical I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Semester Credits</strong></td>
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</table>

**SEMESTER II**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURS 1231</td>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>NURS 1240</td>
<td>Transition into Practice</td>
<td>1</td>
</tr>
<tr>
<td>NURS 1241</td>
<td>Maternal/Child Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 1243</td>
<td>Nursing Care of the Adult</td>
<td>4</td>
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<tr>
<td>NURS 1249</td>
<td>Clinical II</td>
<td>4</td>
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<tr>
<td></td>
<td><strong>Total Semester Credits</strong></td>
<td><strong>14</strong></td>
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</table>

NURS 1275 NCLEX Review 2 (Elective)
PARAMEDIC
TWO-YEAR A.A.S. DEGREE
Graduates of this Associate of Applied Science 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.

CREDITS REQUIRED FOR GRADUATION       67

SEMESTER I

PROGRAM REQUIREMENTS

PREREQUISITES:
Current CPR Healthcare Provider Certification (AHA Guidelines)
Current EMT-Basic Certification (State of Minnesota)

SEMESTER I

PROGRAM REQUIREMENTS                  Credits
EMTP 1120  Paramedicine I              3
EMTP 1220  Paramedicine Skills I       3
EMTP 1225  Pharmacology                2
EMTP 1235  Drug Dosage Calculations for 2
           the Paramedic
EMTP 1420  Paramedicine II             3
EMTP 1520  Paramedic Skills II         3
GECL 1155  College Seminar             1
Total Semester Hours                   17

SEMESTER II

PROGRAM REQUIREMENTS                  Credits
EMTP 1246  Introduction to Prehospital 1
           Advanced Life Support
EMTP 1256  Paramedic Clinical I        1
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 1650</td>
<td>Paramedic Clinical II</td>
<td>4</td>
</tr>
<tr>
<td>EMTP 2020</td>
<td>Paramedicine III</td>
<td>4</td>
</tr>
<tr>
<td>EMTP 2220</td>
<td>Paramedicine IV</td>
<td>3</td>
</tr>
<tr>
<td>EMPT 2300</td>
<td>ACLS Provider</td>
<td>1</td>
</tr>
<tr>
<td>EMTP 2320</td>
<td>International Trauma Life Support</td>
<td>1</td>
</tr>
<tr>
<td>EMTP 2340</td>
<td>PALS Provider</td>
<td>1</td>
</tr>
<tr>
<td>EMTP 2360</td>
<td>NRP Provider Course</td>
<td>1</td>
</tr>
<tr>
<td>EMTP 2380</td>
<td>AMLS Provider Course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Semester Credits</td>
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**SEMESTER III**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EMTP 1800</td>
<td>ALS Ambulance Clinical</td>
<td>4</td>
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<tr>
<td>EMTP 2120</td>
<td>Hazardous Materials</td>
<td>1</td>
</tr>
<tr>
<td>EMTP 2450</td>
<td>Paramedic Clinical III</td>
<td>6</td>
</tr>
<tr>
<td>EMTP 2600</td>
<td>Paramedic Internship</td>
<td>6</td>
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<tr>
<td></td>
<td>Total Semester Credits</td>
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</table>

**SEMESTER IV**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 1415</td>
<td>Introduction to Anatomy and</td>
<td>4</td>
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<tr>
<td></td>
<td>Physiology</td>
<td></td>
</tr>
<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Semester Hours</td>
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</tr>
</tbody>
</table>

**PARAMEDIC**

THREE SEMESTER - DIPLOMA

**CREDITS REQUIRED FOR GRADUATION:** 52

**PREREQUISITES:**
Current CPR Healthcare Provider Certification (AHA Guidelines)
Current [EMT-Basic Certification](#) (State of Minnesota)

**SEMESTER I**

**PROGRAM REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 1120</td>
<td>Paramedicine I</td>
<td>3</td>
</tr>
<tr>
<td>EMTP 1220</td>
<td>Paramedicine Skills I</td>
<td>3</td>
</tr>
<tr>
<td>EMTP 1225</td>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>EMTP 1235</td>
<td>Drug Dosage Calculations for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Paramedic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Semester Credits</td>
<td></td>
</tr>
<tr>
<td>EMTP 1420</td>
<td>Paramedicine II</td>
<td>3</td>
</tr>
</tbody>
</table>
EMTP 1520  Paramedic Skills II  3
GECL 1155  College Seminar  1
Total Semester Hours  17

SEMESTER II

PROGRAM REQUIREMENTS Credits
EMTP 1246  Introduction to Prehospital Advanced Life Support  1
EMTP 1256  Paramedic Clinical I  1
EMTP 1650  Paramedic Clinical II  4
EMTP 2020  Paramedicine III  4
EMTP 2220  Paramedicine IV  3
EMPT 2300  ACLS Provider  1
EMTP 2320  International Trauma Life Support  1
EMTP 2340  PALS Provider  1
EMTP 2360  NRP Provider Course  1
EMTP 2380  AMLS Provider Course  1
Total Semester Credits  18

SEMESTER III

PROGRAM REQUIREMENTS Credits
EMTP 1800  ALS Ambulance Clinical  4
EMTP 2120  Hazardous Materials  1
EMTP 2450  Paramedic Clinical III  6
EMTP 2600  Paramedic Internship  6
Total Semester Credits  17

TEACHER’S ASSISTANT/INSTRUCTIONAL AID
TWO-YEAR A.A.S DEGREE

The Teacher’s Assistant/Instructional Aid Degree consists of 60 semester credits. This degree prepares graduates for employment as a paraprofessional educator in a Kindergarten – 12th grade school district or early childhood program. The curriculum is developed to cover the nine Minnesota Core Competency Areas. Graduates who decide to continue their education, and are interested in a professional education, need to work closely with their advisor to ensure that their career goals are achieved.

CREDITS REQUIRED FOR GRADUATION:  60
## SEMESTER I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TAIA 1202</td>
<td>Guiding Children’s Development &amp; Behavior I</td>
<td>4</td>
</tr>
<tr>
<td>TAIA 1204</td>
<td>Understanding &amp; Communicating with Diverse Families</td>
<td>2</td>
</tr>
<tr>
<td>TAIA 1214</td>
<td>Experiential Learning in the Elementary/Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1216</td>
<td>Professionalism on the Education Team</td>
<td>3</td>
</tr>
<tr>
<td>GECL 1415</td>
<td>Freshman Year Experience</td>
<td>1</td>
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</table>

Total Semester Credits: 13

## SEMESTER II

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TAIA 1212</td>
<td>Environments for Learning</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1218</td>
<td>Health, Safety, &amp; Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1511</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1511</td>
<td>Foundations of Math or Math for Elementary Teachers</td>
<td>3/4</td>
</tr>
<tr>
<td>HSER 1465</td>
<td>Drug Use &amp; Abuse</td>
<td>2</td>
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</table>

Total Semester Credits: 15/16

## SEMESTER III

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAIA 2202</td>
<td>Foundations in Assessment &amp; Special Education</td>
<td>4</td>
</tr>
<tr>
<td>TAIA 2206</td>
<td>Trauma Informed Teaching</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 2214</td>
<td>Positive Behavior &amp; Guidance Techniques</td>
<td>2</td>
</tr>
<tr>
<td>SPCH 1585</td>
<td>Intercultural Communication or Interpersonal Communication</td>
<td>3/2</td>
</tr>
<tr>
<td>PSYC 2551</td>
<td>General Psychology</td>
<td>4</td>
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</tbody>
</table>

Total Semester Credits: 16

## SEMESTER IV

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAIA 2208</td>
<td>Assisting with Language &amp; Literacy</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1208</td>
<td>Guiding Children’s Development &amp; Behavior II</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 2212</td>
<td>Assisting with math &amp; Science</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1220</td>
<td>Teaching Children with Challenging</td>
<td></td>
</tr>
</tbody>
</table>
**Behaviors** 3  
**PSYC 2567** Lifespan Psychology 4  
Total Semester Credits 16

**PARAPROFESSIONAL CERTIFICATE**

The Paraprofessional Certificate is comprised of 28 semester credits with the Para Pro Test embedded into the curriculum in order to prepare individuals to work in a variety of positions in a school district including, but not limited to, instructional assistants, Title I paraprofessionals, pupil support assistants, special education paraprofessionals, job coaches, lunch room and playground assistants, hall monitors, and media center assistants. Many Paraprofessionals work primarily with students who have special educational needs.

**CREDITS REQUIRED FOR GRADUATION:** 28

**SEMESTER I**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAIA 1202  Guiding children’s Development &amp; Behavior I</td>
<td>4</td>
</tr>
<tr>
<td>TAIA 1204  Communicating Constructively with Diverse Families</td>
<td>2</td>
</tr>
<tr>
<td>TAIA 1216  Professionalism on the Education Team</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 2202  Foundations in Assessment &amp; Special Education</td>
<td>4</td>
</tr>
<tr>
<td>Total Semester Credits</td>
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**SEMESTER II**

<table>
<thead>
<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAIA 1208  Guiding Children’s Development &amp; Behavior II</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1214  Experiential Learning in the Elementary/Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 1220  Teaching Children with Challenging Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 2212  Assisting with Math &amp; Science</td>
<td>3</td>
</tr>
<tr>
<td>TAIA 2208  Assisting with Language &amp; Literacy</td>
<td>3</td>
</tr>
<tr>
<td>Total Semester Credits</td>
<td>15</td>
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</tbody>
</table>
SUPERVISORY MANAGEMENT
CERTIFICATE

This certificate program is a combination of courses that may be taken throughout the year.

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 1655</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2655</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2675</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 2677</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 1551</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 1565</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

WELDING TECHNOLOGY
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 Technology 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.

CREDITS REQUIRED FOR GRADUATION: 65

SEMESTER I

PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WELD 1221</td>
<td>Intro SMAW</td>
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</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>-------------</td>
<td>----------------------------------------------</td>
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</tr>
<tr>
<td>WELD 1222</td>
<td>Basic SMAW Skills</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1223</td>
<td>SMAW Low Hydrogen Skills</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1224</td>
<td>SMAW Alloyed Metals Skills</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1231</td>
<td>Intro to Thermal Cutting Processes</td>
<td>1</td>
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<tr>
<td>WELD 1232</td>
<td>Flame Joining Processes</td>
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<tr>
<td>WELD 1233</td>
<td>Cutting and Gouging Processes</td>
<td>4</td>
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<tr>
<td>WELD 1255</td>
<td>Welding Mathematics</td>
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<tr>
<td>ENGL 2446</td>
<td>Critical Thinking</td>
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<td>GECL 1155</td>
<td>College Seminar</td>
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**SEMESTER II**

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<tr>
<th>PROGRAM REQUIREMENTS</th>
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<tbody>
<tr>
<td>WELD 1241 Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>WELD 1251 Assigned Projects</td>
<td>1</td>
</tr>
<tr>
<td>WELD 1261 Gas Metal Arc Welding I</td>
<td>1</td>
</tr>
<tr>
<td>WELD 1262 Gas Metal Arc Welding II</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1271 Gas Tungsten Arc Welding I</td>
<td>3</td>
</tr>
<tr>
<td>WELD 1272 Gas Tungsten Arc Welding II</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1281 Flux Cored Arc Welding I</td>
<td>2</td>
</tr>
<tr>
<td>WELD 1282 Flux Cored Arc Welding II</td>
<td>2</td>
</tr>
<tr>
<td>GEDC 2176 Technical Communications</td>
<td>2</td>
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<td>Total Semester Credits</td>
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**SEMESTER III**

<table>
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<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>WELD 2240 Properties of Welding I</td>
<td>1</td>
</tr>
<tr>
<td>WELD 2242 Advanced Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>WELD 2244 SMAW – Structural</td>
<td>2</td>
</tr>
<tr>
<td>WELD 2245 GTAW – Pipe &amp; Tube</td>
<td>3</td>
</tr>
<tr>
<td>WELD 2252 Gas Tungsten Arc Welding III</td>
<td>3</td>
</tr>
<tr>
<td>WELD 2265 CNC Programming and Cutting</td>
<td>3</td>
</tr>
<tr>
<td>WELD 2275 Stainless Steel Welding</td>
<td>2</td>
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<td>Total Semester Credits</td>
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**SEMESTER IV**

<table>
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<tr>
<th>PROGRAM REQUIREMENTS</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>WELD 2241 Shielded Metal Arc Welding – Pipe</td>
<td>5</td>
</tr>
<tr>
<td>WELD 2243 Flux Core Arc Welding III</td>
<td>4</td>
</tr>
<tr>
<td>WELD 2251 Gas Metal Arc Welding III</td>
<td>4</td>
</tr>
<tr>
<td>WELD 2253 Template Development</td>
<td>2</td>
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**Advanced Minnesota**: Five colleges. One training solution.

The Northeast Higher Education District (NHED) is responding to the needs of its regional businesses and industries by becoming more efficient in delivery of its services. The perfect example of this is NHED’s strategic enterprise--Advanced Minnesota: Five colleges. One training solution.

Advanced Minnesota now integrates five existing customized training and continuing education departments at Hibbing Community College, Mesabi Range College, Itasca Community College, Rainy River Community College, Vermilion Community College, and a district-wide initiative known as Arrowhead University upper division programming partnerships, into a region-wide, interdependent operation that retains direct client access and program delivery on the NHED college campuses and removes duplication of resources, and oftentimes competition. This interdependent approach assertively addresses NHED’s need to:

- Meet the increasing demand from regional business and industry for qualified workers
- Provide a single point of contact for all clients seeking customized training and continuing education programming
- Implement an aggressive strategy, driving marketing and business development which in turn will facilitate the identification and exploitation of new opportunities
- Align resources required for effective program delivery and development of new clients

As the training provider of choice for northeastern Minnesota, everything we do builds individual skills and regional economic vitality. For more information, please visit us at [www.advancedmn.org](http://www.advancedmn.org).

**Credit for Prior Learning**

Mesabi Range College recognizes the educational importance of learning accomplished outside traditional academic settings. In taking the position that what is learned is educationally more important than where or how it is learned, Mesabi Range College offers the possibility of formally granting credit for prior learning from adult life and work experience.

Credit granted for demonstrated prior experiential learning may be applied toward the fulfillment of education objectives of participating Mesabi Range College programs. Credit is awarded for college level learning that can be demonstrated, articulated, documented, or otherwise communicated. Evidence that the prior learning is comparable to the content of a particular course of study at Mesabi Range College must be provided. Individuals must follow proper procedures and meet specific guidelines and course requirements in order to receive CPL credits.

