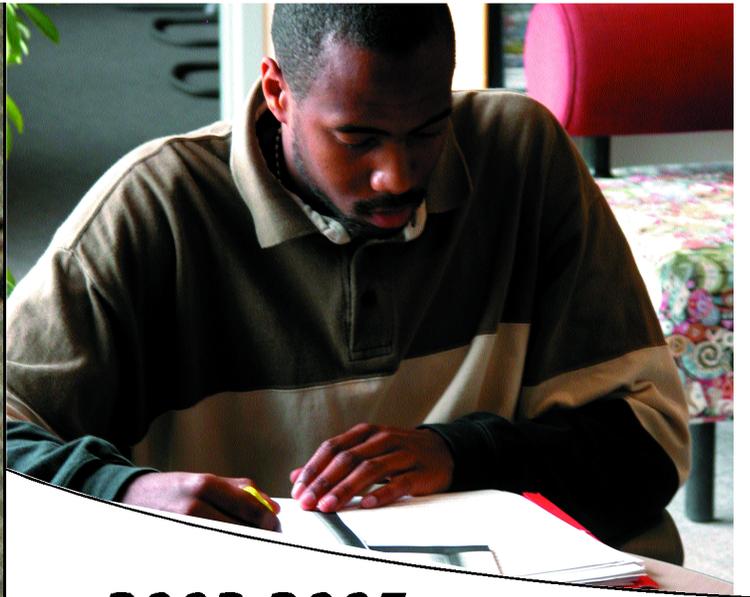


Lake Superior College

Where Tomorrow Starts Today!



2003-2005 CATALOG



Lake Superior College

2101 Trinity Road, Duluth, MN 55811
(218) 733-7601 • www.lsc.mnscu.edu





General Catalog 2003-2005

2101 Trinity Road
Duluth, MN 55811
www.lsc.mnscu.edu

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Greetings from Lake Superior College's President



Greetings and welcome to Lake Superior College. You will find that Lake Superior College is a dynamic, comprehensive college serving the needs of a variety of students, one that emphasizes student learning and student service.

LSC offers extensive pre-baccalaureate majors for students interested in transferring to senior educational institutions as well as more than 100 certificate, diploma, and degree programs in career/technical fields. Our Workforce Development and Extended Programs division collaborates extensively with area businesses

and industry to design specialized educational opportunities, including professional training.

LSC also offers more than 104 online courses through our popular Virtual Campus. These classes include fully transferable Minnesota Transfer Curriculum courses, electives, technical program courses, and developmental courses. On the average, LSC students opt for at least one online course, taking advantage of the scheduling flexibility, course availability, and a non-traditional learning approach.

You will find the faculty and staff at Lake Superior College to be friendly, sincere, and helpful. We are student-centered, creative, dedicated, and we take pride in helping students succeed. You have only to call, write, or connect with us to begin to experience the spirit of Lake Superior College.

We are constantly improving our existing programs and services, and looking for new opportunities, new approaches, and new services as we prepare to meet the educational challenges of the 21st century.

Best wishes to you as you explore the opportunities Lake Superior College has to offer you.

Dr. Kathleen Nelson
President

Mission Statement

VISION

Lake Superior College (LSC) continues as an area leader of higher education learning opportunities by delivering excellent instruction, innovative programming, and dedicated service in an engaging, comfortable environment. Lake Superior College will excel in student development and community responsiveness.

MISSION STATEMENT

Lake Superior College provides high quality, affordable higher education that benefits diverse learners, employers, and the community. LSC's academic, technical, continuing education, and workforce development offerings prepare learners for a rapidly changing global community. Our services support learning, and our partnerships connect the college and its learners to a broader spectrum of community life.

Our mission is characterized by:

- * A strong sense of community
- * Trust, respect, and integrity
- * Personal attention
- * Accountability
- * Innovation and flexibility
- * Life-long learning and personal growth

PURPOSES

To accomplish our mission, LSC:

1. Encourages the free exchange of ideas and beliefs and promotes innovation.
2. Provides programs and courses that
 - Enable transfer to other colleges and universities
 - Lead to career opportunity or enhancement
 - Enable continuing education and personal enrichment opportunities
 - Prepare students for college-level work
 - Enrich the social and cultural growth of learners
 - Promote ethical and responsible citizenship
 - Provide customized educational content and delivery systems.
3. Embraces assessment and continuous quality improvement through a college-wide plan designed to measure and improve student academic achievement and institutional effectiveness.
4. Provides comprehensive student services, student life opportunities, and access to learning resources and technologies.
5. Is committed to excellence in teaching as reflected in hiring practices, access to fiscal resources and technology, and the provision of professional development opportunities.
6. Is committed to the integration of general education as appropriate.
7. Establishes collaborative partnerships.

COLLEGE VALUES

The Lake Superior College community affirms the worth and dignity of each individual and promotes equity of access and opportunity. These principles form the foundation of our values.

LSC values accessible and lifelong learning opportunities.

To support this value, the College:

- provides a comprehensive educational program
- emphasizes general education outcomes across the college
- provides personal and professional continuing education
- promotes professional development
- provides resources and delivery systems that improve learning, increase access and promote lifelong learning

LSC values equity and diversity.

To support this value, the College:

- provides support services to assist students in meeting their educational and career goals
- provides supplemental support services for students with identified needs
- provides equal opportunity in education and employment
- supports understanding of cultural diversity

LSC values the pursuit of excellence, innovation and initiative.

To support this value, the College:

- has established standards of performance
- adheres to assessment practices designed to improve student academic achievement and institutional effectiveness
- is committed to continuing dialogue with its external constituencies
- promotes and supports initiative and innovation
- promotes and supports a high quality of education

LSC values a sense of community.

To support this value, the College:

- offers student life opportunities that enrich the educational experience
- is committed to assessing needs in the region and within the student body to ensure continued services that meet the needs of constituencies
- has established a governance structure for shared decision-making
- cooperates with other educational systems
- sponsors activities that enrich the community
- fosters an environment of trust, equity, compassion and respect

LSC values academic freedom and free inquiry.

To support this value, the College:

- encourages the free interchange of ideas and beliefs
- promotes innovation and initiative in the classroom

LSC values integrity.

To support this value, the College:

- adheres to standards of financial accountability and disclosure
- is committed to ongoing accreditation for the institution and its programs
- encourages ethical decision-making
- articulates its relationships with other educational institutions
- supports the responsible stewardship of its resources

LSC values all its stakeholders.

To support this value, the College:

- participates in partnerships with business, industry, labor, and government agencies
- participates in partnerships with other educational systems
- facilitates entry into and transfer from Lake Superior College
- offers flexible use of the college facilities, personnel, and services

General Information



About LSC

On July 1, 1995, Duluth's Community and Technical Colleges merged to create a new institution, Lake Superior College. In the years since it was established, LSC has grown substantially, both in terms of courses and programs offered and student enrollment. In the most recent academic year for which statistics are available (2002-03) LSC served more than 8,100 students and generated 3,100 full year equivalents. LSC offers a wide range of programs and course options including technical programs, transfer programs, continuing education opportunities, customized training courses, and apprenticeship training.