The Credit for Prior Learning initiative has the following goals:

- To provide credit for past work/life-long learning and/or educational achievement to those who demonstrate evidence of knowledge and proficiency, using the Course Equivalence Credit Model.
- To eliminate duplication of a student’s educational effort, while maintaining a high standard of educational quality, to insure the student’s future occupational success.
- To maintain the College’s integrity and accreditation, as an institution of higher education, through valid and reliable evaluation by appropriate college personnel.
**Listed Alphabetically by Class, Course, or Program**

**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.  
Prerequisite: ACCT 2661

**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.  
Prerequisite: Minimum CPT Score of 72, or “C” or better in READ 0092 and MATH 0094

**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. 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, Minimum CPT Score of 72, or “C” or better in READ 0092 and MATH 0094

**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, preliterate, 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 ENGL or 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, archeology, 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 worldwide. 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 I – Prehistoric to Early Renaissance
(3 Lec; 3 Cr)
Goal 6
This course is a survey of ancient, medieval, and renaissance art to the 17th century, with emphasis on architecture, painting, sculpture, and other relevant forms of artistic expression 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, 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 1542
Design
(2 Lec; 2 Cr)
Goal 6
This introductory course offers the student an opportunity to examine two-dimensional design. Art elements and principles of design are studied and applied in reinforcing compositional skills.
Prerequisite: Art 1541

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. Prerequisite: ART 1551

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
BIOLOGY

BIOL 1415
Introduction to Anatomy and Physiology
(3 Lec, 1 Lab; 4 Cr)
Goal 3
This one semester course is designed as an introduction to human anatomy and physiology for students who have minimal background in biological science. The focus includes principles of cells, metabolism and the chemical basis of life; as well as organ systems of support and movement, integration and coordination, transport, absorption and excretion, and the human life cycle. Emphasis is on the interrelatedness and interdependency of organ systems.
Prerequisite: College level reading

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.
Prerequisite: College Level Reading

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: College Level Reading, placement by CPT score or a grade of C or better in MATH 0091 (or previous course MATH 090)
BIOL 1545
Human Biology I
(3 Lec, 1 Lab; 4 Cr)
Goal 3
This course is designed for the non-science major and is a general introduction to human biology with a structure/function approach. Major topics include cell biology, transmission genetics, and anatomy and physiology of body systems.
Prerequisite: College Level Reading, Placement by CPT score or a grade of C or better in MATH 0091 (or previous MATH 090)

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: College Level Reading, Placement by CPT score or a grade of C or better in MATH 0091 (or previous course MATH 090)

BIOL 1547
Introduction to Biology
(3 Lec; 1 Lab; 4 Cr)
Major topics include basic cell biology and metabolism, chemistry of life, inheritance and genetics, evolution, diversity, and ecology. This class is intended for health careers and those who need preparation to enter an advanced biology pathway. This course is not a major’s level biology.
Prerequisite: College level reading, C or better in Math 0095

BIOL 1551
College Biology I
(4 Lec, 1 Lab; 5 Cr)
Goal 3
This is the first course of a two-semester biology major sequence. This course includes the study of cell structure, function and metabolism, cell division, inheritance, and genetics and evolution and the diversity of life.
Prerequisite: College Level Reading, MATH 0090 or placement

BIOL 1552
College Biology II
(4 Lec, 1 Lab; 5 Cr)
Goal 3 & 10
This is the second course of a two-semester biology major sequence. This course covers the diversity of life including taxonomy, morphology, physiology and ecology. Organismal interactions and environmental influence are considered.
Prerequisite: BIOL 1551 (or previous course BIOL 111 and 112), College Level Reading, MATH 0090 or placement.
BIOL 1548
Plants and Society
(3 Lec; 1 Lab; 4 Cr)
This course covers basic principles in botany and ecology placing a strong emphasis on the economic aspects and social implications of plants, algae, and fungi. This is not a biology major level course.
Prerequisite: College level Reading, MATH 0090 or placement

BIOL 2315
Science Internship
(1-4 Cr)
This course offers the student an opportunity to apply the principles and skills learned in the classroom to gain practical experience in an on-the-job training opportunity. Students will need to apply for positions through the instructor and most job opportunities will be during the summer.
Prerequisite: BIOL 1551, CHEM 1522, College Level Reading, College Algebra or higher

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.
Prerequisite: BIOL 2551 & 2552 (or instructor consent), College Level Reading, Placement by CPT score or a grade of C or better in MATH 0091 (previous MATH 090)

BIOL 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.
Prerequisite: BIOL 1545, College Level Reading, placement by CPT score or a grade of C or better in MATH 0091 (or previous course MATH 090)

BIOL 2435
Special Topics in Biology
(1-3 Cr)
Topics to be arranged based on student interest and each will include a biotechnology component. Possible topics include (but are not limited to) biotechnology, forensics, evolution, genetic engineering, and recombinant DNA.
Prerequisite: BIOL 1551 or BIOL 2536 or BIOL 2551 or instructor consent, College Level Reading, MATH 0093 or Equivalent CPT score
BIOL 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)

BIOL 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: Corequisite BIOL 2552 and college level reading (Computer skills helpful)

BIOL 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 1511, or BIOL 2551 (or instructor consent), college level reading, and High School Algebra; placement by CPT score or a grade of C or better in MATH 0094 (or previous course MATH 098)

BIOL 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
BIOL 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

BIOL 2556
Genetics
(3 Lec; 3 Cr)
Goals 3 & 9
This course provides an introduction to genetics including topics in transmission, molecular, and
population genetics. Special emphasis will be placed on the social impact and ethical considerations
of advances in genetic research.
Prerequisite: BIOL 1551 or instructor’s consent, College Level Reading, Math 0093 or equivalent
CPT score

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.
Prerequisite: ENGL 1511 College Writing I

BUS 1666
Principles of Marketing
(3 Lec; 3 Cr)
This course is an introductory study of marketing as an important element of our economy. This
course examines 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.
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.

BUSINESS OPERATIONS & MANAGEMENT

BOPM 1241  
Project Management 1: Microsoft Word  
(2 Lec, 1 Lab; 3 Cr)  
This course will introduce the basic and intermediate features of Microsoft Word. Students will develop strategies for determining best application use. This course will teach students steps to use Microsoft Word effectively and efficiently for a variety of business needs. Students will continue to develop keyboarding skills for speed and accuracy. Students will learn document creation, layout, and design.

BOPM 1242  
Project Management II: Microsoft Excel  
(2 Lec, 1 Lab; 3 Cr)  
This is a comprehensive course exploring the functions and practical applications in using Microsoft Excel which includes creating worksheets and charts, using a financial database, and problem-solving functions.
**BOPM 1243**  
*Project Management III: Records/Data Management*  
(3 Lec; 3 Cr)  
The Records/Data Management course is designed to provide a comprehensive introduction to the complex field of records and information management. Emphasis will be placed on learning the principles and practices of effective records and information management for physical and electronic record systems.

**BOPM 1244**  
*Project Management IV: Digital Business Presentations*  
(2 Lec, 1 Lab; 3 Cr)  
Students will develop digital communication skills to support work in a professional business environment. These digital communications will support employer needs and enhance internal and external business communications with a variety of stakeholders. This course provides comprehensive coverage software, delivery methods, tools, techniques, and methodologies that develop and enhance the skills necessary to effectively and efficiently create professional business materials and presentations.

**BOPM 1245**  
*Project Management V: Microsoft Access*  
(2 Lec, 1 Lab; 3 Cr)  
This is a comprehensive course exploring the functions and practical applications in using Microsoft Access. Students will learn how to create a database; add, change, and delete data in the database; sort and retrieve the data; and create forms and reports using the data.

**BOPM 1246**  
*Keyboarding*  
(2 Lec, 1 Lab; 3 Cr)  
The objective of the course is to teach proper typing techniques, to build speed and accuracy, and to utilize a professional word processing system for business applications, such as document storage and retrieval, editing, and document distribution. Students develop fundamental skills by mastering the alphabetic keyboard, top-row numbers, symbols, and the numeric keypad.

**BOPM 1251**  
*Operations Management I: The Professional Office*  
(3 Lec; 3 Cr)  
This course prepares students for the realistic situations, tasks and problems they will encounter in a state-of-the-art office environment. Increased emphasis is given to help students understand employers' expectations, build confidence, and develop into strong, competent employees and leaders.

**BOPM 1252**  
*Operations Management II: Business Accounting with QuickBooks*  
(2 Lec, 1 Lab; 3 Cr)  
This course is an introduction to fundamental accounting concepts and includes analyzing, interpreting, and recording transactions. The course includes the preparation of financial statements, bank reconciliations, and payroll transactions. The use of QuickBooks will be integrated into this course emphasizing the use of personal computers to process accounting data.
BOPM 2253
Operations Management III: Customer Relations in a Global Environment
(3 Lec: 3 Cr)
The course presents a practical approach to understanding, implementing, and practicing the principles of customer service within different types of organizations. Students will examine service strategies in different organizations and businesses, learn about different supporting tools and techniques to provide quality service, and analyze customer information to identify opportunities for service improvement.

BOPM 2261
Capstone Project
(3 Cr)
The BOPM Capstone Course is the comprehensive integration of various competencies including business knowledge, data management, computer techniques and communication skills.

CARPENTRY

CARP 1221
Blueprint Reading and Estimating I
(1 Lec, 2 Lab; 3 Cr)
This course covers the basics of reading and drawing blueprints for residential construction and estimating material requirements and creating material lists.

CARP 1222
Blueprint Reading and Estimating II
(2 Lec; 2 Cr)
This course covers advanced approaches to identifying and understanding blueprint drawing and details of residential and commercial construction.
Prerequisite: CARP 1221

CARP 1225
Hand and Power Tools
(2 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 him or her 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.
Prerequisite: CARP 1221 and CARP 1225

CARP 1229
Concrete
(1 Lab; 1 Cr)
This course includes actual “hands on” experience of the installations of concrete structures.

CARP 1231
Principles of Carpentry I-A - Theory
(2 Lec; 2 Cr)
This course is designed to teach and apply safety regulations compliant work environments, and construction/carpentry theory.

CARP 1232
Principles of Carpentry I-B - Theory
(3 Lec; 3 Cr)
This course consists of learning the different methods of installation and finishing of drywall, interior/exterior finishing, window and door installation, trim, and siding.
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 carpentry.
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 sheetrock, installing doors and windows, installing insulation, trim work, siding, and stair building.
Prerequisite: CARP 1241
CARP 1250
Green Building and Sustainable Design
(3 Lec; 3 Cr)
This course will be an introduction to the philosophy of green building, sustainable design, and conserving energy. Students will learn design techniques for building durable, energy efficient homes. This course has a “green” emphasis, which will examine the use of resources such as energy, water, and materials in building design, as well as decreasing waste in the construction process.

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 are 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 students to residential and commercial scaffolding and ladders. Students will be able to erect and use safely scaffolding and ladders. It will also enable 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 moldings, 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
(3 Lec; 3 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.
Prerequisites: 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).
* Only for Chemical Dependency Specialist Program students who are seeking Minnesota Board of Public Behavioral Health and Therapy permits and licensure for chemical dependency. The internship is only needed for licensure. Internship hours can be split between the community college and the four-year transfer institutions. In some cases an individual can obtain a temporary permit to practice in the state with a two year degree, but will need a four-year degree for full licensure.
Prerequisite: Advanced standing in Chemical Dependency option program with instructors consent.
Drug Use and Abuse HLTH 1465 or HSER 1465, Psychology of Addiction CDEP 1255, Chemical Dependency Theories CDEP 1261, and enrolled in CDEP 2262 or CDEP 2263, College level reading, college level writing

CDEP 2262
Chemical Dependency Assessment
(3 Lec; 3 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 or HSER 1465, college level reading and writing
CDEP 2263
Treatment Procedures
(3 Lec; 3 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, 1261, 2262, HLTH or HSER 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 majors, various allied health field majors, and as a preparation for CHEM 1522.
Prerequisite: CPT Score or grade of “C” or better in 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. Emphasis is on functional groups, nomenclature, reactions, and applications.
Prerequisite: CHEM 1511 or CHEM 1522 (or previous courses CHEM 101 or CHEM 111 and CHEM 112)

CHEM 1522
General Chemistry I
(3 Lec, 1 Lab; 4 Cr)
Goal 3
This course will cover ionic and molecular compounds, stoichiometry, aqueous reactions, thermochemistry, electronic structure of atoms, period trends, molecular geometry, and physical properties of gases.
Prerequisite: CPT score or grade of “C” or better in MATH 0095
CHEM 1523  
**General Chemistry II**  
(3 Lec, 1 Lab; 4 Cr)  
Goal 3  
This course will cover intermolecular forces, structures of solids, properties of solutions, chemical kinetics, chemical equilibrium, aqueous equilibria, and chemistry as it relates to the environment, chemical thermodynamics, and electrochemistry.  
**Prerequisite:** CHEM 1522

CHEM 2315  
**Science Internship**  
(1-4 Cr)  
This course offers the student an opportunity to apply the principles and skills learned in the classroom to gain practical experience in an on-the-job training opportunity. Students will need to apply for positions through the instructor and most job opportunities will be during the summer.  
**Prerequisite:** BIOL 1551, CHEM 1522, college level reading, college algebra or higher.

CHEM 2435  
**Special Topics in Chemistry**  
(1-3 Cr)  
This course is a study of special topics pertaining to student interest in chemistry and its relationship to allied health, anthropology, biochemistry, biology, biotechnology, criminology, and environmental science fields. Topics of interest may include one or more issues on healthcare, environment, biotechnology, criminology, pharmacology or industrial manufacturing.  
**Prerequisite:** CHEM 1511, BIOL 1551, or instructor’s consent, ENGL 1511, MATH 0093

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)  
This course is 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 1400
Computer Essentials
(2 Lec; 2 Cr)
This is a beginning level course in computer essentials which teaches skills necessary to function in a work environment. Computer hardware, Windows Operating System, Internet access and electronic mail, Word Processing, Spreadsheets, Database, File Management and Presentation Graphics software will be included.

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 1468
COBOL Programming
(3 Lec, 1 Lab; 4 Cr)
This course introduces COBOL program structure and statements, logical and arithmetic operators, elements of structured programming, transfer of control, arrays, sub-program structures, and input/output of external files.
Prerequisite: At least one programming class and consent of instructor

CSCI 1469
Introduction to Assembly Language Programming
(3 Lec; 3 Cr)
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-document-folder management in Explorer, customizing a computer, advanced document management and communication with other computers.
CSCI 1491
Visual Basic I
(2 Lec, 1 Lab; 3 Cr)
Visual Basic I introduces computer programming in the windows, graphical user interface (GUI),
event driven Visual Basic programming language. Students will learn the programming concepts
used to design, build and maintain their own on-line, windows programs.
Prerequisite: One previous programming language or consent of instructor

CSCI 1496
Internet Programming Languages
(3 Lec; 3 Cr)
This course is a survey of web programming languages including JavaScript, Java, HTML, CGI, and
PERL. Basic programming techniques and design issues will be covered. Students will learn
features and best applications for various languages.
Prerequisite: CSCI 1486 and CSCI 1487, or consent of instructor

CSCI 2455
Systems Analysis & Design
(3 Lec; 3 Cr)
This course is a survey of methods for investigating and designing computer information systems.
Students will develop application programs from scenarios presented by the instructor or gathered
by the student. Topics include the discussion, analysis, and actual design of a system using a five
phase approach consisting of initiation, detailed investigation, system design, system development
and implementation, and evaluation.
Prerequisite: Two programming courses or consent of instructor

CSCI 2461
Java Programming
(4 Lec; 4 Cr)
This course provides an introductory overview of the 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
(2 Lec, 1 Lab; 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 2481
Computer Science I
(4 Lec; 4 Cr)
This course introduces the advances of object-oriented programming (OOP) using C++. It compares procedural programming concepts with OOP. Students learn to use an integrated editor/compiler. Students also learn about control structure, data structures, and advanced topics such as class templates and recursion.
Prerequisite: CSCI 2471, MATH 1511, College Algebra

CSCI 2482
Computer Science II
(4 Lec; 4 Cr)
This course is a continuation of C++, object oriented design, object oriented programming overloading, template classes, inheritance, recursion, exception handling and software reuse. A final project using the concepts that have been covered will be a course requirement.
Prerequisite: CSCI 2481

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

DRAFTING

DRFT 1355
Technical Drafting
(1 Lec, 2 Lab; 3 Cr)
This course introduces the fundamentals of drafting; careers in drafting, instrument drafting, technical sketching and lettering, basic and advanced geometry, orthographic projection, dimensioning rules, sectional views and pictorial drawing. Techniques used include sketching, hand/machine drafting and computer aided drafting.
Prerequisite: College Level reading, composition, and mathematics.