Accreditation

Lake Superior College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. More information on the accreditation process is available directly from:

North Central Association of Colleges & Schools
Higher Learning Commission
30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
(312) 263-0456 or 800-621-7440

In December, 2002 the Higher Learning Commission authorized LSC to offer its degree programs online.

Several LSC programs have received accreditation from professional associations, including the following:

- Dental Hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements."
- The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment (AAMA-E).
- Medical Laboratory Technician, accredited by the National Accreditation Agency of Clinical Laboratory Science
- Occupational Therapy Assistant, accredited by the Accreditation Council for Occupational Therapy Education

- Physical Therapist Assistant, accredited by the Commission on Accreditation in Physical Therapy Education
- Professional Nursing (RN), accredited by the Minnesota Board of Nursing
- Practical Nursing, accredited by the Minnesota Board of Nursing
- Radiologic Technology, accredited by the Joint Review Committee on Education in Radiologic Technology
- Respiratory Care Practitioner, accredited by the Committee on Allied Health Education and Accreditation, upon the recommendation of the Joint Review Committee for Respiratory Therapy Education

Lake Superior College Foundation

The recently-formed Lake Superior College Foundation is a charitable, nonprofit corporation established for the sole purpose of supporting the college. The Board of Directors is composed of volunteer community leaders, providing direction and sound fiscal management of Foundation assets.

Staff and Faculty

LSC students quickly discover that the faculty and staff of the college are friendly, helpful, and concerned about students. Each member of the faculty brings a wealth of education and experience to LSC's classrooms and labs. These dedicated professionals are eager to help students meet their goals. Whether you are planning to transfer to a 4-year college or preparing for a new career, LSC staff members are ready to help. In fact, everyone at LSC — faculty, administration, maintenance, and clerical staff — is committed to student success!

For a listing of faculty and administration credentials, see pages 171-175 of this publication.

Affirmative Action/Equal Opportunity

Minnesota's colleges and universities have accepted special roles and responsibilities in fostering diversity in our society. We are dedicated to the search for knowledge and the rights of every individual in our learning communities to pursue that search with freedom, dignity, and security, regardless 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. Representing all sectors of higher education in Minnesota, we publicly declare our intention to:

- continue the development of multicultural learning communities that will not tolerate acts of harassment
- establish, communicate, and enforce standards of behavior for students, staff, and faculty that uphold our academic values and our legal obligations
- promote the acceptance and respect for individuals in an atmosphere of caring for others.

Lake Superior College is part of the Minnesota State Colleges and Universities system (MnSCU), the largest provider of higher education in the state of Minnesota. The system includes state universities, community colleges, technical colleges and comprehensive community and technical colleges in 46 Minnesota communities. Minnesota State Colleges and Universities serve approximately 145,000 students.



LSC Students

Approximately 58% of students are female and 42% male. While LSC is primarily a commuter college with nearly 80% of students coming from a 50-mile radius, some programs (e.g., health occupations, fire fighting) do attract students regionally, nationally, and internationally. The availability of internet-based courses and programs has generated a growing number of online students who reside in distant locations.

The average age of students during the fall term of 2002 was 24.5, however the majority of students were 24 or younger.

Student Life

Lake Superior College provides a student life program that enhances the opportunities for students to become involved in meaningful activities that compliment the academic programs and services to the college.

Student Life Center

The purpose of the Student Life Center is to meet the needs of all the students of Lake Superior College. The Center maintains and creates programs that enhance the student's educational, cultural, recreational, and social experiences while attending LSC. The Center also provides leadership workshops throughout the academic year. The facility and services provided by the Center are open to the entire LSC community. The Student Life program also sponsors intramural sports programs. In recent years activities have included flag football, volleyball, softball, and basketball.

Student Activities

Lake Superior College provides opportunities for student growth through extracurricular activities. These activities enrich higher education for students by providing both educational and social events. By becoming involved in activities such as academic related events, cultural diversity programs, health and fitness programs, campus clubs, student government, student publications and theater, students will share in the ownership of such programs and experience a positive connection to LSC. Although these activities provide many avenues for student growth, the decision to participate is based on personal desire.

Student Organizations

All Nations/United-Multicultural: This organization works to develop positive community involvement by providing academic, social, and professional support and advocacy on and off campus.

American Society of Certified Engineering Technicians (ASCET)

ASCET is a student chapter of this national organization. The goals include promoting dignity of work, professionalism, and community involvement. In addition, members of the club are eligible to take a national certification examination.

Art/Ceramics Club

The purpose of the LSC Art Club is to promote the arts, in any form, to the students of LSC and to the community in which they live.

Auto Services Technology Club

This club serves students enrolled in the auto technology program.



Aviation Club

This club serves students interested in aviation. Activities include participation in fly-ins and air shows.

Broadcasting Club

This club serves students enrolled in the broadcasting program.

Business Professionals of America

The purpose of the BPA Club is to prepare students for the business workforce through the advancement of leadership, citizenship, academic, and technological skills. By integrating its programs into the business classroom, BPA builds leadership, professionalism, poise, dependability, patriotism, and competency for business students.

Campus Ambassadors

This organization is dedicated to assisting new and prospective students get acclimated to LSC campus life. Members are selected from nominations sought from the campus community. Campus Ambassadors hold high profile positions and gain wide knowledge of the LSC campus and specific leadership skills. Ambassadors also help with new student assessments, registration and orientations sessions.

Computer Programers Club

This club serves students interested in computer careers.

Delta Epsilon Chi (DEX) is a national organization for college students preparing for careers in marketing, merchandising, or management. Activities promoted by DEX integrate with and enhance the student's college curriculum. In addition, the organization's close ties with the business community provide both opportunities for students and an appreciation of the American free enterprise system.

Environmental Club

The purpose of this club is to create awareness and promote resource conservation and sustainability on the LSC campus.

Fire Technology Club

This organization is for students enrolled in the fire technology program.

Intersarsity Christian Fellowship

This organization serves the Christian community of LSC.

License Practical Nursing Club

The LPN Club serves those students that are enrolled in the LPN program.

Machine Tool Club

This club serves students enrolled in the machine technology program.

Manufacturing Technology Partnership Club

This club serves those interested in manufacturing and design.

Nontrad Club

This club provides support and networking to women and men in nontraditional programs.

Nursing Club

The Nursing Club provides the second-year Associate Degree nursing students the opportunity to socialize with each other, to share concerns of educational advancement, and to develop career goals.

Phi Theta Kappa

Phi Theta Kappa is the National Honor Society for students in two-year colleges. Its objective is to bestow recognition on students who have distinguished themselves in their academic performance. This society also gives students an opportunity for the development of leadership skills through service to the college and community.

Physical Therapist Assistant Club

The purposes of this club are to promote the role of students in the physical therapy profession, to identify and respond to issues, to promote the interaction of students in physical therapy and physical therapist assistant programs, to develop a network of individuals with similar concerns and interests, and to provide for the exchange of information concerning physical therapy issues.

Radiological Tech: serves the Radiological Tech students at LSC.

Respiratory Care Club

This club serves those students in the respiratory care program.

Scuba Club

The Scuba Club serves students interested in scuba diving.

Students Against War

This organization is for students with the interest in maintaining a peaceful environment throughout the world.

Student American Dental Hygiene Association The purpose of this group is to increase participation in activities related to the dental/dental hygiene professions.

Students Helping Students

This organization is for students with the desire to aid fellow students in their academic journey by providing resources to students from students.

Student Senate The student senate is the official representative student government of Lake Superior College. It consists of officers and representatives who are elected by LSC students.

Surgical Tech: serves students enrolled in surgical tech.

Veteran's Club: supports student veterans of the armed forces.

Facilities

Most of Lake Superior College's programs and services are located on the Trinity Road campus, overlooking Enger Park and the western part of the Duluth-Superior harbor. An expansion completed in 1996 has won national architecture awards for its unique and aesthetically-appealing design. The Emergency Response Training Center, home to LSC's fire-fighting program, is on a site at the southwest end of Duluth. The college also operates a computer flex lab in downtown Duluth, and a flight center at the Duluth International Airport.

Main Campus
2101 Trinity Road
Duluth, MN 55811
(218) 733-7600 or toll free
1-800-432-2884

Emergency Response Training Center
Truck Training Center
11501 Highway 23
Duluth, MN 55808
(218) 626-1074

LCS Technology Center
11 East Superior Street, Suite 125
Duluth, MN 55802
(218) 723-2393

Professional Pilot Training Center
4425 Approach Rd.
Duluth, MN 55811
(218) 723-4880

A Great Place to Learn

Lake Superior College is located in one of the Midwest's most unique and beautiful cities, Duluth, Minnesota. The city is a regional center for health care, transportation, retail sales, education, and tourism. In fact, the city attracts more than three million visitors each year. Duluth offers a wide range of recreational and cultural opportunities. Sight-seeing, boating, skiing, music festivals, and sporting events are just a few of the popular activities for students.

Services to Students

Admissions

Admissions is located in the Enrollment Services Center and provides services pertaining to admission to Lake Superior College. These services include processing of applications to the college and programs offered at the college, reciprocity forms, international student applications, high school and postsecondary options enrollments, and transcripts received from previous institutions. The Admissions Office also provides information for prospective students and conducts tours of the campus. For information, call (218) 733-7601 or 1-800-432-2884.

Center of Student Development

The Center of Student Development provides services to help meet the educational and support needs of LSC students by providing advising on personal and college issues, information and referral to counseling, community resources, seminars/workshops, peer support, networking, and information regarding careers in non-traditional occupations.

Assessment/Placement Testing

Assessment/placement tests are given in mathematics, English composition, and reading to help new students identify their current skills in these areas and to determine appropriate course placements. Incoming students are able to make an appointment through the Counseling and Career Center.

Bookstore

The Lake Superior College Bookstore is one of several college auxiliary services available for students, faculty, and staff. Bookstore merchandise includes new and used textbooks, backpacks, school and art supplies, imprinted clothing, and required specialty tools and equipment for certain occupational classes (e.g., safety glasses, financial calculators, stethoscopes, etc.) Sales are cash, check, Visa, American Express, or Mastercard, or in some cases may be charged against approved financial aid. Book returns will be accepted through the tenth day of each semester (with appropriate receipt). A college book wholesaler conducts a book buy-back during finals week of each semester.

Bulletin Boards

Bulletin boards and student organization posting areas are located throughout the college for students, clubs, and college use. Flyers may be posted by students in designated posting areas if approval is obtained through the Student Life Center. Other displays must be approved by the Director of Public Information or an LSC administrator.

Campus Security

To report criminal activities, unsafe situations, and emergencies, or request assistance or a security escort, contact:

Campus Security Office, W1648, 733-1080 or 590-8667.

For detailed information about campus security and crime statistics, request a copy of the annual campus Crime Awareness and Campus Security Report through the Enrollment Services Center.



Child Care

The college provides a contracted child care service for children ages 33 months to eight years. Students who would like to enroll their children in the Creation Station are advised to contact the center for an application (733-7647). Enrollment is limited. Various types of financial aid may be available for child care expenses. Check with the Enrollment Services Center for details regarding eligibility.

Counseling, Advising, and Career Center

Counselors are available to assist students in career planning, academic advising, retention, and family and personal relationship concerns. Additionally, the Counseling, Advising and Career Center contains career and life planning materials, information about a variety of occupations, as well as access to a variety of career assessment instruments. University/college information is available to assist transfer students. Students can meet with counselors for help in making career and transfer decisions. Counselors are available at the Counseling, Advising and Career Center by appointment. Hours are: Monday-Thursday, 7:30 a.m.-6 p.m. Friday, 7:30 a.m.-4 p.m.

Advising -Advisement services are offered to ensure that students can receive ongoing academic advice and counseling regarding satisfactory academic and career progress. Advisors provide academic, transfer, and career counseling. Students will be assigned an academic advisor from their chosen program area. Counselors and advisors are available to assist students in creating educational plans. Careful planning is essential when assisting students in completion of a diploma or degree, transfer to a four-year college, and/or enrolling in courses for enrichment.



Food Service

Food service is available when classes are in session during fall and spring semesters. Snacks and convenience foods are available from a variety of vending machines.

Disability Services

Lake Superior College provides access to programs, services, and activities to qualified students with documented disabilities, as required by law. When an individual requests an accommodation, the college will require the individual to provide documentation of the disability. The college's commitment is to remove educational, programmatic, and attitudinal barriers, allowing students with disabilities equal access and opportunity to participate fully in all educational programs and activities. Reasonable accommodations/services, based on the individual needs of the student, may include, but are not limited to; early registration, note taking, test-taking accommodations, and the provision of sign language interpreters. Additionally, handicapped parking is available in LSC parking lots. Individual with disabilities may request reasonable accommodations or information by contacting Georgia Robillard, Disabilities Services Coordinator, Main Campus, Room #E2114, at (218) 733-7650, 722-6893/TTY, or g.robillard@lsc.mnscu.edu.

Escort Service

The LSC Campus Security Office provides campus escort services. The Security Office is open during the following hours:

Monday - Thursday: 7 a.m. - 10 p.m.

Friday: 7 a.m. - 4 p.m.

Saturday: 9 a.m. - 3 p.m.

Financial Aid

Financial Aid services are located in the Enrollment Services Center. Staff are available to assist students with the process of applying for, and receiving, state and federal financial aid as well as scholarships. This office also assists veterans with the process of applying for veterans educational benefits. For additional information about financial aid, see page 13.