DRFT 1356
Introduction to Computer-Aided Drafting
(1 Lec, 1 Lab; 2 Cr)
Students enrolled in this course need no previous drafting experience. The course is designed for those seeking an introduction to the diverse and complex field of computer-aided drafting (CAD), but limited to affordable hardware and software.
Prerequisite: College-level reading, composition and mathematics.
DRFT 2246  
Three Dimensional CAD for the Trades  
(3 Lec; 3 Cr)  
This course covers the basic areas of Computer Aided Design using Solid Works three-dimensional design software. Students will design and draw components and assemblies of mechanical and industrial products in animation. Students will also use this program to create detailed blueprints of the components and assemblies designed in this class. Three dimensional CAD design is becoming widely used in the industrial trades. Prerequisite: Concurrent enrollment in WELD 2242 or consent of instructor.

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- CPT score of 78 or higher

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: Knowledgeable in elementary algebra and CPT score in reading of 78 or higher

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: Knowledgeable in elementary algebra, CPT score in reading of 78 or higher

ECON 1565  
Introduction to the World Economy  
(3 Lec; 3 Cr)  
Goals 5 & 8  
This course introduces the demographic, historical, economic, legal, and other social factors that continue to contribute to the World’s increasingly connected economy. Trade in goods and services as well as trade in knowledge and capital are examined. International differences and the global money system are highlighted in international investment decision making. Case studies that describe best management practices for successful trade in the world economy are reviewed. Prerequisite: College level reading
ECON 1566
Ecological Economics
(3 Lec; 3 Cr)
This course is a survey of the natural, social, and citizen-action context for environmental awareness. Issues affecting soils, forests, grasslands, fresh water, oceans, wildlife, mineral resources, and urbanization are considered. Economic approaches for improving environmental decision-making are emphasized.

EDUCATION

EDUC 1415
Education in Modern Society
(3 Lec; 3 Cr)
This course is a comprehensive introduction to education. Students will gain an overview of the past, present, and the future of education, the teaching profession, the diverse learner, educational philosophies, educational policy, and curriculum design. Prerequisite: College level in reading and composition.

EDUC 1416
Computers & Technology in Education
(2 Lec; 2 Cr)
This course provides a hands-on introduction to utilizing computers and technology to enhance teaching and learning in an educational setting. In addition, it addresses ways in which technology may be used as an effective tool to differentiate learning in order to meet the needs of all learners. A brief exposure to assistive and adaptive technologies will also be introduced.

EDUC 1425
Introduction to Elementary Education
(3 Lec; 3 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. Prerequisite: College level in reading and composition.

EDUC 1435
Methods of Teaching Early Childhood Literature
(3 Lec; 3 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. Prerequisite: College level reading and composition.
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.  
Prerequisite: College level reading and composition.

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.  
Prerequisite: College level reading and composition, EDUC 1515

EDUC 2414  
Infant & Toddler Strategies  
(3 Lec; 3 Cr)  
This course provides a framework for building on participant’s knowledge and skills in the area of early childhood special education. The content will focus specifically on infant/toddler development and how to work effectively with children who have disabilities or are at risk for disabilities. Parent-professional partnerships, interagency and interdisciplinary planning as well as the development of a comprehensive individual family service plan will be addressed.  
Prerequisite: TAIA 1202, college level reading

EDUC 2415  
Cognitive Development and Children’s Mental Health  
(3 Lec; 3 Cr)  
This course will explore the complexities of early brain development and address how early experiences are paramount in helping to shape optimal emotional development. In addition, this course will provide an overview of infant mental health and discuss the negative effects of trauma and stress during early development.

EDUC 2417  
Effective Classroom Teachers  
(4 Lec; 4 Cr)  
This pragmatic course will provide classroom instructors with essential knowledge and skills in order to further their professional development as well as meet the state of Minnesota Clock Hour Requirements for K-12 licensed teachers in the areas of: positive behavioral intervention strategies, further reading preparation, recognizing key warning signs of early-onset mental illnesses, adapting the learning environment to meet the needs of diverse learners, and integrating technology in order to increase student engagement.  
Prerequisite: College level reading and composition
EDUC 2514  
Preschool Strategies  
(3 Lec; 3 Cr)  
This course provides a framework for building on participant's knowledge and skills in the area of early childhood special education. The content will focus specifically on children with special needs from 3-6 years of age. Participants will be required to plan and implement individual as well as group/inclusionary programming. Effective developmentally appropriate teaching strategies in all of the domains will be presented.  
Prerequisite: TAIA 1202, college level reading

EDUC 2516  
Early Childhood Creative Expressions  
(3 Lec; 3 Cr)  
This course provides students with hand-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.  
Prerequisite: College level reading and composition, EDUC 1515

ELECTRICAL CONTROLS AND MAINTENANCE

ECM 1233  
Introduction to Solid State Electronics  
(1 Lec, 3 Lab; 4 Cr)  
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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 materials, PN junction devices, discrete and integrated semiconductor applications, schematic symbols, device testing, and the mathematical and practical analysis of circuits from a troubleshooting perspective. Lab safety and the safe and proper use of tools and test equipment are emphasized.

ECM 1243  
Introduction to Digital Electronics  
(1 Lec, 2 Lab; 3 Cr)  
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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 simplification, integrated logic circuits, schematic symbols, device testing, and the mathematical and practical analysis of circuits from a troubleshooting perspective. Lab safety and the safe and proper use of tools and test equipment are emphasized.
ECM 1244
Industrial Pneumatics
(2 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course covers the general fundamentals of machine control utilizing pneumatics and electro-pneumatics. Concentrates on pneumatic systems, control devices and actuators related to machine control with practical applications involving robotic work cells, pick and place robots, parts handlers, motion control and interfacing of air and electrical circuits.

ECM 1251
Programmable Logic Controllers
(1 Lec, 2 Lab; 3 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course is an introductory class covering the installation, operation, and programming of industrial programmable logic controllers (PLCs). Lecture reviews a variety of PLC types/manufacturers and the components of a PLC system. Labs provide hands-on activities demonstrating the practical use of PLCs in industrial control.
Prerequisite: ECM 1253, ECM 1243

ECM 1260
Electrical Safety
(1 Lec; 1 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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.

ECM 1265
National Electrical Code
(2 Lec; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course is an introduction to the National Electrical Code (NEC). The course covers the layout of the code book, definitions of terminology used in the NEC, and a review of code sections related to industrial wiring. The course provides practice in locating and applying articles from the NEC to solve specific electrical design problems and/or calculation parameters needed for the sizing and selection of equipment and material.
ECM 1266
Industrial Motor Control
(2 Lec, 4 Lab; 6 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work but also includes Web-based learning activities to complement face-to-face work. This course covers the design, wiring, and operation of AC motor control circuits from the power distribution system, or source, to the final control circuit and motor. The student will receive instruction in the installation, troubleshooting, and maintenance of equipment associated with motors and motor controls. Topics include three phase power, transformers, control devices, motor starters and motors. Students should possess knowledge of basic electricity and electronic fundamentals.
Prerequisite: ECM 1253, ECM 1243

ECM 1275
Introduction to Process Control
(1 Lec, 1 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course is 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.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 1276
Electrical/Mechanical Tools, Equipment, and Systems
(2 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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 usage of specialized tools and test equipment used in electrical work. The student will gain a working knowledge of the specifications, application, and standards related to materials used in electrical distribution. The course examines the mechanical applications and procedures used in the installation of electrical equipment and systems.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 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.
ECM 2235
Industrial Data Communications
(1 Lec, 3 Lab; 4 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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.

ECM 2245
Industrial PC Communications
(1 Lec, 2 Lab; 3 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course 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.

ECM 2252
Advanced Programmable Logic Controllers
(1 Lec, 3 Lab; 4 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course is an advanced PLC course designed for students who have previous PLC programming experience or have completed the ECM 1251 Programmable Logic Controls course. The course covers advanced programming instructions such as sequencers, analog I/O, and PID control. The course develops a student’s understanding of the PLC’s file structure and organization of user programs. In addition, the course introduces the student to programming languages, communication protocols, terminology, and standards set by the IEC (International Electrotechnical Commission) Standard IEC1131-3. Lab exercises provide hands-on activities demonstrating the practical application of plant wide control systems.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 2264
Automation Components & Equipment
(1 Lec, 1 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course covers the discrete devices and integrated circuit components used in modern automated control systems. Topics include the components and design of systems for power distribution and control interfacing. The course details the operation, configuration, and installation of devices and equipment used for position, motion and speed control of motor drives. Course lab assignments provide hands’ experience in designing, wiring, and configuring system components into an integrated control system. Additional topics covered will include print reading, hazardous location wiring, and power quality analysis.
ECM 2266
Temperature, Strain, and Analytical Instruments
(1 Lec, 2 Lab; 3 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course is designed to encompass three independent areas of instrumentation that utilize 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.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 2267
Pressure, Flow, and Level Instruments
(1 Lec, 2 Lab; 3 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. 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.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 2268
Automation Lab
(2 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course builds the principles and knowledge acquired in previous ECM course work and curriculum with an emphasis on actual application in the construction of an automated process or work cell. Students are asked to put forward a project idea and complete the tasks involved in designing, assembling, and installing electrical/mechanical components into a completely automated system. The projects require written descriptions and documentation including equipment lists, a "tag name" data base, control programs and electrical/mechanical prints. The design, assembly, and programming are required to simulate real world applications used in automated industrial manufacturing and process control. All projects are group assignments that require a teamwork approach.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295
ECM 2276
Automated Industrial Control
(5 Lab; 5 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course covers advanced automated control for medium and large industrial manufacturing with an emphasis on concepts related to analog (process) control. Included in this project based course will be topics related to pre-engineering and design, mechanical installation/wiring, digital and analog control loops within the PLC, SCADA/HMI development and implementation as well as the integration into the project of DeviceNet and Foundation Fieldbus advanced field level network devices.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 2277
Controllers and Control Loops
(1 Lec, 1 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hand-on lab work which also includes Web-based learning activities to complement face-to-face work. 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.
Prerequisite: ECM 1233, 1243, 1244, 1253, and 1295

ECM 2295
Computer Aided Design
(2 Lab; 2 Cr)
The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course covers the fundamentals of computer-aided design. 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)
(4.5 Lec, 2.5 Lab; 7 Cr)
The Emergency Medical Technician course educates 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/or ambulance time, skill test competencies, 70% passing on the written final and on all sections of the National Registry Exam, and fee payments associated with the NREMT Exam.
Prerequisite: Age 18 when testing, Ability to lift and carry (with a partner) up to 225 lb. people. Communications skills, and the ability to apply equipment used in the field. Anyone with a felony record needs to have clearance to test and be certified. A current CPR card: AHA BLS Healthcare Provider.

EMSV 1658
Emergency Medical Responder (EMR)
(2 Lec; 1 Lab; 3 Cr)
The Emergency Medical Responder course educates participants to be a part of the nation's Emergency Medical System. The EMR course is designed to train volunteers and professionals to deal with trauma and medical emergencies in the field of emergency medicine. Emphasis includes assessing the scene and preventing further harm, performing patient assessments, following protocols for equipment use, and working within the established EMS system to access medical care. EMR Certification through the EMSRB requires the ability to lift and carry (with a partner) up to 225 lb., skill test competencies and 70% passing on the written final.
Prerequisite: Age 16 when testing. Anyone with a felony record needs to have clearance to test and be certified through the EMSRB. CPR Certification is included within the course: AHA BLS Healthcare Provider.

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.
Prerequisite: Current EMT Certification (within 4 years) and current CPR card (Healthcare 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.
Prerequisite: ENGL or READ 0092 and current First Responder Certification

ENGINEERING

ENGR 1010
Introduction to Engineering
(2 Lec, 1 Lab; 3 Cr)
This course will provide students with an understanding of the different fields of engineering (Civil, Mechanical, Electrical, etc.) and professionalism in engineering (ethics, moral, and teamwork). Students will learn about an engineering design process from their work on project(s).

ENGR 1345
Fundamentals of Solid Modeling
(1 Lec, 2 Lab; 3 Cr)
This course introduces the fundamentals of graphical communication for design and manufacturing with modern solids modeling software. Topics include basic 3D geometry construction, drawings, assemblies, parametric modeling, and geometric dimensioning and tolerance.

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.
Prerequisite: 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 instructors 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, and analysis of structures, centroids, moments of inertia, friction, and methods of virtual work.
Prerequisite: 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.
Prerequisite: 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.
Prerequisite: PHYS 1572, PHYS 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

ENGLISH

ENGL 0081
Efficient Reading I
(3 Lec; 3 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 essential to intelligent reading of college level material including literal and inferential comprehension, making connections, understanding figurative language, and evaluating ideas.

ENGL 0082
Efficient Reading II
(3 Lec; 3 Cr)
Efficient Reading II is designated to improve college students’ reading and thinking skills through instruction and extensive guided practice with academic discipline-related readings. The course is structured around various academic disciplines. The reading assignments are selected from college textbooks as well as from periodicals and popular magazines, newspapers, and internet sources.
Prerequisite: ENGL 0081 (READ 0081)

ENGL 0091
Exploring Academic Writing
(3 Lec; 3 Cr)
Students in this course will explore the structure of various types of academic writing, such as the report, analysis, exam response, and others, in preparation for their own responses to academic writing assignments. Skills of this course include recognizing the point, purpose, and structure of various types of academic writing and evaluating the effectiveness of evidence used to support the thesis. In addition, students will be analyzing assignments and planning their own well-organized, effectively-supported responses to a variety of academic subject areas. Finally, students will be developing their proofreading skills for clarity and correctness.
ENGL 0092
Application of Academic Writing
(3 Lec; 3 Cr)
Students in this course will develop skills in interpreting academic writing assignments, creating thesis statements that match those assignments, and applying their knowledge of various modes of development to support thesis statements. To that end, students will be planning and drafting their own well-organized, effectively-supported responses to a variety of academic subject areas as well as developing their proofreading skills.
Prerequisite: Placement by Accuplacer Score

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 or a grade of “C” or better in ENGL 0092 (or previous course ENGL 096)
College –level reading – CPT scored of 78 or higher, Sentence skills – CPT score of 86 or higher

ENGL 1512
College Writing II
(4 Lec; 4 Cr)
Goal 1
Students in this advanced freshman-level composition course will focus on the basic principles of argumentation and the ability to apply those principles in written argument. Basic concepts of reasoning, critical thinking, and problem solving are introduced and included in a variety of argument papers. In addition, students will learn to conduct thorough and meaningful research and to present the results of such research in a formal research paper that employs a standard documentation style in the presentation of sources.
Prerequisite: College level Reading, ENGL 1511 (or previous course ENGL 111)

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 previous course ENGL 111), CPT score of 72+, or “C” or better in ENGL or READ 0082 (or previous course READ 098)
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 72 or higher, or grade of "C" or better in ENGL or READ 0082 (or previous course READ 098). Completion of ENGL 1511 (or previous course ENGL 111) is helpful.

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 72 or higher, or "C" or better in ENGL or READ 0082 (or previous course READ 098)

ENGL 1577  
Mythology  
(3 Lec; 3 Cr)  
Goal 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 72 or higher, or "C" or better in ENGL or READ 0082 (or previous course READ 098)
ENGL 1579
World Literature
(3 Lec; 3 Cr)
Goal 6 & 8
This course provides a survey of literature from such continents as 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: College-level reading, 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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098)

ENGL 2515
Native American Literature
(3 Lec; 3 Cr)
Goal 6 & 10
This course uses creation stories, historic speeches and documents, poetry, fiction, and non-fiction 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. Prerequisite: College Writing I recommended, college-level reading

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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098)
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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098), Note: ENGL 2535 is NOT a prerequisite for this course.