Health & Accident Insurance

A student accident and health insurance plan is available to students through an approved MnSCU group plan. Student health insurance is made available to assist those students not covered under family and/or employer plans. Some courses and/or activities may require health and/or liability insurance and all international students are required to carry accident and health insurance.

Health Services

Treatment is available for minor illness and injury. Referrals will be made for further examination and treatment of more serious conditions. Phone: 725-7713 or 733-1092.

Housing

LSC does not own or operate housing or apartment facilities for students living away from home. There are several apartment buildings located near the campus; however, the college does not inspect or certify such housing, nor will it assume responsibility for problems arising from private housing. Notices of available housing and apartment vacancies are listed on bulletin boards located near the commons.

Identification Cards

Student identification cards are available from the LSC Student Life Office at the beginning of each semester. These are used for identification and admission to college functions.

Language Proficiency

New students whose native language is not English are required to take the Language Proficiency Tests. The results of these tests will help students decide on the best English language course for them. Testing times are designated, and information is available from the Counseling Center.

The Learning Center

Academic services such as tutoring and computer-assisted instruction are provided by faculty, professional tutors, and peer tutors. The Center provides supplemental tutoring in such areas as math, spelling, reading, study skills, science, writing, and English as a Second Language. It is located in the library.

Library

The Harold P. Erickson Library at LSC provides access to electronic information systems, print materials (books, periodicals, etc.) and audio, visual, and computer resources. The electronic information system includes PALS (State Library Information Network), on-line CD-ROM data bases, and Internet resources. In addition, the library provides students with access to computers for word processing and other computer applications. Computers equipped with assistive technologies are available for students with diverse needs.

Instructional support services for students are also located in the library. A variety of materials and services are provided for students who wish to supplement their formal course work, brush up on prerequisites, or study independently. Services to students include tutoring for all academic areas, computer tutorials, as well as self-study and multimedia materials. Group study sessions can also be arranged.

Lockers

Lockers are available in various areas throughout the college. Some are organized and administered by the Student Senate; some courses or programs may also provide lockers. Contact the Student Life Office for more information.

Lost and Found

Inquiries pertaining to lost and found articles should be made at the college information desk area. The college is not responsible for lost articles, and students are cautioned not to leave valuables unattended.

Orientation/Registration

Orientation/registration sessions are provided for new students each semester to assist them in getting acquainted with the college, its policies, various services, organizations, financial aid, program planning, course selection, and requirements at LSC. The sessions cover registration, program requirements, and career and transfer advising. Placement testing for reading, writing, and mathematics are required prior to orientation. Time is provided for individual consultations.

Placement Services

The Placement Center offers a wide range of services to students and alumni, including assistance with resumes and other job-related correspondence, mock interviewing, training on Internet job seeking, an up-to-date library of job search/career materials, and long-distance phone and fax access for job seeking. The Placement Center also sponsors a Job Fair each April to provide in and out of area employment opportunities to students and alumni of the college. A Job Board is located outside the Center advertising part-time/full-time jobs, and postings that are directly related to programs are mailed to graduates. Placement is also responsible for all Work Study positions on and off campus.

Student Records

Student Records are located in the Enrollment Services Center, which provides assistance with and retention of students' academic records, including credit transfer, transcripts, and graduation.

Crime Awareness and Campus Security

Pursuant to the Student Right to Know and Campus Security Act, LSC monitors criminal activity and publishes a campus security report each year. The report includes current policies and procedures relating to campus security. The College notifies current and prospective students and employees of its availability annually. LSC will provide a copy of the report to any interested party upon request. Contact the Enrollment Services Center for information.

Student Support Services (SSS)

SSS provides support for students with disabilities, low-income, and/or first generation college students who intend to complete a career program at LSC or plan to transfer into a bachelor degree program. SSS provides support for personal, academic, and career assistance such as tutoring, supplemental instruction, study

skills courses, counseling, career exploration, support groups, workshops and seminars, and exposure to diverse cultural activities.

The SSS Office is located in the Counseling and Career Center.

Transfer Preparation

It is important for students to know whether the courses for which they register reflect the latest degree requirements and will transfer to a specific college as a required course, as an elective, or not at all. To obtain this information, contact a transfer counselor. Representatives from four-year colleges and universities are on campus at various times throughout the year.

Transportation

The Duluth Transit Authority (DTA) provides regular bus service to and from the main campus. Check at the LSC reception area for scheduled times and cost. Passes may be purchased from the LSC Student Payment Office.

Veterans Educational Benefits

Lake Superior College is a Veterans Administration-approved school. The Enrollment Services Center is responsible for certifying a veteran's school enrollment and transmitting that information to the Veterans Administration.

Wellness Center

The LSC Wellness Center is a state-of-the-art facility serving the fitness needs of all students, faculty, and staff on campus. It includes three specific workout areas:

- 1) Exercise/Fitness Suite (Rm. E1104). This attractive workout room includes a 1300 square-foot area equipped with both aerobic exercise equipment and selectorized weight training machines. Treadmills, steppers, rowers, and exercise bikes complement a full circuit of OEI/Cyberex resistance machines.
- 2) Free-Weight Exercise Room (Rm. E1118). A fully equipped weight room for the more serious lifter. This room includes a double set of hexhead dumbbells, olympic bars and plates as well as a variety of specialty benches for working those hard-to-get-at body areas.
- 3) Multi-Purpose Room (Rm. 1114). This area serves many different groups and functions. It is a carpeted and mirrored room with a wall-mounted projection screen and TV/VCR unit that allows lecture type presentations or easily converts to a matted floor facility which lends itself to a variety of physical education activities.

First time participants are required to attend an orientation session and purchase a participant pass for each academic term. Membership costs are \$25/semester for students and \$35/semester for faculty/staff. Yearly memberships are \$50 and \$70, respectively, with summer sessions included free of charge. Passes may be purchased at the Wellness Center during regular hours of operation. Please call 725-7784 for Wellness Center information.

Admissions: General Admissions Procedures

Applications are accepted for fall, spring, and summer terms. Students may apply and register for classes through the first five class days of the fall and spring semesters. However, early application and registration are recommended.

Lake Superior College will admit students who:

- Have a high school diploma or the equivalent, GED (General Equivalency Diploma)
- Are currently in high school and meet Post-Secondary Enrollment Options Program or concurrent enrollment criteria, OR
- Meet the ability to benefit standards by achieving satisfactory scores on the assessment test.

Admission to LSC does not automatically qualify a student for all courses and curricula of the college; some of the programs and/or course offerings have special prerequisites. Academic, fiscal, and facilities considerations may also limit admission to particular programs.

Freshmen

Students with no prior college credit will apply as freshmen to Lake Superior College.

Freshmen applicants must submit:

- A completed standard MNSCU application form.
- Non-refundable application fee of \$20.
- High School transcript or GED scores (if obtained less than 5 years ago).
- Documentation of Immunization records must be submitted if born in 1957 or later.
- Students must arrange to take the reading computerized placement test to determine college level placement in English and mathematics through the New Student Assessment Program at LSC, after they have been accepted.

Transfer

Applicants who have earned credit at other post-secondary education institutions will apply as a transfer student to Lake Superior College.

Transfer applicants must submit:

- A completed Lake Superior College or standard MNSCU application form.
- Non-refundable application fee of \$20.
- Official copies of transcripts from each post-secondary institution attended.
- A copy of final high school transcript or GED scores (if obtained less than five years ago).
- Documentation of immunization records must be submitted if born in 1957 or later.
- Students must arrange to take the reading computerized placement test to determine college level placement in English and mathematics through the New Student Assessment Program at LSC, unless they have successfully completed a freshman composition, intensive reading and a college-level mathematics course at another post-secondary institution.



International Students

Students (new or transfer) who are not permanent residents or citizens of the United States will be considered for admissions after submitting the following:

- Completed standard MNSCU application form.
- Non-refundable \$20 application fee in U.S. dollars.
- High school transcript, (must be equivalent to a United States high school transcript, translated into English and certified as a true translation).
- Proof of English proficiency (testing is required for all applicants whose native language is not English). Acceptable documentation of English proficiency includes:
 - a. TOEFL (Test of English as a Foreign Language) score of 500 or more (paper-pencil test) or a score of 173 on computer.
 - b. Michigan Test score of 75 or more
 - c. A resident of an English speaking country or otherwise proficient in the use of the English language.
 - d. English Program for International Students at the University of Minnesota recommendation: "exempt from further ESL ready for full academic load."
- Affidavit of Financial Support Form
- F-1 visa issued by the U.S. Consulate or Immigration and Naturalization Service.
- Proof of health insurance coverage. All international students and visiting scholars engaged in educational activities are required to purchase the Minnesota State Colleges & Universities international student accident and illness insurance plan, unless they can provide written verification that their government or sponsoring agency accepts full responsibility for any medical claims that might occur.

Postsecondary Enrollment Options Act (PSEO)

The purpose of the PSEO program is to promote rigorous educational pursuits and to provide a wider variety of options for Minnesota's 11th and 12th grade high school students. In order to enroll at LSC, students must discuss the program with their high school counselor and then contact the LSC Enrollment Services Center. These programs are not available during the summer sessions.

Application Deadlines:

- Fall - June 10
- Spring - December 10

PSEO Eligibility:

- High school seniors may be considered for enrollment if the high school certifies the students as being at or above the 50th percentile in class rank. If the high school does not compute rank, a high school senior may be admitted on the basis of an overall GPA of 2.5 or greater.
- High school juniors may be considered for enrollment, if the high school certifies the student as being at or above the 66th percentile in class rank. If the high school does not compute rank, a high school junior may be admitted on the basis of an overall GPA of 3.0 or greater.
- PSEO students must meet college level placement scores in reading, English and math through the computerized placement test. If the test scores indicate a lack of preparation for college-level work, PSEO enrollment will not be approved.

PSEO Application Procedure: Students must complete and submit the following:

- Standard MNSCU application form.
- PSEO Guidance Counselor or Home School Parent Form.
- State PSEO Notice of Student Registration Form. There is a section to be completed by the student and parent, and a section to be completed by the high school or home school parent.
- An official copy of the student's high school transcript.
- Students must arrange to take the computerized placement test to determine college level placement in reading, English and mathematics.

Ability to Benefit

Students who do not have a GED or high school diploma may qualify for admissions under the Ability to Benefit Policy. To qualify, students must take the computerized placement test and achieve satisfactory scores, as set by the U.S. Department of Education.

Campus Tours

Visitors are always welcome at Lake Superior College! Call (218)-733-7601 or 1-800-432-2884 to arrange your campus tour.

Appointments with the Enrollment

Services or Counseling and Career Center staff are available upon request.

To ensure that you get the most out of your visit to Lake Superior College, we ask that you please schedule the visit at least 48 hours in advance.

Financial Aid

What is Financial Aid?

The student (and student's parents for dependent students) must make a realistic effort to contribute toward meeting college expenses. Financial aid is intended to supplement the student's contribution to her (his) education. Financial aid may be federal or state money which assists students in paying for their postsecondary education.

How Do I Apply?

The financial aid "year" begins on July 1 and ends the next June 30. You are required to complete application materials for each

financial aid year that you will be in college. You begin the process of applying for aid by completing the Free Application for Federal Student Aid (FAFSA) or the Renewal Application (REAPP). The FAFSA application packet is available in the Enrollment Services Center. The REAPP is mailed to you by the Central Processor, if you had a "clean" financial aid application the previous year. Completion of this application will enable you to apply for several different types of aid.

APPLY EARLY. DO NOT WAIT UNTIL YOU START COLLEGE. Students who have a completed aid application on file with the Lake Superior College Enrollment Services Center by July 1, will receive priority consideration. After this date, applications are processed on a "first come, first served" basis.

How is Eligibility for Financial Aid Determined?

Your eligibility for federal (Pell) and state (if you are a Minnesota resident) grants is determined after your FAFSA or REAPP has been processed. You will be notified about your eligibility for these grants. In addition to the Pell and state grants, students who have remaining "financial need" may be eligible to receive other types of financial aid including work study, loans, or agency funding. "Financial need" is the difference between the "cost of education" and the "expected family contribution." The "cost of education" includes "direct" and "indirect" costs. "Direct" costs include tuition, books, tools, supplies, and other college fees. "Indirect" costs include room, board, transportation, and other personal expenses.

The "expected family contribution" is determined once you have mailed your FAFSA. If you are independent, your needs analysis will include your (and your spouse's, if married) income, assets, savings, etc. If you are dependent, the needs analysis will include your information and your parent's information. For the 2001-2002 school year an independent student is a student who meets at least one of the following criteria:

1. Born before January 1, 1978.
2. An orphan or ward of the court (or were a ward of the court until age 18).
3. A veteran of the Armed Forces of the United States.
4. A student with legal dependents other than a spouse.
5. A married student.
6. A graduate or professional student (beyond a bachelor's degree).
7. Be judged independent by the Financial Aid Office based on documented unusual circumstances.

What If I Have Questions About Financial Aid?

Additional information is available in the Student Handbook. Please contact:

Enrollment Services Center
Lake Superior College
2101 Trinity Road, Duluth, MN 55811-3399
(218) 733-7601 or 1-800-432-2884 ext. 7601
www.lsc.mnscu.edu

Information regarding financial aid disbursements, application deadlines, available scholarship programs, and miscellaneous financial aid information is available in the Enrollment Services Center.

Tuition and Fees

For the current tuition rate, please refer to the LSC website at www.lsc.mnscu.edu or contact the LSC Student Payment Office. **Please note:** Tuition and fees are subject to change annually. Please check the web site for the most current information.