ENGL 2537
Survey of American Literature I
(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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098), completion of ENGL 1511 (or previous course ENGL 111) is helpful

ENGL 2538
Survey of American Literature II
(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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098), completion of ENGL 1511 (or previous course ENGL 111) 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 72 or higher, or “C” or better in ENGL or READ 0082 (or previous course READ 098)
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 McKibbin. Various local writers – Olson, Cook, Kerfoot, and Bly will also be covered.  
Prerequisite: CPT score of 72 or higher, or “C” in ENGL or READ 0082 (or previous course READ 098), completion of ENGL 1511 (or previous course ENGL 111) 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 ENGL or READ 0082.

ENGL 2578  
**Literature by Women**  
(3 Lec; 3 Cr)  
Goal 6 & 7  
The course examines literature by and about women, and more importantly, explores how and why women write. Students will study the process of writing from a woman’s perspective and experiences - 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 78 or higher, or grad of C or better in ENGL or READ 0082 (or previous course READ 098).
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.

GECL 1415
Freshman Year Experience
(1 Lec; 1 Cr)
This course is designed to assist first year students to identify educational goals, career paths, and transfer options. In addition, the course will address social concerns that affect the first year student with the goal of promoting student success.
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.

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 expectations. Students will also learn how to create job application correspondence and prepare for and participate in job interview questions.

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.

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 the following: 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
GEDM 1165  
Technical Math  
(2 Lec; 2 Cr)  
This course includes a problem solving approach to technical applications using geometric and algebraic methods.

GEDM 1175  
Applied Technical Math  
(2 Lec; 2 Cr)  
This course involves an integrated approach to higher order problem solving strategies involving algebra, geometry, and trigonometry.  
Prerequisite: Placement by CPT score

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: CPT score in reading of 78 or higher

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: CPT score in reading of 78 or higher

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 issues.  
Prerequisite: CPT score in reading of 78 or higher

GEOG 1558  
World Regional Geography  
(3 Lec; 3 Cr)  
Goals 5 & 7  
This course offers a geographical study of global regions with emphasis on internal spatial patterns and interrelations between regions.
GEOG 2455  
**Fundamentals of Geographic Information Systems**  
(3 Lec; 3 Cr)  
This course provides a broad introduction to cartography and Geographic Information Systems with emphases on both theory and practice. In addition it explores fundamental principles of numerical data entry, digitizing, data manipulation and analysis, and interpretation of spatially referenced data. The course includes cartographic basics such as mapping, coordinate systems, projections and remote sensing. Students are introduced to the skills necessary to run a vector-based GIS.  
Prerequisite: Introduction to Computers and one of Physical Geography, Human Geography, Conservation of Natural Resources, or Environmental Science, High School Algebra or CPT placement in a higher algebra or above

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 landforms: study of minerals and rocks, volcanic activity, earthquakes, continental drift, and the theory of plate tectonics with an emphasis on the geology of Minnesota.  
Prerequisite: Reading intensive

GRAPHIC DESIGN MEDIA

GRAP 1226  
**Introduction to Media**  
(1 Lec, 1 Lab; 2 Cr)  
This course provides students an overview of the Graphic/Design/Media industry. Through this course, students will discover and explore the job opportunities in the graphic communications industry. In addition, students will be introduced to all types of media and will gain a greater understanding of the role of graphic/media plays in society.

GRAP 1227  
**Layout and Imposition**  
(1 Lec, 2 Lab; 3 Cr)  
This course will allow students to work on projects that meet their needs and special interests in developing basic layouts. Students will become familiar with basic layout techniques and learn the importance of pagination and imposition in the print and design industry.

GRAP 1228  
**Color Exploration**  
(1 Lec, 2 Lab; 3 Cr)  
In this course students will study basic color theory/and how colors interact with one another. Students will look at the mediums of digital photography, video and print, and how color affects differently each one of these outputs. Students will work with various outputs’ devices and gain a better understanding of color and the value it has on products in our industry.
GRAP 1235
Imaging
(1 Lec, 2 Lab; 3 Cr)
Students in this course will be introduced to imaging paper, and other substrates, offset, and digital printing methods, from an output-ready file. As students develop an understanding of these processes, they will also master concepts of imaging systems, process control, densitometry, ink, toners, and substrates. Finally, students will be creating reproductions using both the two-color and four-color process.

GRAP 1238
Video Editing and Lighting
(2 Lec, 2 Lab; 4 Cr)
Students in this course will develop skills in the production of digital videos, from pre-production through production, including storyboards and lighting set up. Through lectures lessons and hands on experiences, students will be initiated into the world of video editing.

GRAP 1245
Estimating for Media
(2 Lec, 2 Cr)
Students in this course will explore the fundamentals of estimating a job in the printing industry. Students will learn the importance of understanding the cost of any design or media project, including graphic design, video and production process.
Course Prerequisites: high school GED, Reading 54, Math 34

GRAP 1248
Video Production
(1 Lec, 2 Lab; 3 Cr)
The focus of this course is video production. Throughout the course, students will use video production hardware and software to explore how a production comes together. Working independently and with others, students will produce their own videos as they master skills in identifying and resolving quality issues before a video can go live.
Prerequisite: CPT Scores in Reading and Mathematics

GRAP 1256
Quality Control in Media
(1 Lec, 1 Lab; 2 Cr)
Students in this course will explore the importance of team building and working together in groups to solve quality control issues in media. In addition, students will be introduced to quality control procedures in a small/medium or large company and important concepts such as Deming, Lean Manufacturing, and ISO 9000 principles.

GRAP 1257
Motion Graphics
(1 Lec, 2 Lab; 3 Cr)
In this course students will learn the fundamentals of motion graphics and quickly move into compositing and keying. The course will also cover animation, motion graphic design, visual effects, and be introduced to the world of 3D.
GRAP 1266
Visual Communications
(1 Lab; 1 Cr)
This uniquely structured course will prepare all students for entry into the Graphic Design Media program. A general overview of the graphics field will be provided. Throughout the semester, students will be introduced to basic computer operation, photography, and editing software for both photography and video. Students will become familiar with these techniques so as to produce a project that integrates their newly developed skills. This course is open to Graphic Design Media students and non-majors.

GRAP 1268
Photography
(1 Lec, 1 Lab; 2 Cr)
This hands-on course is designed to familiarize students with the industry standard Digital Single Lens Reflex (DSLR) camera. Coursework will cover operating automatic and manual-adjustment of the DSLR camera functions, such as controlling shutter speed, depth of field, ISO, and white balance through various indoor, outdoor, and natural lighting conditions. The key to this course will be gaining an understanding of the DSLR’s controls and adjustments. Students will be able to use their images to enhance their 2D and 3D products.

GRAP 1278
Leadership and Emerging Trends in Graphics
(2 Lec; 2 Cr)
In this course the student will gain a deeper understanding of the ever-changing world of graphics. The pace of change in this business is continually increasing. This course will focus on the changing environment of the graphics business and provide the student some strategies for ongoing skill development. The student will complete a project for the graphics program or the college.

GRAP 2245
Mobile App Development and Publishing
(2 Lec, 2 Lab; 4 Cr)
This course is an exploration of Adobe InDesign as an interactive software platform for producing websites, designing interactive forms and creating publications for the iPad and other tablet devices. Students will harness InDesign’s capabilities for designing complex layouts with images and illustration and typography, then redefine those layouts as websites. Students learn to export an InDesign layout and upload it to a web hosting service. Students create an iPad publication from scratch, implement classic iPad effects like page rotation, scrolling text, and interactive images, and then publish the document as an app on Apple’s App Store.

GRAP 2252
Design & Layout with InDesign
(1 Lec, 2 Lab; 3 Cr)
This course covers design and layout principles using Adobe InDesign: all palettes; how to flow and format text; import and manipulate text and graphics; illustrate objects; apply and set color, and how to print multiple page signatures and documents used in electronic publishing and variable data. Prerequisite: GRAP 2251, 2252, 2253, 2254, 2261, 2262, 2263, 2264, 2271 and 2272
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.
Prerequisite: GRAP 2251, 2252

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, corporation identity, color, and all measurement parameters for folding, die-cutting and printing size per cut sheet stock.
Prerequisite: GRAP 2251, 2252, 2253

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 students 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. Students 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.
Prerequisite: GRAP 2251, 2252, 2253, 2254

GRAP 2264
Advanced Design and Layout
(1 Lec, 2 Lab; 3 Cr)
This course covers the advanced layout and design applications through the powerful application of Adobe InDesign. This course will cover the multiple page documents and the layout of newsletters, magazines, and books using color separations and direct to plate technology.
Prerequisite: GRAP 2251, 2252, 2253, 2254, 2261, 2262 and 2263
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.
Prerequisite: GRAP 2251, 2252, 2253, 2254, 2261, 2262, 2263, and 2264

GRAP 2272
Dreamweaver & Web Page Design
(1 Lec, 2 Lab; 3 Cr)
This course covers the use of multimedia software used to create a website and web pages complete with graphics, photos, videos and animations. Student will utilize the powerful tools of Dreamweaver & Image Ready software.
Prerequisite: GRAP 2251, 2252, 2253, 2254, 2261, 2262, 2263, 2264, and 2271

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 (SOE) Supervised Occupational Experience at the site selected in conjunction with the student, the employer, and the college.
Prerequisite: GRAP 2251, 2252, 2253, 2254, 2261, 2262, 2263, 2264, 2271, 2272

GRAP 2285
Animate
(1 Lec, 1 Lab; 2 Cr)
This course will utilize Animation software to create projects, concise instructions, and complete use of basic and advanced animation software. Students will learn the many skills to create interesting graphics – rich movies that include sound, animation and interactivity. In addition, you will learn how to publish your own Animated projects.

HEALTH

HLTH 1415
Treatment of Sports Injuries
(3 Lec; 3 Cr)
This course provides students with the basic principles of treating sports injuries 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, which 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 MTC)

HLTH 1458
Community CPR
(1 Lec; 1 Cr)
This course will review the “ABC's” 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
Introduction to Wellness
(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, cardio-vascular 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 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 manage aggressively 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 events, societies, happenings, etc., that have had a significant impact on what is broadly referred to as the Western World. The semester will cover the Paleolithic era until the 1500’s AD.  
Prerequisite: Reading - CPT score of at least 72 or letter grade of “C” or better in ENGL or READ 0082 (or previous course REAS 098)

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 1500’s AD until contemporary times in the Western world. This is designed as a continuation of History 1555, but is a separate course.  
Prerequisite: Reading - CPT score of at least 72, recommended score of 87 or letter grade of “C” or better in ENGL or READ 0082 (or previous course READ 098)

HIST 1565  
American History – to 1877  
(4 Lec; 4 Cr)  
Goals 5  
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 72; 87 recommended, or “C” or better in ENGL or READ 0082 (or previous course READ 098), 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 72; 87 recommended, or “C” or better in ENGL or READ 0082 (or previous course READ 098), writing intensive

HIST 1567
Native American History
(3 Lec; 3 Cr)
Goals 5 & 7
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.
Prerequisites: Reading - Minimum CPT score of 72 or a grade of C or better in READ 0092 (or previous course READ 095), Composition - Minimum CPT score of 49 or a grade of C or better in ENGL 0091 (or previous course ENGL 090)

HIST 1568
Minnesota History
(3 Lec; 3 Cr)
Goals 5 & 10
This course presents a survey of Minnesota’s historical development. The course focuses on the historic importance of Minnesota’s geography and environment, American Indian-white relations, the development of Minnesota’s rich political tradition, and the rise of Minnesota’s diverse society and economy.
Prerequisite: College-level reading

HIST 2555
The Holocaust
(3 Lec; 3 Cr)
The Holocaust will examine the many historical, social, religious, political, and economic factors that cumulatively resulted in the Holocaust
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. Specific rubrics are implemented to measure the student’s compatibility to the human services field. This course includes a 20-hour mini-internship, outside of class. A student must obtain a “C” or better to be officially admitted into the Human Services or Chemical Dependency Program.
Prerequisite: College level reading and writing

HSER 1232
Helping Process
(3 Lec; 3 Cr)
This course is presented as general helping skills which are useful in all professions and occupations whose task is to help people. It involves obtaining direct skills and knowledge in helping others 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. The primary focus is on interpersonal and planning skills which help people to be more effective as practitioners within the human services.
Prerequisite: HSER 1231, 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.
Prerequisite: HSER 1231, College level reading and writing

HSER 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 MRCTC)
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 his or her own hypothesis. Students will gain required knowledge and skills through lecture-discussion, structured experiential learning exercises and videotaping of “Pseudo” intervention situations.
Prerequisite: HSER 1231, HSER 1232, HSER 1233 (or previous courses HSER 106 and HSER 102), PSYC 2655 (or previous course PSYC 224), college-level reading and writing

HSER 2240
Human Services Internship
(2 or 4 Lab; 2 or 4 Cr)
This course encompasses fieldwork experience in a Human Service agency. The emphasis is an ongoing practical experience in using the techniques and knowledge gained in the classroom. The level of work progresses from the simple to the more complex and is under the direct supervision of agency professionals and the field coordinator. A weekly seminar to discuss the field experience is also required. A total of four credits is required. Four credits may be taken in one semester or two credits may be taken in each of two semesters.
Prerequisite: Advanced standing in Human Services or Human/Service Chemical Dependency option program with instructor’s consent, HSER 1231, HSER 1232, HSER 1233, college-level reading and writing

INDUSTRIAL MECHANICAL TECHNOLOGY

IMT 1231
Industrial Accident Prevention I
(1 Lec, 1 Cr)
The main purpose of this course is to introduce the student to industrial accident prevention (safety). The students will learn how to make safety a part of their daily life.

IMT 1232
Industrial Accident Prevention II
(1 Lec, 1 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.
Prerequisite: IMT 1231

IMT 1235
Basic Hydraulic Symbols & Components
(2 Lec; 2 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.
IMT 1237
Elements of Mechanics – Equipment Operation
(1 Lec, 1 Lab; 2 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. (This portion of the course is dependent upon equipment availability).

IMT 1238
Rigging
(1 Lec, 1 Lab; 2 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 the mechanics and learn some of the equipment repair procedures as in found in industry. (This portion of the course is dependent upon equipment availability).

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.

IMT 1242
Basic Blueprint Reading and Sketching II
(1 Lec, 1 Lab; 2 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: IMT1241

IMT 1245
Lubrication and Bearings
(1 Lec, 1 Lab; 2 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 he or she can expect from them, as well as proper mounting, operation, and inspection as is found in a variety of industries.
IMT 1247
Hydraulic Basics
(1 Lab, 1 Lec; 2 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.

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 to 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, 2 Lab; 3 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.
Prerequisite: IMT 1251

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, and learn the how and why of checking equipment before, during and after operating. The student will also learn about the set-up and maintenance of many of the drive components which are used in industry. The student will learn the math and blueprint reading and sketching to perform basic troubleshooting.

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.