Tuition Payment

Tuition payment is due prior to the first day of classes each term to avoid late fees (exception, see Deferred Payment).

Deferred Payment

Enrollment is completed only after students have paid their tuition/fees in full. Exceptions to this requirement will be granted to non-sponsored students and/or any person whose fees will be paid in full by a governing agency or established organization with payment to be made to the college. The Student Payment Office must be notified so that payment can be deferred.

Application Fee

A nonrefundable fee of \$20 is charged to each new student applying for admission to a certificate, diploma, or degree program.

Technology Fee

A technology fee of \$8 per credit is charged to each student.

Parking Fee

A parking fee equal to \$2 per credit + tax is charged.

Special Fees

Fees such as liability insurance, physical education course fees, or test fees may be assessed.

Experiential Learning Credit Fee

A fee equal to 40% of tuition.

Credit by Exam Fee

A fee equal to 40% of tuition.

Books and Supplies

Textbooks and general supplies are available in the Bookstore, as well as tools and equipment for specific occupational programs.

Deposit for Special Programs

Some programs require a nonrefundable deposit that will be credited toward tuition once a student is enrolled in the program.

State Student Organization Fees

Each term, students are required to pay a nonrefundable fee of 30¢ per credit to support the state student organization.

Student Activity Fee

A nonrefundable student life fee of \$4.35 per credit up to 16 credits, is charged to each student to support student clubs and activities.

Health Fee

Each term, students are required to pay a nonrefundable fee of \$.65 per credit to support the college's health center.

Graduation Fee

Each student attending graduating is charged a \$10 graduation fee.

Transcript Fee

LSC will provide one diploma and transcript without charge to each student upon graduation. A fee is charged for additional official (\$5) and unofficial transcripts (\$3).

Note: Fees are subject to change annually.

Reciprocity Agreements

By completing the "Reciprocity Program Application for Resident Fee Status" and being approved for reciprocity resident status, North Dakota, South Dakota, Wisconsin, and Manitoba residents may attend public institutions in Minnesota at reduced tuition. Admission requirements are identical to those for Minnesota residents. Potential out-of-state students interested in attending LSC can obtain applications from the Enrollment Services Center or contact:

North Dakota Board of Higher Education
State Capitol Bldg.
600 E. Blvd. Ave.
Bismarck, ND 58505-0230
(701) 328-4113

South Dakota Board of Regents Reciprocity Program
Box 2201 University Station
Brookings, SD 57007-1198
(605) 688-4493

Wisconsin Higher Education Aids Board
Reciprocity Program
Box 7885
Madison, WI 53707-7885
(608) 267-2209

Midwest Student Exchange Program (MSEP)

The Midwest Student Exchange Program enables residents of Kansas, Michigan, Minnesota, Missouri, and Nebraska to enroll in specific programs at a reduced tuition rate. Tuition and eligibility are determined by MSEP. Potential out-of-state students interested in attending LSC can obtain information from the Admissions Office or contact:

Midwest Student Exchange Program
1300 South Second Street, Suite 130
Minneapolis, MN 55454-1015
Phone: (612) 626-8288
Fax: (612) 626-8290
E-mail: mhec@tc.umn.edu

More information is available on the World Wide Web at:
<http://www.umn.edu/mhec/>

Refunds

For information about refunds of tuition and fees, see the policies on page 166.

Lake Superior College General Education Mission Statement

Philosophy

Lake Superior College affirms its commitment to offering a broad based, coherent foundation of general education. Our graduates leave LSC with a core of general knowledge, skills, and the motivation to continue learning. Lake Superior College graduates are prepared to live fully and responsibly, adapting to a changing, diverse, and global society. We provide exceptional teaching and learning opportunities through which students gain knowledge, understanding and experience in a coherent program which facilitates the development of skills in the following areas:

- Communication Skills
- Information Technology Skills
- Critical Thinking Skills
- Self-Development Skills
- Citizenship Skills
- Computation Skills

Certified programs of 20 to 29 credits will be required to address the skill areas of Communications, Interaction, and Critical Thinking.

Diploma programs of 30 to 45 credits must address the skill areas of Communications, Interaction, Critical Thinking, and one additional area of choice according to subject matter (to be determined by program faculty and included in program literature).

Diploma programs of 46+ credits, and all degree programs must include all the defined College-Wide Outcome skill areas.

Validation of achievement must take place prior to graduation according to the assessment plan. Validation will be a process of data collection, using the results to make program/course improvements, which will increase student achievement of the outcomes.



Lake Superior College College-Wide Outcomes

College-wide Outcomes are the six general standards that serve as the foundation for education at LSC.

- 1. Information Technology- The student will be able to:**
 - 1.1 Demonstrate the ability to access information using computers
 - 1.2 Demonstrate the ability to produce computer-generated documents
- 2. Communication- The student will be able to:**
 - 2.1 Demonstrate the ability to interact collaboratively within a group to complete an assigned task
 - 2.2 Describe how human diversity affects communication
 - 2.3 Deliver a clear, well-organized verbal presentation
 - 2.4 Compose a clear, well-organized document that is professional in appearance and content
- 3. Self-development- The student will be able to:**
 - 3.1 Set personal and professional goals and develop strategies to reach them
 - 3.2 Describe techniques to attain realistic levels of personal health and wellness
 - 3.3 Describe the benefits of life-long learning
- 4. Critical Thinking- The student will be able to:**
 - 4.1 Gather pertinent factual information and apply it to a given problem
 - 4.2 Explore possible assumptions, interpretations, or perspectives related to solving a problem
 - 4.3 Analyze the logical connections among the facts, goals, and implicit assumptions relative to the situation
 - 4.4 Articulate the values affecting decisions, interpretations, and analyses made by ourselves and others
- 5. Computational Skills- The student will be able to:**
 - 5.1 Identify and extract relevant numerical data from a problem / situation
 - 5.2 Obtain correct mathematical results and describe them
- 6. Citizenship- The student will be able to:**
 - 6.1 Demonstrate involvement in the community at large
 - 6.2 Describe an issue of concern to the community at large and develop an informed response

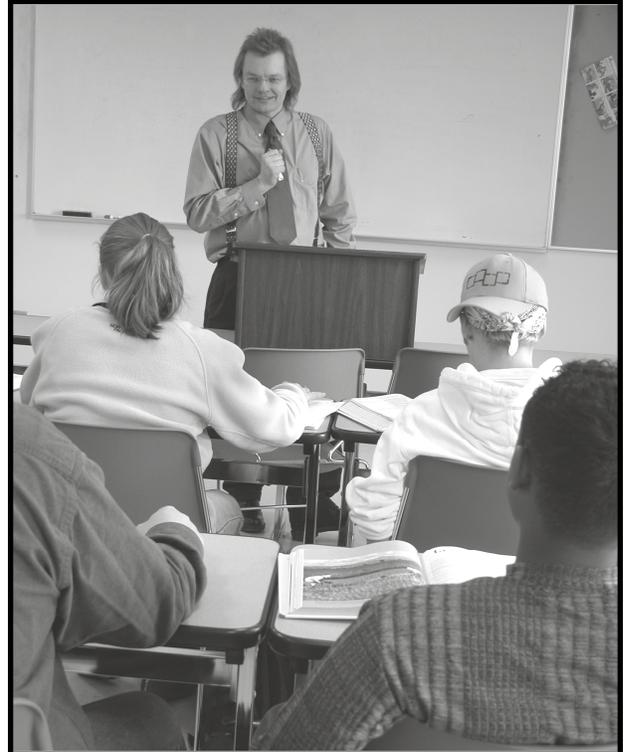
Lake Superior College Philosophy of Assessment

Lake Superior College is committed to quality learning experiences for its students and a cycle of continuous improvement. By continually assessing the educational environment at LSC, we strive to maintain the high quality of instruction in all our curricula.