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.
Prerequisite: IMT I (MTMX) courses or approved equivalent experience
IMT 2231
Safety and Equipment Maintenance I
(3 Lab; 3 Cr)
The main purpose of this course will be to identify and operate safely different types of lab equipment in a safe and proper manner.
Prerequisite: IMT 1231, IMT 1232

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.
Prerequisite: IMT 1231, IMT 1232, IMT 2231

IMT 2242
Advanced Blueprint Reading
(1 Lec, 2 Lab; 3 Cr)
This course will acquaint the student with advanced drawing of equipment and machinery from and as used in industry.
Prerequisite: IMT 1241, IMT 1242

IMT 2251
Advanced Maintenance Welding and Cutting
(1 Lec, 2 Lab; 3 Cr)
This course applies advanced skills in oxyfuel burning, welding, arc welding, and arc welding as used by maintenance person.
Prerequisite: IMT 1251, IMT 1252

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.
Prerequisite: IMT 1235, IMT 1247

IMT 2262
Pneumatic and Hydraulics Troubleshooting
(1 Lec, 2 Lab; 3 Cr)
This course is intended to provide the basis for the study course using models that are designed for “Hands On” learning with an actual working hydraulic system. The main purpose of this course will be to learn how to recognize the elements of a hydraulic 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, alignment and uses of conveyor systems.
Prerequisite: IMT 1256, IMT 1257

INDUSTRIAL TECHNOLOGY SAFETY

ITSF 1225
OSHA 30 Hour Construction
(2 Lec; 2 Cr)
An Authorized OSHA 30 Hour Construction course with a completion card issued by OTI (Outreach Technical Institute) Great Lakes located at the University of Cincinnati. This course is considered a supervisory level course that reviews OSHA standards under CFR 30 Part 1926 as well as general safety and health provisions in several areas of the construction industry. Upon completion, students are more knowledgeable about workplace hazards and their rights in the workplace. The issued card is a permanent lifetime card within Minnesota that is required by construction company supervisors working with state and federal contracts.

ITSF 1486
MSHA New Miner
(1 Lec; 1 Cr)
This course is a requirement for all newly hired mining employees. The content of this course is designed to familiarize the participants with the safety and health aspects of surface mining occupations.

ITSF 1487
MSHA Annual Refresher Training
(1 Lec; 1 Cr)
This course is designed to update and refresh the students 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 to be certified 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.
Prerequisite: ITSF 1486 or current MSHA Certificate

JOURNALISM

JOUR 1555
Introduction to Mass Communications
(3 Lec; 3 Cr)
Goals 5 & 9
This course provides 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
Studying in College
(3 Lec; 3 Cr)
This course offers strategies for successful learning and problem solving in college and beyond. Students consider how knowledge is constructed (how the brain works) and become aware of different levels of thinking and learning from recall evaluation. The course stresses how to determine one’s own optimal learning styles and to use them to learn more effectively. Topics such as test taking, note taking, time management, problem solving, and decision making will be studied in depth. The course emphasizes taking control of one’s own education and educational directions.

LSK 1456
Success in the Social Sciences
(3 Lec; 3 Cr)
This course is an introductory level bridge course with the intent of applying basic study skill strategies, such as SQ3R, to content area within the disciplines of social science. Basic vocabulary, concepts and theories will be discussed in each area.

LSK 2455
Tutor Training
(1 Lec; 1 Cr)
This course is designed to prepare students to tutor as part of the MRCTC tutoring program. Prerequisite: Successful completion of course(s) for which she/he 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 evaluations, 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
Principle 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 codebook 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 brick laying. 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 joints of stone and discussion of different ways stone can be laid are included in the course. The students will be able to select, split, and trim stone. The student will learn to lay and tool natural split, field, and cultured 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 0090
**Algebra through Data Use**
(3 Lec; 3 Cr)
This course is designed to develop algebra skills using data analysis. Students will be expected to develop an understanding of algebraic functions and formulas by analyzing data and reporting results using a spreadsheet.
Prerequisite: Placement by CPT score

MATH 0095
**Intermediate 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 0090

MATH 0096
**Advanced Algebra**
(4 Lec; 4 Cr)
This course is a review of exponents and radicals. It is the study of rational expressions and equations, quadratic equations and inequalities, graphing techniques and functions, exponential and logarithmic functions.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0095

MATH 1415
**Mathematics for Elementary School Teachers**
(4 Lec; 4 Cr)
This is a course designed to give pre-service elementary teachers the opportunity to develop a clear understanding of the mathematical concepts, procedures, and processes they will be called on to teach. The course will have a balance between what to teach (content and concepts), and how to teach (processes and communication). Each student will be required to present a math lesson to the class. The use of manipulatives will be demonstrated.
Prerequisite: Math 0093 (Beginning Algebra) or appropriate placement test score
MATH 1511
Foundations of Mathematics
(3 Lec; 3 Cr)
Goal 4
This course is designed to introduce fundamental math concepts such as sets and logic, develop geometric and quantitative skills and cover applications to probability and statistics.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0095

MATH 1512
Foundations of Mathematics II
(3 Lec; 3 Cr)
Goal 4
This is a continuation course of Foundations of Math I. This course includes the study of operations with integers and applications to solving equations, simple geometric figures and calculations of area, perimeter, and volume, consumer application problems, and statistics.
Prerequisite: MATH 1511 or consent of instructor

MATH 1521
College Algebra
(4 Lec; 4 Cr)
Goal 4
The 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, and conic sections.
Prerequisite: Placement by CPT score or a grade of “C” or higher in MATH 0096 (or previous course MATH 0094), or instructor’s consent.

MATH 1542
Calculus II
(4 Lec; 4 Cr)
This course is a continuation of the study of Calculus, including differentiation and integration of the Transcendental functions: logarithmic, exponential, inverse trigonometric, hyperbolic, and inverse hyperbolic. This course covers techniques of integration, infinite series, conic sections, parameterized curves and polar coordinates.
Prerequisite: MATH 1561
MATH 1545
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; Baye’s 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

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. Students will be introduced to vector notation and analysis and polar coordinates.
Prerequisite: MATH 0096

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 previous course MATH 117) 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.
Prerequisite: 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: logarithmic, exponential, inverse trigonometric, hyperbolic, and inverse hyperbolic. This course covers techniques of integration, infinite series, conic sections, parameterized curves, and polar coordinates.
Prerequisite: Grade of “C” or better in MATH 1561 (or previous MATH 122)

MATH 2543
Calculus III
Goal 4
(4 Lec; 4 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; vector analysis including line integrals, surface integrals, Green’s Theorem, Stokes’ Theorem, and Divergence Theorem. In addition, the student will study matrices and determinants and their use in solving systems of linear equations.
Prerequisite: MATH 1542 or 1562

MATH 2544
Differential Equations and Linear Algebra
(4 Lec; 4 Cr)
Goal 4
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 1542 or 1562

MATH 2563
Calculus III
Goal 4
(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; vector analysis including line integrals, surface integrals, Green’s Theorem, Stokes’ Theorem, and Divergence Theorem. In addition the student will 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)
Goal 4
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

MULTICULTURAL STUDIES

MCS 1555
Multicultural Studies
(3 Lec; 3 Cr)
This course provides in-depth studies of foreign countries. The countries studied vary each time the course is offered, so students may opt to take this course more than once. Course curriculum focuses not only on the historical and architectural background of world famous sites, but also covers the social, political, and cultural life of the people who live in the country being studied. This course includes an optional national / international tour that focuses on the history, architecture, language, fine arts, and social life of the countries being toured.

MCS 1556
Culture through Film
(3 Lec; 3 Cr)
This course 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).

MUSIC

MUSC 1315, 1325, 1335, 1345, 1355, 1365, 1375, 1385, 1415
(1 to 4 Cr)
Piano (1315), Brass (1325) Woodwind (1335), Beginning Piano (1337), Percussion (1345), Strings (1355), Voice (1365), Guitar/Banjo (1375), Accordion (1385), Organ (1415)
This course provides weekly half-hour private music lessons for students who are interested in studying voice or in studying an instrument. Specific courses include piano (1315), brass (1325), woodwind (1335), beginning piano (1337), percussion (1345), strings (1355), voice (1365), guitar/banjo (1375), accordion (1385), organ (1415). Students may repeat this course up to four semesters for credit.
MUSC 1336
(1 and up to 4 Cr)
This course features a small instrumental ensemble allowing students to explore literature and performance options for their particular instruments. Brass, woodwind, percussion, string, or modern music ensembles are organized according to the interests of students. This course is taken by permission of the instructor. Students may repeat this course up to four semesters for credit.

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 1900’s 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).
Prerequisite: Permission of instructor

MUSC 1525
World Music
(3 Lec; 3 Cr)
Goals 6 & 8
This course is 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 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 students interested in music and its inner workings, including the needs and requirements of music majors or minors and for elementary education majors. The basic concepts of rhythm, melody, harmony, and music reading are studied. Students are introduced to fundamental musical structures such as key signatures, intervals, scale and chord construction, elementary harmonic analysis, basic time signatures, form, terminology, elementary keyboard, and transposition. Students are introduced to basic rhythm instruments, keyboard, autoharp, and recorder.

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

NURSING

Nursing – Nursing Assistant

NUNA 1211
Introduction to Nursing
(1 Lec; 2 Lab; 3 Cr)
This course covers the introductory skills of nursing. The units of instruction include maintaining a safe and clean environment, communication, meeting basic human needs, providing personal care, activity and exercise, assisting with nutrition and elimination needs, and caring for clients with special equipment or procedures. The course teaches the student to be able to perform these skills in a long-term care or healthcare facility. Instruction is provided through lecture, video, and instructor demonstration. The students are given guided practice time in the lab then must give return demonstrations of the skills learned. The students will experience practical application of the skills learned by participating in a clinical experience at the end of the course.
NUNA1212
Introduction to Home Health Aide
(1 Lec; 1 Cr)
This course covers the introductory skills of nursing. The units of instruction include maintaining a safe and clean environment, communication, meeting basic human needs, providing personal care, activity and exercise, assisting with nutrition and elimination needs, and caring for clients with special equipment or procedures. The course teaches the student to be able to perform these skills in a home environment. Instruction is provided through lecture, video, and instructor demonstration. This is an elective add on course to the 3 credit Nursing assistant course. At completion of this course-added to the 3 credit course, the student will be eligible to take the combination NA/HHA certification exam.
Prerequisite: NUNA 1211

NUNA 1215
Introduction to Nursing
(2 Lec, 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, obtaining/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. The students will experience practical application of the skills learned by participating in client cares at the clinical site.

Practical Nursing

NURS 1227
Medical Terminology
(1 Lec; 1 Cr)
The course covers word analysis, spelling and usage of word roots, prefixes, suffixes, and abbreviations common to the medical profession. Emphasis is placed on information needed for nursing and on diagnostic terms and abbreviations.
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS); Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095

NURS 1230
Nursing Math, Medications, & Skills
(2 Lec; 4 Lab; 6 Cr)
This course covers the assimilation and application of nursing skills. It will include skills related to the prevention of infection, performance of a focused physical assessment (including vital signs, neuro checks, auscultation of heart, lung, and bowel sounds), skills related to elimination (including Foley catheter insertion, enema administration, ostomy cares), skills related to surgical care, postmortem care, nursing documentation, oxygenation (including tracheostomy care, oxygen application) and others. The legal/ethical responsibilities of the practical nurse are also covered. 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/purpose and how to use drug reference books. Instruction is given on dosage calculations, safe administration of medications (all routes including parenteral), and documentation.

Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS); Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095

**NURS 1231**
**Pharmacology**
(2 Lec; 2 Cr)
Included in this course is information on pharmacokinetics, pharmacodynamics, common adverse/side effects, and contraindications to drug use. Emphasis is placed on drug classifications and nursing care related to the safe administration of medications to patients across the life span.

Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS) NURS 1227, NURS 1230, NURS 1233, NURS 1234, NURS 1239; Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095

**NURS 1233**
**Mental Health Nursing**
(2 Lec; 2 Cr)
Mental Health Nursing focuses on the care of patients with psychiatric and behavioral disorders. Emphasis is placed on common psychiatric and behavioral disorders as well as promoting and maintaining the mental health of individuals.

Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS); Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095

**NURS 1234**
**Nursing Care of the Older Adult**
(3 Lec; 3 Cr)
Nursing Care of Older Adults introduces students to the care of geriatric patients with a focus on health promotion, society’s perception of the elderly and safety. Emphasis is on common health problems of the older adult in restorative and residential facilities as well as safety and end-of-life care. Application of pathophysiology, nutrition and pharmacology are applied to common diseases within each topic area.

Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS); Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095
NURS 1239
Clinical I
(3 Lab; 3 Cr)
Clinical I provides the student an opportunity to apply nursing judgment using the nursing process to implement safe, patient/relationship centered care in selected settings. The clinical student focuses on assessing and collecting data, implementing skills learned in the lab setting, documenting findings and reinforcing teaching plans for patients with common problems. The student develops communication and customer service skills working with individual patients, families, and team members.
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS); Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra Accuplacer Test score >=55 or MATH 0095

NURS 1240
Transition into Practice
(1 Lec; 1 Cr)
This course facilitates the transition of the student to the role of an LPN. Concepts related to career development options that enhance career mobility are reviewed. Standards of practice and the importance of practicing according to state regulations and statutes for the scope of practice for the LPN are examined.
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS) NURS 1227, NURS 1230, NURS 1233, NURS 1234, NURS 1239; Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra
Accuplacer Test score >=55 or MATH 0095

NURS 1241
Maternal/Child Health Nursing
(3 Lec; 3 Cr)
Maternal/Child Health Nursing provides an integrative approach to the care of the childbearing woman, newborns, and children. Prominence is placed on normal and high-risk pregnancies, normal growth and development, and common pediatric disorders.
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS) NURS 1227, NURS 1230, NURS 1233, NURS 1234, NURS 1239; Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra
Accuplacer Test score >=55 or MATH 0095

NURS 1243
Nursing Care of the Adult
(4 Lec; 4 Cr)
Nursing Care of the Adult focuses on the care of adults and older adult patients with common medical/surgical health problems. Emphasis is placed on physiological disorders that require management in an acute care facility. Application of pathophysiology, nutrition and pharmacology are applied to co-morbid diseases within each topic area.
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS) NURS 1227, NURS 1230, NURS 1233, NURS 1234, NURS 1239; Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra
Accuplacer Test score >=55 or MATH 0095
NURS 1249
Clinical II
(4 Lab; 4 Cr)
Clinical II provides the student an opportunity to apply nursing judgment to implement safe, patient/relationship centered care to patients across the lifespan. The clinical student reflects on the value of patient centered care, teamwork and collaboration, informatics, quality improvement, safety, managing care, and nursing judgment/evidence based care in his/her career as a LPN.
Prerequisite: Per program plan
Prerequisite: BIOL 1415 or BIOL 2551 and 2552, PSYC 2551, NUNA 1215 or Current MN CNA Registry, CPR (BLS) NURS 1227, NURS 1230, NURS 1233, NURS 1234, NURS 1239; Reading: Accuplacer score of >=78; Composition: ENGL 1511; Mathematics: Elementary Algebra
Accuplacer Test score >=55 or MATH 0095

NURS 1275
NCLEX Review
(2 Lec; 2 Cr)
The purpose of this course is to prepare nursing students for the practical nursing licensure exam. Test taking tips related to multiple choice testing and other testing styles are covered. Multiple areas of nursing are reviewed including: pharmacology, nutrition, medical/surgical nursing, mental health nursing, maternal and child health nursing. The review method will be through practice, exams, and group and individual work.
Prerequisite: As per program plan

PARAMEDIC

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.
Prerequisite: Current EMT-B license or certification and instructor approval

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, and communicate effectively with patients, will be able to establish and/or maintain a patient airway, oxygenate, and ventilate a patient, will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the trauma patient, and communicate the findings to others, 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 prehospital environment. It covers pharmacokinetics and pharmacodynamics of medications, administration routes, techniques and dosage calculations. Major categories of medications such as antiarrhythmic, analgesics, catecholamine, etc. will be introduced along with specific medications in each group. 
Prerequisite: EMTP 1120

EMTP 1235
Drug Dosage Calculations for the Paramedic
(2 Lec; 2 Cr)
This course addresses the need for emergency care providers to be able to learn the areas that pose consistent challenges to both students and practicing emergency healthcare providers. The following three areas are discussed and practiced throughout the course in order to meet the needs in the field of emergency medicine administration. Mathematics and fractions review, systems of measurement and drug dosage calculations.

EMTP 1246
Introduction to Prehospital Advanced Life
(1 Lab, 1 Cr)
This course will provide the student with an introduction to the role of the Advanced Life Support Provider, prehospital operations, and fundamental principles and skills involved in patient care. This will allow the student to observe and participate at a Basic Life Support level in giving prehospital patient care. This introduction allows students to experience and develop the psychomotor, cognitive and affective skills needed to become an entry level paramedic.
Prerequisite: MN EMT- B, AJA CPT Healthcare Provider, enrolled in EMTP 1120 or 1220.

EMTP 1256
Paramedic Clinical 1
(1 Lab)
This course provides the student a comprehensive hospital experience that provides the student an opportunity to apply didactic knowledge and obtain competence in skills learned in the classroom/lab setting while in a controlled clinical setting.

EMTP 1420
Paramedicine II
(3 Lec; 3 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 respiratory problems and/or cardiovascular disease.
Prerequisite: EMTP 1120, EMTP 1220; Corequisite: EMTP 1520
EMTP 1520
Paramedicine Skills II
(3 Lab; 3 Cr)
Skills covered include the basic and advanced skills required to manage properly respiratory and cardiac patients in the prehospital environment. These skills include, but are not limited to, respiratory assessment, cardiac assessment, defibrillation, cardioversion, medication administration, cardiac rhythm interpretation and 12 lead monitoring.
Prerequisite: EMTP 1120, EMTP 1220; Corequisite: EMTP 1420

EMTP 1650
Paramedic Clinical II
(4 Lab; 4 Cr)
This course provides a comprehensive hospital experience that allows the student to apply program skills and knowledge with actual patients in a controlled clinical setting. This course covers clinical areas but not limited to include medical, cardiac, surgical, intensive care units, emergency department, and telemetry. The student will be exposed to areas such as respiratory, PAR, anesthesia, which vary year to year.
Prerequisite: EMTP 1120, 1220, 1225, 1235, 1246

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.
Prerequisite: EMTP 1120, 1220, 1225, 1420, 1520

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 gastroenterological 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.
Prerequisite: 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.
Prerequisite: 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 prehospital environment.
Prerequisite: 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.
Prerequisite: 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
ITLS International Trauma Life
(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.
Prerequisite: 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.
Prerequisite: 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.
Prerequisite: 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
(1 Lec; 1 Cr)
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.
Prerequisite: 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 2450
Paramedic Clinical III
(6 Lab; 6 Cr)
This course is a comprehensive hospital experience that allows the student to apply skills and knowledge gained in a controlled clinical setting. This course covers clinical areas to include (but may not be limited to) medical, cardiac, surgical, and intensive care units, emergency department, and telemetry. This course will include clinical rotations through labor and delivery, pediatrics, geriatrics, and other areas. The students will be exposed to areas such as respiratory, PAR, anesthesia, which vary year to year.
Prerequisite: EMTP 1120, 1220, 1225, 1236, 1246, 1650

EMTP 2600
Paramedic Internship
(6 Lab; 6 Cr)
This course covers the application of advanced level skills and knowledge in the evaluation and care of the prehospital 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 1556
World Religions
(3 Lec; 3 Cr)
Goals 6 & 8
This course is designed to introduce students to the major religions of the world. In the first unit of the course, students will examine definitions and assumptions relevant to the study of religion and primal religions. The second unit will focus on the major religions of the east: Hinduism, Buddhism, Confucianism, and Taoism. The third unit will discuss the Abrahamic religions of the western world: Judaism, Christianity, and Islam.

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 & 9
This course is an introduction to philosophical inquiry. The student will gain an introduction to the major ideas, arguments, and philosophers in various categories of philosophical thinking, including: epistemology, ontology, ethics, logic, religion, political and social philosophy, and aesthetics. 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 our 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.

PHIL 2552
Ethics
(3 Lec; 3 Cr)
Goals 6 & 9
This course expands student’s knowledge of the human condition/culture in relation to choosing good and evil in human behavior, ideas and values. This process involves reading selected articles and engaging in critical analysis and interpretation of the articles. There will be guest speakers on specific ethical concerns (medical, legal, business, education). Students are required to articulate responses in verbal and written work. Prerequisites: PHIL 1575, ENGL 1511 is strongly recommended
PHYSICAL EDUCATION

PHED 1410
Conditioning for Athletics
(1 Lab; 1 Cr)
This course allows for students to engage in physical fitness conditioning for interscholastic sports. Students are required to participate actively in an athletic conditioning program which is sport specific that will increase strength as well as aerobic capacity through a variety of activities. The student will build an understanding of sport specific training principles using various training methods. Overall, the course will help develop and prepare students to compete in interscholastic sports.

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 cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. Each student will develop personal skills for a lifetime fitness program.

PHED 1419
Introduction to Recreation
(2 Lec; 2 Cr)
This course provides an introduction to the field of organized recreation and leisure services. The course will examine the history of leisure and recreation as well as past and present trends.

PHED 1420
Principles of Coaching
(3 Lec; 3 Cr)
This course is designed to prepare students for successful entry into the coaching profession. Major emphasis is placed upon coaching philosophy, sport psychology, group dynamics, and public relations.
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 1428
Country Western Dance
(2 Lab; 1 Cr)
This course will introduce a variety of Country Western dances including Texas Schottische, San Antonio Stroll, Cotton-Eyed Joe, Texas Two-Step, Cowboy Polka, Cowboy Jitterbug, Country Waltz, and various line dances. The essential elements of dance and dance etiquette will be studied.

PHED 1429
Social Dance
(1 Lab; 1 Cr)
Starting at the beginning level, students will learn the basic steps to popular social dances such as east coast/west coast swing, waltz, traditional slow dance, polka, salsa, rumba, tango, fox trot, schottische, “Electric Slide” and “Saturday Night Fever.” The definition and principles of social dancing will be explored through timing, posture, balance, experiencing different styles of music, technique, and ballroom etiquette. Social dance can also be a great form of exercise as well as a useful social tool.
PHED 1430
Disc Golf
(1 Lab; 1 Cr)
The course offers the student the opportunity to develop basic skills for lifelong participation in disc golf. The purpose of this class is to present the playing skills, rules, and knowledge of the game of disc golf to the beginner in such a manner that he/she can develop skills to advance to the intermediate level.

PHED 1434
Analysis of Sport – Golf
(1 Lec; 1 Cr)
This course provides students with the basic principles of golf coaching. This course is designed to prepare students for successful entry into the golf coaching profession. Major emphasis will be placed upon golf fundamentals and drills, strategies, practice organization, and in-match management.

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 1436
Advanced Golf
(1 Lab; 1 Cr)
A course for those interested in developing golfing skills beyond the beginning level.

PHED 1440
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 1444
Analysis of Sport – Volleyball
(1 Lec; 1 Cr)
This course provides students with the basic principles of volleyball coaching. This course is designed to prepare students for successful entry into the volleyball coaching profession. Major emphasis will be placed upon position fundamentals and drills, offensive/defensive strategies and preparation, practice organization, and in-game management.
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 1454
Analysis of Sport – Softball
(1 Lec; 1 Cr)
This course provides students with the basic principles of softball coaching. This course is designed to prepare students for successful entry into the softball coaching profession. Major emphasis will be placed upon position fundamentals and drills, offensive/defensive strategies and preparation, practice organization, and in-game management.

PHED 1464
Analysis of Sport – Football
(1 Lec; 1 Cr)
This course provides students with the basic principles of football coaching. This course is designed to prepare students for successful entry into the football coaching profession. Major emphasis will be placed upon position fundamentals, offensive/defensive strategies and preparation, practice organization, special teams and drills.

PHED 1467
Beginning Downhill Skiing
(1 Lab; 1 Cr)
This course will present basic skills needed for lifelong participation in skiing. This class will begin at the non-skier level and progress through the basic skills of balance, rotary, edging, pressure skills, and wedge and parallel turns. The language of ski safety will also be discussed. The course will be divided into ability levels as needed. The class will meet at Giants Ridge Ski Resort.

PHED 1468
Intermediate Downhill Skiing
(1 Lab; 1 Cr)
This course presents basic skills for lifelong participation in skiing. This course focuses on the advanced skills and techniques of downhill skiing. Technique and skill development in traversing, turning, speed control and stopping will be included. This course is geared to those with skiing experience, with students having mastered beginning skiing skills. The class will meet at Giants Ridge Ski Resort.

PHED 1474
Analysis of Sport – Basketball
(1 Lec; 1 Cr)
This course provides students with the basic principles of basketball coaching. This course is designed to prepare students for successful entry into the basketball coaching profession. Major emphasis will be placed upon position fundamentals and drills, offensive/defensive strategies and preparation, practice organization, and in-game management.
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 1484
Analysis of Sport – Baseball
(1 Lec; 1 Cr)
This course provides students with the basic principles of baseball coaching. This course is designed to prepare students for successful entry into the baseball coaching profession. Major emphasis will be placed upon position fundamentals and drills, offensive/defensive strategies and preparation, practice organization, and in-game management.

PHED 1487
Danceline
(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
(3 Lec; 3 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 1493
Varsity Golf
(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 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 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 2417  
**Exercise and Fitness Assessments**  
(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 2415, Math 1521 or Math 1545
PHED 2418  
Group and Individual Exercise Instruction  
(3 Lec; 3 Cr)  
The course covers the advanced theory and professional practice of exercise leadership, design of group and individual exercise sessions, supervision of participants, and modification of exercise prescriptions. It includes techniques of exercise adherence and practicum experience with cardiovascular and resistance programs.  
Prerequisite: PHED 2415, PHED 2417

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 will be examined in the following areas: children, religion, interscholastic and intercollegiate sport, politics, and race and gender issues.

PHED 2426  
Psychology of Sport and Physical Activity  
(3 Lec; 3 Cr)  
This course will focus on the psychological issues of sport and physical activity. Research, principles and issues will be presented. Further study will involve the effects physical activity has on performance enhancement, communication, attitudes, and motivation.

PHED 2451  
Advanced Weight Training  
(1 Lab; 1 Cr)  
Students are expected to be familiar with the fundamentals of weight training. Advanced Weight Training will provide a thorough education of the proper mechanics of weight lifting. The course will also demonstrate how to effectively plan training programs and assessments based on individual goals. The class will consist of 20% lectures and 80% weight training, where students will apply what they have learned. There will be skills tests, physical assessments, and goal setting papers. Students will be introduced to advanced forms of weight training, powerlifting, bodybuilding, and sport-specific training. Proper technique, exercise selection, programming, nutrition, and anatomy/physiology of weight training will be discussed.  
Prerequisite: PHED 1415 or consent of instructor

PHYSICS

PHYS 1541  
Physical Science  
(3 Lec, 1 Lab; 4 Cr)  
Goal 3 & 10  
This course will cover four areas of physical science: physics, chemistry, atmospheric science, and geology. The physics portion will cover measurements, motion, forces, energy, heat, and electricity and magnetism. The chemistry portion will cover chemical bonding, chemical reactions, and gases. The atmospheric science portion will cover Earth’s atmosphere and its dynamics. The geology portion will cover surface processes, plate tectonics, minerals, and rocks  
Prerequisites: Math 0095, CPT placement, or instructor’s consent
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, 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.
Prerequisite: Higher Algebra

PHYS 1561
College Physics I
(3 Lec, 1 Lab; 4 Cr)
Goal 3
This course will cover kinematics, Newton’s Laws, circular motion, linear momentum, rotation motion and dynamics, elasticity, fluids, wave motion, and sound with a potential section on thermodynamics.
Prerequisite: College Algebra

PHYS 1562
College Physics II
(3 Lec, 1 Lab; 4 Cr)
Goal 3
This course will cover thermodynamics (if not already covered in the previous semester), electricity and magnetism, optics, and the wave nature of light.
Prerequisite: PHYS 1561 or consent of instructor

PHYS 1565
Astronomy: The Solar System
(2 Lec; 2 Cr)
Goal 3
This course is a non-mathematical study of the Solar System: the sun, the planets, the asteroids, and the comets. This is a study of their present structure and origin.

PHYS 1566
Astronomy: The Universe
(2 Lec; 2 Cr)
Goal 3
This course is a non-mathematical study of the Universe outside the Solar System. Properties of different stars, galaxies, neutron stars, black holes, evolution of the Universe are covered in this course.
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 kinematics, Newton's Laws, circular motion, gravity, mechanical energy, linear momentum, rotation motion and dynamics, elasticity, fluids, waves, sound, and thermodynamics. 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 electricity and magnetism, electromagnetic waves, optics, interference, and diffraction. In addition, the course will cover some modern physics, if time permits. Prerequisite: PHYS 1571, and concurrent enrollment in MATH 1562, or instructor's consent

PHYS 1581
Engineering Physics Lab I
(1 Lab; 1 Cr)
Engineering Physics I Lab - required as part of Engineering Physics I.

PHYS 1582
Engineering Physics Lab II
(1 Lab; 1 Cr)
Engineering Physics II Lab - required as part of Engineering Physics II.

PHYS 2430
Modern Physics I
(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 1558
Intro to Political Science
(3 Lec: 3 Cr)
Goals 5 & 8
This course deals with a number of topics that are part of the academic discipline of political science, including political theory, political ideologies, government, political culture, politics of diversity, politics of media, politics of change, political economy, international politics, and comparative government. The course draws its context and contents, its examples and its processes, from a global reality as much as possible, giving the course a special emphasis on the topics of comparative government and international politics. The course also requires students to examine their own political experience, political ideas, political culture, and political socialization in the context of considerations of alternative diverse opinions, interests, and ethical views. The course also introduces the study of comparative systems through consideration of other governments and thus is viewed not only as a general introductory course, but also counts as a Global Perspective course.

POLS 1559
International Relations
(3 Lec; 3 Cr)
Goals 5 & 8
This course is a study of contemporary and historical international relations, foreign policy and international organizations.
Prerequisite: College level reading
POLS 2459
Political Science Internship
(1-3 Cr)
The political science internship will provide the student with supervised work experience in any political setting. Examples (not exhaustive) include local government councils, local government agencies, state government including Minnesota House and Senate, and the federal government level. Consent of instructor is required.
Prerequisite: Past or current enrollment in POLS 1556 or POLS 1557. Consent of instructor.

PROCESS AUTOMATION SYSTEMS (currently ECM – Electronics Control & Maintenance)

PAS 1225
Electrical & Industrial Automation Projects
(2 - 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 Process Automation Systems. The course content will be determined on an individual basis dependent on student needs and departmental requirements. The ECM department, in coordination with the student, will design an individual plan that meets specified objectives.
Prerequisite: Industrial electrical experience, previous electrical related course work.

PAS 1235
Electrical for Industrial Mechanical Technology
(1 Lec, 3 Lab; 4 Cr)
This course provides a general knowledge of industrial electrical systems. The curriculum encompasses electrical safety, fundamentals of electricity, electrical distribution systems, and industrial motor control and protection systems for personnel and equipment. The course focus is on practical knowledge needed by multiple craft, mechanical, and operation personnel.

PAS 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.