As a student, you may be asked to participate in a variety of assessment activities, the results of which will be used to improve programming, services and learning. The assessment of learning will occur at selected intervals throughout your education and annual surveys will be conducted to assess satisfaction with the LSC experience.

Academic Information

- Programs for Transfer
- Technical Programs
- Course Descriptions



Curriculum is subject to change. In order to maintain academic excellence, LSC's courses and programs are reviewed and revised on an ongoing basis. See your advisor for current program planners or check the LSC web site for updates.

Programs for Transfer

Lake Superior College offers the following options to students who intend to transfer to a baccalaureate program:

Associate in Arts Degree

An Associate in Arts degree will be awarded to a student completing at least sixty semester credits in selected courses numbered 1000 or above with a minimum grade point average of 2.00. Courses must fulfill the categories of: Communication, Science/Mathematics, Social and Behavioral Sciences, Humanities, and two credits of Physical Education, as outlined on the following pages or current program planner. Forty of the sixty credits must fulfill the Minnesota Transfer Curriculum requirements. The remainder of the credits will count as electives.

Minnesota Transfer Curriculum

The Minnesota Transfer Curriculum is a package of 40 semester credits that will be accepted for transfer by all Minnesota Community Colleges, State Universities, and the University of Minnesota, as well as many private colleges.

Associate in Science Degree

The Associate in Science degree presents two different tracks: Professional and Pre-professional.

- 1) Professional: Lake Superior College currently offers this degree in Radiology and Registered Nursing. Please refer to the Radiologic Technology and Registered Nursing programs for the description of the professional programs.
- 2) Pre-Professional: The Associate in Science degree is awarded to students in pre-professional programs or with majors which have strong emphasis in mathematics and or science. Students who choose this option instead of an AA will take 26 credits in math and science courses in addition to the AA requirements on the following pages.

Both the professional and the pre-professional degrees are intended to be transferred to baccalaureate programs.

Admission to any institution is an issue separate from transfer. All transfer students must meet admission requirements, including a certain grade point average, for the institution or programs to which they transfer. We encourage you to contact the college to which you wish to transfer for all pertinent information.

Courses for transfer are taught in the following disciplines:

- Accounting
- Anthropology
- Art
- Biology
- Business
- Chemistry
- Computer Science
- Economics
- Education
- English
- Environmental Science
- French
- Geography
- Geology
- History
- Humanities
- Mass Communication
- Mathematics
- Music
- Philosophy
- Physical Education
- Physics
- Political Science
- Psychology
- Sociology
- Spanish
- Speech
- Statistics
- Theater

Minnesota Transfer Curriculum and Associate in Arts Degree Requirements 2003-2005

AA	>	60 CREDITS TOTAL Areas 1 - 6 and PE: Minimum requirements in parentheses. 40 credits minimum required in Areas 1 - 10.
AS	>	60-64 CREDITS TOTAL Areas 1 - 6: Minimum requirements in parentheses (must total 30 credits).
AAS	>	18-20 CREDITS TOTAL 3 credits minimum required in each Area: 1, 3 or 4, 5A or 5B, and 6.
MNTC	>	40 CREDITS TOTAL A minimum of 3 credits per Goal Areas 1 - 10.

Note: A listed course may meet two (2) competency areas, but credits will be counted only once.

* Denotes literature course

2.0 minimum GPA required for MNTC and all above-stated degrees. May include accepted transfer credits.

PART I

GOAL 1 - COMMUNICATION (CO): (9 Credits Minimum)

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

ENGL 1106	College Composition I (Required)	(3 credits)
ENGL 1109	College Composition II (Required for AA)	(3 credits)(HU)
AND FOR AA - ONE OF THE FOLLOWING		
SPCH 1100	Fundamentals of Human Communication	(3 credits)
SPCH 1105	Interpersonal Communication	(3 credits)
SPCH 1110	Methods of Public Speaking	(3 credits)
SPCH 1115	Intercultural Communication	(3 credits)(DI)

GOAL 2 - CRITICALTHINKING (CT): Requirements met by 40 credit MTC requirement.

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

Infused Across the Minnesota Transfer Curriculum Courses.

GOAL 3 -NATURAL SCIENCES (NS): (6 Credits Minimum)
(Select two courses from the following list of laboratory science courses.)

Goal: To improve a student's understanding of natural science principles and of the methods of scientific inquiry (i.e., the ways in which scientists investigate natural science phenomena.) As a basis for lifelong learning, students need to know the vocabulary of science, and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance in their lives and to understand the value of a scientific perspective.

BIOL 1001	Human Body in Health and Disease	(5 credits)
BIOL 1105	Biology of Women	(3 credits)(DI)
BIOL 1110	Minnesota's Natural Heritage	(4 credits)(EN)
BIOL 1120	Principles of General Biology	(5 credits)(EN)
BIOL 1130	General Biology of Organisms	(5 credits)(EN)
BIOL 1140	Human Anatomy and Physiology I	(4 credits)
BIOL 1141	Human Anatomy and Physiology II	(4 credits)
BIOL 1150	Human Anatomy	(5 credits)
BIOL 1160	Human Physiology	(4 credits)
BIOL 1170	Microbiology	(3 credits)

Codes in parenthesis indicate that the identified course also meets the graduation requirements in another category:

CO	=	Communication
CT	=	Critical Thinking
DI	=	Human Diversity
EN	=	People and the Environment
ET	=	Ethics and Civic Responsibility
GL	=	Global Perspective
HI	=	History
HU	=	Humanities and Fine Arts
MA	=	Mathematical/Logical Reasoning
NS	=	Natural Sciences
SO	=	Social and Behavioral Sciences