PAS 1256
Process Control for Operators
(3 Lec, 1 Lab; 4 Cr)
This course provides an overview of the system and process controls. The course outlines common system control configurations, equipment layouts, and quality control strategies. Included in the coursework is a general overview of control standards, flow meters and calibration, radioactive safety, instrumentation components, process parameters and terminology, operator interface and system troubleshooting. The course focus is on practical application from an operational viewpoint.
Prerequisite: EIAT/ PAS 1255
PAS 2265
Electrical Control of Machines
(1 Lec, 1 Lab; 2 Cr)
This course covers the discrete and integrated circuit elements used in modern control systems. The course includes the expanding use of solid-state and microprocessor control of systems, and the use of fluid and electrical-mechanical power. Topics covered will include machine control power courses, control system and machine environments, motion control of machines, and complex control situations.
Prerequisite: EIAT/PAS 1233, 1243, 1244, 1253, and 1295

PAS 2275
Robotic Work Cells
(4 Lab; 4 Cr)
This course covers basic robot principles through applied theory and practical lab applications. The course will cover all of the individual components that it takes to make up a total robotic system. The construction, programming, and operation of the training robot used is identical to most industrial robots which are being used in industry. The training robot will be integrated into work cells with actual industrial sensors and equipment.
Prerequisite: EIAT/PAS 1233, 1243, 1244, 1253, and 1295

PSYCHOLOGY

PSYC 0096
Goals Clarification
(1 Lec; 1 Cr)
This course is designed for those students who have been readmitted to school after academic suspension. The two main goals of the course are to: (a) monitor the academic progress of each student according to the terms his/her readmission contract; (b) focus on factors that lead to suspension, future academic goals and ways to achieve those goals. Topics will include: attitudes, behaviors, self-discipline, focus of control, procrastination, accountability, decision-making, and goal setting.
Prerequisite: Instructor permission to enroll in course

PSYC 1415
Freshman Year Experience
(1 Lec; 1 Cr)
This course is designed to assist first year students to identify educational goals, career paths, and transfer options. In addition, the course will address social concerns that affect the first year student with the goal of promoting student success. 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 1445
Leadership Development Strategies
(1 Lab; 1 Cr)
This course is designed to assist students in developing leadership skills to enhance their personal effectiveness. Students participate in a weekend learning community where they have an opportunity to learn by observation, role-playing and participating in leadership development activities. All students who desire to enhance their college experience should consider this option. Each student’s strengths, interests and aspirations are recognized while providing instruction and experiences that will enable students to develop skills in goal setting, team building, communications, and values clarification.
This course provides numerous opportunities that will enable students to observe and practice leadership skills and competencies. Students will also have an opportunity to test out their leadership skills in various ways. This is accomplished through a combination of the successful completion of the weekend leadership training and active participation in student governed boards, such as the college Judicial Board, Student Life Committee, Student Senate, etc.

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 1456
Introduction to Higher Education
(1 Lec; 1 Cr)
This course in an introduction to Higher Education is designed to promote success 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.

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
This course is an 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. This course is designed 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 ENGL or READ 0082, reading and writing intensive

PSYC 2555
Psychology of Aging
(3 Lec; 3 Cr)
Goals 5 & 7
This course provides an overview of the developmental period from early adulthood through death, with emphasis on the aging process with an in-depth examination of the theories of adult change or development. The following areas are included: personal maturity, psychological concerns of the aged, counseling the elderly, and how to deal with grieving and death.
Prerequisite: PSYC 2551

PSYC 2556
Industrial/Organizational Psychology
(4 Lec; 4Cr)
Goals 5 & 7
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.
Prerequisite: Reading and writing intensive

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 2565
Child and Adolescent Development
(3 Lec; 3 Cr)
Goal 5
This course provides an overview of human development from conception through adolescence. Major theories and research are used to examine physical, perpetual, emotional, cognitive, linguistic, social and moral development.
Prerequisite: PSYC 2551 (or previous course PSYC 220), reading and writing intensive

PSYC 2567
Lifespan 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 lifespan.
Prerequisite: PSYC 2551; reading and writing intensive

PSYC 2575
Introduction to Co-Occurring Disorders
(4 Lec; 4 Cr)
Goals 5 & 9
Significant numbers of chemically-dependent individuals have one or more mental disorders. This introductory course is designed to help students become familiar with the most common mental disorders, the interrelationship between mental disorders and substance abuse as well as the various counseling methods and treatment approaches for the dually-diagnosed client.
Prerequisite: PSYC 2551 and, either HLTH 1465, HSER 1465 or CDEP 1255

PSYC 2655
Group Dynamics
(3 Lec; 3 Cr)
Goal 5
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. Participation will include group dynamics, determining group purpose, basic group roles, stages of group development, group members’ roles, group leader roles, and functions.
Prerequisite: None for non-Human Service majors; HSER 1232 Helping Process for Human Service majors, college level reading and writing
READING

READ 1455
Critical Reading Skills
(2 Lec; 2 Cr)
This is a course designed to help student’s 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 ENGL or 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.
Prerequisite: 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.
Prerequisite: College level reading and writing

SOC 1555
Introduction to Sociology
(3 Lec; 3 Cr)
Goals 5 & 7
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 ENGL or READ 0082
SOC 1556
Introduction to Community Organizing and Development
(3 Lec; 3 Cr)
Goals 5 & 9
This course will introduce students to community based organizing and the development and maintenance of community based development organizations. The class covers the history of organizing, the role of community organizing in a democratic society, solving social problems through community organizing, the concept of empowerment, and the structure of community based organizations.

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 ENGL or READ 0082

SOC 1558
Human Relations
(3 Lec; 3 Cr)
Goals 5 & 7
Designed to introduce students to the breadth and depth of the field of human relations. Emphasis is on the processes of communication, problem solving, decision making, conflict and change as they occur in individuals, interpersonal, group and intergroup relations.
Prerequisite: 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 ENGL or 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 ENGL or READ 0082, writing intensive
SPANISH

SPAN 1451
Conversational Spanish I
(2 Lec; 2 Cr)
This is a basic course in communicative Spanish. Areas of special interest such as law enforcement, social work, and travel are integrated into this course.

SPAN 1452
Conversational Spanish II
(2 Lec; 2 Cr)
This course is a continuation of the basic communicative Spanish course (SPAN 1451). Areas of special interest such as law enforcement, social work, and travel are integrated in this course. Prerequisite: SPAN 1451

SPAN 1461
Spanish I
(4 Lec; 4 Cr)
Goal 8
This is a functional course in speaking, listening, reading, and writing the Spanish language. Learners will be given the opportunity to grasp the challenge of a foreign language. Pronunciation, practical vocabulary, grammar, reading and conversation are an integral part of this course. Prerequisite: College level reading

SPAN 1462
Spanish II
(4 Lec; 4 Cr)
Goal 8
This is the second semester of a functional course in speaking, listening, reading, and writing Spanish. The learners will have the opportunity to grasp the challenge of a foreign language and culture. Pronunciation, practical vocabulary, grammar, reading and conversation are an integral part of this course. Prerequisite: SPAN 1461 and college level reading

SPAN 1540
Culture and Civilization of Spain
(3 Lec; 3 Cr)
Goal 6 & 8
Explore the culture and civilization of Spain including its history, music, dance, art, literature, film, architecture, and cuisine. This course will give students an appreciation for the fascination and mystery of the Iberian Peninsula and its role in Western Civilization from Roman times to the present. In developing their understanding of Spanish culture students will gain a better understanding of their own culture. Taught in English. Prerequisite: College-level reading and writing.
SPAN 1550
Culture and Civilization of Hispano-American
(3 Lec; 3 Cr)
Goal 6 & 8
Explore the culture and civilization of Hispano-American. Students will gain an appreciation for the mixture of indigenous, colonial, and modern cultures that has produced the countries of Latin America. Topics include music, dance art, literature, film, architecture, history, and cuisine. Examination of the similarities and differences between United States culture and that of Hispano-American will give students a better understanding of their own culture.
Prerequisite: College-level reading and writing.

SPAN 2463
Spanish III
(3 Lec; 3 Cr)
Goal 8
Students further develop their skills in listening, speaking, reading, and writing Spanish. Students will review various aspects of Spanish grammar and style as well as read and analyze selected texts of modern prose. An awareness and appreciation of Hispanic cultural values and patterns of behavior are an integral part of this course.
Prerequisite: SPAN 1416 (or previous SPAN 102 and 103), college level reading

SPAN 2464
Spanish IV
(3 Lec; 3 Cr)
Goal 8
A continuation of Spanish III. Students continue to develop their skills in listening, speaking, reading, and writing Spanish. Students will review various aspects of Spanish grammar and style as well as read and analyze selected texts of modern prose. An awareness and appreciation of Hispanic cultural values and patterns of behavior are an integral part of this course.
Prerequisite: SPAN 2463 (or previous course SPAN 203) and college level reading

SPEECH

SPCH 1457
Introduction to Speech Communication
(3 Lec; 3 Cr)
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, small group communication, intercultural communication, interviewing, and public speaking.

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 7 & 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 and Group Communication  
(3 Lec; 3 Cr)  
Goals 7 & 9  
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 community organization, classroom, or an executive committee connected with a career. Team 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.
SPCH 2565  
Oral Interpretation  
(3 Lec; 3 Cr)  
Goal 6  
This course is concerned with the study and practice of the principles involved in oral reading. Included within the course is an analysis and presentation of literary selections representing a variety of genres and forms of interpretation.  
Prerequisite: College level reading

STATISTICS

STAT 2551  
Statistics I  
(4 Lec; 4 Cr)  
Goal 4  
This course is an introduction to descriptive and inferential 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 correlation, analysis of variance, time series analysis, and decision theory. The course includes use of computer programs.  
Prerequisite: STAT 2551 (MATH 1521 is recommended, but not required), reading intensive

STUDENT SUPPORT SERVICES

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 management and the grieving process will be explored to improve healthy coping skills. This course is open only to Student Support Services 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 introduction to academic 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 College. This course is open only to Student Support Services students.
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, with other aspects of the job search covered, briefly. This course is open only to Student Support Services students.

TEACHER ASSISTANT / INSTRUCTIONAL AIDE

TAIA 1202
Guiding Children’s Development & Behavior I
(4 Lec; 4 Cr)
Students will develop a basic knowledge and understanding of child development with an intensive focus on children, birth to eight years of age. Redirection of children’s behavior and additional guidance techniques will be presented. In addition, students will learn how to use indoor and outdoor space effectively in order to meet children’s growing developmental needs.

TAIA 1204
Understanding and Communicating with Diverse Families
(2 Lec; 2 Cr)
Students will build a strong foundation of understanding families as a mutual support system and explore a myriad of communication strategies in order to foster an inclusive, relationship-based approach to build mutual trust when interacting with families.

TAIA 1208
Guiding Children’s Development & Behavior II
(3 Lec; 3 Cr)
Students will develop a basic knowledge and understanding of child development with an intensive focus in the preschool through adolescence years. Social skill development and strategies for managing behavior will be addressed. Students will learn how to use space and materials to develop a positive learning environment inclusive of all children/youth.

TAIA 1210
Historical & Legal Foundations of Education
(2 Lec; 2 Cr)
This course is designed to provide knowledge 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 a teacher’s assistant or instructional aide in the public school setting.
### TAIA 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 apply their knowledge of child development to create a stimulating learning environment which incorporates the use of developmentally appropriate activities, materials, and equipment.

### TAIA 1214
**Experiential Learning in the Elementary or Secondary Classroom**  
(3 Lec; 3 Cr)  
This course will provide experiential learning in the elementary or secondary classroom in order to increase student awareness of diverse learners.

### TAIA 1216
**Professionalism on the Education Team**  
(3 Lec; 3 Cr)  
This course provides a comprehensive overview regarding the roles and responsibilities of becoming a member of a professional education team. Participants in this course are required to take the Para Pro Examination and are assigned a special course fee to cover this cost.

### TAIA 1218
**Health, Safety and Nutrition**  
(3 Lec; 3 Cr)  
This course provides focused training in recognizing and caring for child breathing and cardiac emergencies as well as basic first-aid. Environmental health and safety are addressed with an emphasis on prevention. A basic nutritional component is integrated which provides a basis for students to understand appropriate food handling and sanitation.

### TAIA 1220
**Teaching Young Children with Challenging Behaviors**  
(3 Lec; 3 Cr)  
This course introduces participants to universal promotion, secondary prevention, and tertiary intervention approaches to educate and care for children with challenging behaviors. In addition, participants will learn how to conduct a functional behavior assessment and provide positive behavior support. Physical space, appropriate routines, and a myriad of transition and teaching strategies will also be addressed.

### TAIA 2202
**Foundations in Assessment & Special Education**  
(4 Lec; 4 Cr)  
This course explores the purpose of designing student learning outcomes as well as introduces multiple modes of assessment in order to measure student learning. In addition, it provides an overview of Special Education laws in the United States as well as defines the role of the Paraprofessional on the education team.
TAIA 2206
**Trauma Informed Teaching**
(3 Lec; 3 Cr)
Students will be able to articulate the essential findings from the Adverse Childhood Experiences (ACEs) Kaiser Research Study as well as be able to recognize ACEs in children and families. Students will develop the necessary skills to become mandated reporters, which include the ability to identify and report what constitutes child abuse, and neglect in the state of Minnesota. In addition, students will learn how to identify and make appropriate referrals when working with families. Furthermore, students will explore successful intervention approaches to working with children who have experienced trauma.

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

TAIA 2212
**Assisting with Math & 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.

TAIA 2214
**Positive Behavior & Guidance Techniques**
(2 Lec; 2 Cr)
This course introduces students to a variety of positive guidance techniques when working with children birth to eight years of age. These strategies include redirection, encouraging cooperation, problem solving and conflict resolution skills; and promoting positive social/emotional development. Strategies to engage families in the guidance process are also addressed.

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 ENGL or READ 0082
THTR 1557  
Applied Acting Techniques  
(3 Lec; 3 Cr)  
Students in this course will explore basic acting concepts and will develop an awareness of themselves, others, the actor’s discipline, and the nature of stepping into a role. Students applying the concepts of this course have the potential to become better, more effective learners and/or beginning actors.

THTR 1565  
Acting for the Stage  
(3 Lec; 3 Cr)  
Goal 6  
Students in this course will explore basic acting concepts including improvisation, characterization, vocal control, movement, performance preparation, and relaxation techniques. Further, students will explore objective, intention, and motivation as means to understanding character and creating a believable onstage performance.

THTR 2315  
Theatre Practicum  
(1 Lab; 1 Cr)  
The Theatre Practicum credit is available for students who participate in the theatre productions on campus at Mesabi. Students can experience 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: THTR 1565, CPT score of 72 or “C” or higher in ENGL or READ 0082

WELDING TECHNOLOGY

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.
Prerequisite: Concurrent enrollment in or previous completion (GPA 2.0) of WELD 1221

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.
Prerequisite: Concurrent enrollment in or completion (GPA 2.0) of WELD 1221

WELD 1224
SMAW Alloyed 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 Stainless Steel 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.
Prerequisite: Concurrent enrollment in or completion (GPA 2.0) of WELD 1221

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
Flame Joining Processes
(1 Lab; 1 Cr)
This course covers the AWS National Skills Standards related to Oxy-fuel 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.
Prerequisite: Concurrent enrollment in or previous successful (GPA 2.0) of WELD 1231
WELD 1233
Cutting and Gouging Processes
(4 Lab; 4 Cr)
This course covers the AWS National Skills Standards related to OFC, 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.
Prerequisite: Concurrent enrollment in or previous successful (GPA 2.0) of Weld 1231

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; 1Cr)
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, Weld 1231, Weld 1261, Weld 1271, Weld 1281, depending on applicability.
Prerequisite: Concurrent enrollment in or previous successful completion (GPA 2.0) of courses pertinent to the welding process (Weld 1221, Weld 1231, Weld 1261, Weld 1271, Weld 1281) to be used to complete the project

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 I
(.5 Lec; .5 Lab; 1 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 fundamentals, techniques, equipment, and shielding gases related to GMAW-S. Light to heavy ferrous materials will be welded in the 1F, 2F, 1G, & 2G positions in a work-like setting.
WELD 1262  
Gas Metal Arc Welding II  
(2 Lab; 2 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 ferrous and non-ferrous materials will be welded in the 1F, 2F, 3F, 4F, 1G, 2G, 3G, & 4G positions utilizing various techniques.  
Prerequisite: Concurrent enrollment in or previous successful (GPA 2.0) of Weld 1261

WELD 1271  
Gas Tungsten Arc Welding I  
(1 Lec; 2 Lab; 3 Cr)  
This course introduces the student to the background information and theory 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 will be welded in multiple positions.

WELD 1272  
Gas Tungsten Arc Welding II  
(2 Lab; 2 Cr)  
This course covers the AWS National Skills Standards related to the Gas Tungsten Arc Welding Process of non-ferrous materials and the related safety practices. The student will become familiar with GTAW fundamentals, equipment, filler metals and shielding gases related to GTAW. Stainless steel and aluminum will be welded in multiple positions.  
Prerequisite: Concurrent enrollment in or previous successful completion (GPA 2.0) of Weld 1271

WELD 1281  
Flux Core Arc Welding I  
(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, 1G, & 2G, positions.

WELD 1282  
Flux Core Arc Welding II  
(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 3F, 4F, 3G, & 4G positions.  
Prerequisite: Concurrent enrollment in or previous successful (GPA 2.0) of Weld 1281
WELD 2240
Properties of Welding I
(1 Lec; 1 Cr)
The purpose of this course is to continue the students' understanding of the Shielded Metal Arc Welding processes as applied to pipe and stainless steel welding. It will also expand the students' knowledge in the metallurgy of carbon and stainless steels. In addition, this course will also cover the AWS Standards (AWS D1.1, D1.6, API 1104) pertaining to plate, pipe and stainless steel certification.
Prerequisite: A 2.0 average or better in Weld 1253, or consent of instructor

WELD 2241
Shielded Metal Arc Welding - Pipe
(5 Lab; 5 Cr)
The purpose of this course is to afford the student the opportunity to become proficient welding pipe to AWS D1.1 and API 1104 codes using the Shielded Metal Arc process.
Prerequisite: A 2.0 average or better in Weld 1222 and Weld 1223, or consent of instructor

WELD 2242
Advanced Blueprint Reading
(1 Lec; 1 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 average or better in Weld 1241 or consent of instructor.

WELD 2243
Flux Core Arc Welding III
(4 Lab; 4 Cr)
The purpose of this course is to afford the student the opportunity to become proficient welding plate and structural steel in all positions using Flux Core Arc Welding (self and dual shield) processes. AWS D1.1 and D1.6 codes will be followed.
Prerequisite: A 2.5 average or better in Weld 1281a, 1281b, or consent of instructor.

WELD 2244
Shielded Metal Arc Welding-Structural
(2 Lab; 2 Cr)
The purpose of this course is to acquire the skills necessary to weld Low-Hydrogen electrodes in all positions to the profiles and acceptance criteria of AWS D1.1-Structural and AWS D1.5-Bridge.
Prerequisite: A 2.0 average or better in Weld 1223, or the consent of instructor.

WELD 2245
Gas Tungsten Arc Welding – Pipe & Tube
(3 Lab; 3 Cr)
The purpose of this course is to afford the student the opportunity to become proficient welding carbon steel pipe roots and tube using the Gas Tungsten Metal Arc (TIG) process to the standards prescribed in the appropriate AWS, API, and ASME codes.
Prerequisite: A 2.0 or better in Weld 1271, 1271b, or consent of instructor.
WELD 2251
Gas Metal Arc Welding III
(4 Lab; 4 Cr)
The purpose of this course is to afford the student the opportunity to become proficient welding plate, pipe, and sheet steel, stainless steel and aluminum in all positions using Gas Metal Arc Welding (spray, short circuit) processes. AWS D1.1 and AWS D1.7 codes will be followed. Prerequisite: A 2.0 or better in Weld 1261, 1261b, or consent of instructor.

WELD 2252
Gas Tungsten Arc Welding III
(3 Lab; 3 Cr)
The purpose of this course is to afford the student the opportunity to become proficient with the 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: A 2.0 or better in Weld 1271, 1271b, or consent of instructor.

WELD 2253
Template Development
(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. Duct layout for welding will also be performed. Prerequisite: A 2.0 in Weld 1255 or equivalent, or consent of instructor.

WELD 2257
Rigging for Welders
(.5 Lec, .5 Lab; 1 credit)
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. (This portion of the course is dependent upon equipment availability).

WELD 2265
CNC Programming and Cutting
(.5 Lab, 2.5 Lec, 3 Credits)
This course provides studies in CNC programing and cutting commonly done in fabrication shops.

WELD 2275
Stainless Steel Welding
(2 Lab; 2 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 2.0 GP in Weld 1224 or consent of instructor.
**MINNESOTA STATE COLLEGES AND UNIVERSITIES (MinnState)**

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<tr>
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<th>Start Date – End Date</th>
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<tbody>
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<td>BASIL AJUO</td>
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</tr>
<tr>
<td>ROBERT HOFFMAN</td>
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<tr>
<td>ANN ANAYA</td>
<td>St. Paul</td>
<td>August 6, 2012 through June 30, 2018</td>
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<tr>
<td>JERRY JANEZICH</td>
<td>St. Paul</td>
<td>August 24, 2016 through June 30, 2022</td>
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<tr>
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<td>St. Paul</td>
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<td>ROGER MOE</td>
<td>St. Paul</td>
<td>December 20, 2016 through June 30, 2020</td>
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<td>ALEX CIRILLO</td>
<td>Woodbury</td>
<td>August 6, 2012 through June 30, 2018</td>
</tr>
<tr>
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<td>JAY COWLES - TREASURER</td>
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</table>

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GIERMANN, KIMBERLEE
Biology, Chemistry
B.S. University of Minnesota-Duluth
M.S. University of Idaho

GREGG, JEFF
English
B.A. University of Minnesota-Duluth
M.A. University of Minnesota-Duluth

HAZAREESINGH, L., Ph.D.
Mathematics, Statistics
B.S. University of Colombo (Sri Lanka)
M.A. University of Georgia
Ph.D. University of Georgia

HOLM, SCOTT
Construction Management
A.A.S. North Hennepin Community College
M.A. University of Minnesota-Twin Cities
B.A. University of Minnesota-Twin Cities

HONKOLA, 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

HULTMAN, KARIANNE
Nursing
A.S. Hibbing Community College
A.A. Mesabi Range College
B.S.N. College of St. Scholastica
INFORZATO, THOMAS
Football Coach and Retention Specialist
B.S. University of Wisconsin-Superior

JOHNSON, LUKE
English
B.A. Bemidji State University
M.A. Bemidji State University

JURGENS, STACY
Mathematics
B.S. Bemidji State University
M.A. Miami University of Ohio

KELSON, AARON, Ph.D.
Economics
B.S. Brigham Young University
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

KORPI, LAURA
Paramedic Program
A.A.S. Mesabi Range Community & Technical College

LAMPPA, DAVIS
Women’s Basketball Coach
B.S. University of Wisconsin-Superior
M.S. United States Sport Academy

LIABRAATEN, CRAIG
Music
M.M. Indiana University - Bloomington

LIND, DANIEL
Physical Education and General Studies
A.A. Mesabi Range College
B.S. St. Cloud State University
M.Ed. Montana State University

LUKAS, LEO
Carpentry
A.A. Mesabi Range College
LUTHENS, DEVON
Nursing
A.S. Vermillion Community College
L.P.N., R.N., A.A. Lake Superior College
B.A. Nursing St. Scholastica
M.S.N. South University

MACKEDANZ, KYLE
English
B.A. St. Cloud State University
M.A. St. Cloud State University

MATUSZAK, SARA
Sociology
A.A. Mesabi Community College
B.S. University of Wisconsin-Stout
M.S. University of Wisconsin-Stout

McLAUGHLIN, PAUL
Graphic Design Media
Certificate Hennepin Technical Center
B.A.S. University of Minnesota-Duluth
M.Ed. University of Minnesota-Duluth

NORCIA, SCOTT
Process Automation Systems
Diploma Eveleth Area Vocational Technical Institute
B.S. Bemidji State University

ONGALO, KRISTI
English
B.A. Gustavus Adolphus College
M.A. Hamline University

OSTENDORF, RYAN
Men’s Basketball Coach
M.A. St. Mary’s University of Minnesota

PARKER, WILLIAM
Engineering
B.M.E. University of Minnesota
M.B.A. University of Minnesota-Duluth
M.A. The College of St. Scholastica

PAVEK, MONICA
Mathematics
B.A. University of Minnesota-Morris
M.Ed. Southwest State University
PETRON, TYM
Psychology, Computer Applications
B.B.A. University Minnesota-Duluth
M.S.E. University Wisconsin-Superior

PRIJATEL, DAN
Graphical Design Media
B.S. Bemidji State University

RIENDEAU, MARY KAY
Human Services/Chemical Dependency
B.S. University of Wisconsin-Superior
M.S.W. University of Minnesota-Duluth

SAGER, NATHAN
Philosophy
B.A. Gustavus Adolphus
M.Div. Lutheran School of Theology–Chicago
D. Min. Luther Seminary

SATRANG, CARY
Industrial Mechanical Technology

SCOTT, BRADLEY
Physical Education and General Studies
Women’s Softball Coach, and Men’s and Women’s Golf Coach
B.S. University of Wisconsin-Superior
M.A. Bemidji State University

SCOTT, JOANNE
Athletic Director, Health, Women’s Volleyball Coach
B.S. University of Minnesota-Duluth

SEPPA, CARMEN O.
English
B.S. Manuela Canizares-Quito, Ecuador
M.S. University of Minnesota-Duluth

SKORICH, BRENDA
Business Operations & Management
B.A. College of St. Scholastica
M.S. College of St. Scholastica

SLATTERY, JASON
Physics and Chemistry
B.S. University of Wisconsin – Stevens Point
M.S. University of Iowa

STACKPOOL, THOMAS
Physical Education and General Studies
B.A. University of Minnesota-Morris
M.S. University of North Dakota-Grand Forks
STEVENS, ROBERT
Process Automation Systems
*Diploma Eveleth Area Vocational Technical Institute*
*B.S. University of Wisconsin-Stout*
*M.S. Indiana State University*

STRUKEI, KENNETH
Math
*M.S. Computer Science – Bemidji State University*

TORREL, JEFF
Nursing
*A.S. Hibbing Community College*
*A.A. Mesabi Range College*
*B.A. The College of St. Scholastica*

TROUTWINE, KATIE
Mesabi Foundation Office Manager
Mathematics
*A.A. Mesabi Range Community & Technical College*
*B.A. The College of St. Scholastica*
*M.Ed. Bemidji State University*

VITO, CHRISTOPHER
Baseball Coach
*M.Ed. North Dakots State University-Fargo*
*B.S. Minnesota State University Moorhead*
*A.A. Mesabi Range Community & Technical College*

WASHENESKY, RANDALL
Welding
*Diploma Duluth Area Vocational Institute*

WERSCHAY, EMILY
Communications
*B.A. The College of St. Scholastica*
*M.A. Minnesota State University*

ULSETH, RON
Engineering
*M.S. University of Central Florida*
*Licensed Professional Engineer*
STAFF

ALTOBELLI, CINDY
Student Services & Student Support Services Specialist
*Diploma Eveleth Area Vocational Technical Institute*

BIRD, JONATHAN
Assistant Director of Residential Life
B.S. Bemidji State Univ

BURIA-FALKOWSKI, DEB
Human Resources
*A.S. Normandale Community College*

CHOPP, BRITTANY
Upward Bound Coordinator
*A.A. Mesabi Range College*
*B.A.S. University of Minnesota Duluth*

CHRISTENSON, SHARI
Financial Aid/Records

DEPAULIS, LISA
Accounting Clerk Sr.
*Range Technical College*

GORMAN, MARY
Director of Instructional Services
*A.A.S. Mesabi Range Community & Technical College*
*A.A. Mesabi Range Community & Technical College*

HANSEN, LARAE
Financial Aid Assistant
*Diploma Eveleth Area Vocational Technical Institute*

JARVA, MATT
SSS/TRIO Advisor
Institutional Advisor/Student Senate-Student Life Advisor
Gaming Club Advisor
*A.A. Mesabi Range College*
*B.S. Bemidji State University*
*B.A. Bemidji State University*

JOHNSON, VALEORIA (KIM)
Library Technician
*A.A. Mesabi Range College*
KANGAS, BETH
Upward Bound
A.A. Mesabi Range College
B.S. Bemidji State University

KOCHÉVAR, BRENDRA
Enrollment Services and Public Information Director
A.A. Mesabi Range College
B.S. University of Hawaii-Honolulu

KOCHÉVAR, LEONARD
College Lab Assistant – Millwright

KUGEL, DANIEL
Information Technology Specialist 1
Computer Applications, Mesabi Range College
A.A. Mesabi Range Community and Technical College

KUOPUS, PHILIP
General Repair Worker

LANGDON, KEVIN
Advisor / Recruiter
A.A. Mesabi Range Community and Technical College

LAMPPA, DAVIS
Learning Center Coordinator/ Disability Director / Academic Advisor
B.S. University of Wisconsin-Superior
M.S. United States Sport Academy

MERKEL, GREG
General Maintenance Worker

MERRITT, RAINEE
General Maintenance Worker

MILLER, NICK
Information Technology Specialist 1
IT Networking – Hibbing Community College

MOTT, LUTASHA
Upward Bound
A.A. Mesabi Range College
B.A. Bemidji State University

NORENBERG, ZEB
Director, Upward Bound/Upward Bound Math Science
B.A. Bemidji State University
NORLANDER, CHARLENE  
Academic Advisor  
Concurrent Enrollment Program Coordinator  
*A.A. Hibbing Community College*  
*B.A. The College of St. Scholastica*

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  
Plant Maintenance Supervisor

PONTINEN, JODI  
Financial Aid Director  
*A.A.S. Mesabi Range College*  
*A.A. Mesabi Range College*  
*B.A. Ashford University*

PRATT, TOM  
Information Technology Specialist 3  
*CNET Program, Mesabi Range College*

SCOTT, BRADLEY  
Mesabi Foundation Director of Development  
*B.S. University of Wisconsin-Superior*  
*M.A. Bemidji State University*

SIKKILA, BILLIE  
Applied Learning Institute Program Manager  
*Diploma Northwest Technical College-Bemidji*

STEVINSON, REBECCA  
Registrar  
*B.S. Truman State University*

TOLBERT, RICHARD  
General Maintenance Worker

TURK, KELLY  
General Maintenance Worker
TWADDLE, SUZANNE  
Enrollment Services Specialist

VERONICK, BRIAN  
General Maintenance Worker

WILLARD, JENNIFER  
Director of Student Support Services  
PSEO Advisor  
A.A. Hibbing Community College  
B.A. The College of St. Scholastica  
M.S. Ed. Capella University