BIOL 2160	Advanced Physiology	(2 credits)
BIOL 2200	General Ecology	(4 credits)(EN)
BIOL 2205	Limnology	(3 credits)(EN)
BIOL 2300	Student Research	(1-3 credits)
BIOL 2400	Topics in Biology	(1-3 credits)
CHEM 1110	Aspects of Chemistry I	(3 credits)
CHEM 1111	Aspects of Chemistry II	(2 credits)
CHEM 1210	General Chemistry I	(5 credits)
CHEM 1211	General Chemistry I	(5 credits)
CHEM 1310	General Chemistry of Solutions	(3 credits)
CHEM 2110	Organic Chemistry I	(5 credits)
CHEM 2111	Organic Chemistry II	(5 credits)
ENSC 1200	Introduction to Environmental Science	(4 credits)(EN)
GEOG 1120	Physical Geography	(4 credits)(EN)
GEOL 1110	Introduction to Geology	(4 credits)(EN)
PHYS 1001	Fundamental Concepts of Physics	(4 credits)
PHYS 1101	Introductory Astronomy	(4 credits)(MA)
PHYS 1170	Physics for the Medical Community	(4 credits)
PHYS 1201	Introduction to Physics I	(5 credits)
PHYS 1202	Introduction to Physics II	(5 credits)
PHYS 2201	General Physics I	(5 credits)
PHYS 2202	General Physics II	(5 credits)

GOAL 4- MATHEMATICAL/LOGICAL REASONING (MA):
(3 Credit Minimum) ONE COURSE IS REQUIRED.

Goal: To increase a student's knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.

MATH 1100	College Algebra	(4 credits)
MATH 1105	Principles of Mathematics	(3 credits)
MATH 1110	Finite Mathematics	(4 credits)
MATH 1120	Survey of Calculus	(3 credits)
MATH 1130	Trigonometry	(3 credits)
MATH 1150	Pre-Calculus	(4 credits)
MATH 2204	Calculus I	(5 credits)
MATH 2205	Calculus II	(5 credits)
MATH 2206	Multi-Variable Calculus	(4 credits)
MATH 2215	Introduction to Linear Algebra	(3 credits)
MATH 2220	Differential Equations	(4 credits)
PHIL 1125	Logic	(3 credits)(HU)
PHYS 1101	Introductory Astronomy	(3 credits)(NS)
STAT 2210	General Statistics	(3 credits)

GOAL 5A- HISTORY (HI): AA = Total (9 Credits Minimum)
between Goal 5A and

Goal 5B - ONE COURSE IS REQUIRED FROM 5A.

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

ART 1120	Introduction to Art History	(3 credits)(HU)
ART 1138	Ceramics I	(3 credits)(HU)
ART 1139	Ceramics II	(3 credits)(HU)
ART 1140	Ceramics III	(3 credits)(HU)
ART 1145	Fibers	(3 credits)(HU)
ART 1210	Three-Dimensional Design	(3 credits)(HU)
ART 1300	Sculpture Workshop	(1 credit)(HU)
ART 1305	Ceramics Workshop	(1 credit)(HU)
ART 2100	Sculpture	(3 credits)(HU)
ART 2105	Sculptural Casting in Clay	(3 credits)(HU)
HIST 1110	European History 3000 B.C. to 1870	(3 credits)(DI)
HIST 1120	European History 1870 to Present	(3 credits)(HU)
HIST 1210	American History 1640 to 1876	(3 credits)(DI)
HIST 1220	American History 1876 to Present	(3 credits)(DI)
HIST 2110	Minnesota History	(3 credits)
HIST 2130	Vietnam: America's Longest War	(3 credits)(ET)
HUM 1105	Introduction to Popular Culture	(3 credits)(HU)
HUM 1110	The Bible as Literature	(3 credits)(HU)*
HUM 1125	Introduction to the Arthurian Legend	(3 credits)(HU)*
HUM 2010	Understanding Archetype, Dream, and Symbol	(3 credits)(HU)*

GOAL 5B - SOCIAL AND BEHAVIORAL SCIENCES (S0):
 AA = Total (9 Credits Minimum) between Goal 5A and Goal 5B
 - ONE COURSE IS REQUIRED FROM 5B.

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

ANTH 1110	Cultural Anthropology	(3 credits)(GL)
ANTH 1120	Cultures of North American Indians	(3 credits)(GL)
ANTH 1125	Physical Anthropology and Archaeology	(3 credits)(GL)
ANTH 2115	World Ethnography	(3 credits)(EN)
ECON 1100	Introduction to Economics	(3 credits)(GL)
ECON 1150	Principles of Economics: Macroeconomics	(3 credits)(GL)
ECON 1160	Principles of Economics: Microeconomics	(3 credits)
GEOG 1110	Human Geography	(3 credits)(GL)
HUM 2100	Children's Media - Origins and Interpretations	(3 credits)(HU)*
PSCI 1110	American Government	(3 credits)(ET)
PSCI 1120	Introduction to Political Science	(3 credits)(ET)
PSCI 1130	State and Local Government	(3 credits)(ET)
PSCI 1140	International Politics	(3 credits)(GL)
PSYC 1120	General Psychology	(3 credits)(DI)
PSYC 1135	Human Development	(3 credits)(DI)
PSYC 2125	Child Psychology	(3 credits)
PSYC 2130	Adolescent Psychology	(3 credits)
PSYC 2140	Abnormal Psychology	(3 credits)(DI)
PSYC 2150	Psychology of Aging and Elderly	(3 credits)(DI)
SOC 1111	Introduction to Sociology	(3 credits)(DI)
SOC 1112	Comparative Sociology	(3 credits)(DI)
SOC 1125	Social Deviance	(3 credits)(GL)
SOC 1130	Crime and Delinquency	(3 credits)
SOC 1140	Marriages and Families	(3 credits)(DI)
SOC 1145	Race, Class, and Gender	(3 credits)(DI)
SOC 1150	Introduction to Women's Studies	(3 credits)(DI)
SOC 1155	Human Sexuality	(3 credits)(DI)
SOC 2120	Social Problems	(3 credits)(DI)
SOC 2121	Social Solutions: The Sociology of Positive Social Change	(3 credits)(GL)
SOC 2122	Sociology of the Community	(3 credits)(GL)
SOC 2170	Sociology of Birth and Death	(3 credits)
SOC 2171	Sociology of Sport	(3 credits)(DI)

GOAL 6 - HUMANITIES AND FINE ARTS (HU):
 (9 Credits Minimum MUST Include One Literature Course.
 No More Than Three (3) One-Credit Courses in Art, Humanities, Music, Spanish, or Theater May Be Used.) Languages Do NOT Fulfill the MNTC.

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

ART 1110	Two-Dimensional Design	(3 credits)
ART 1115	Painting I	(3 credits)
ART 1116	Advanced Painting	(3 credits)
ART 1120	Introduction to Art History	(3 credits)(HI)
ART 1125	Watercolor	(3 credits)
ART 1130	Introduction to the Studio Arts	(3 credits)(ET)
ART 1138	Ceramics I	(3 credits)(HI)
ART 1139	Ceramics II	(3 credits)(HI)
ART 1140	Ceramics III	(3 credits)(HI)
ART 1145	Fibers	(3 credits)(HI)
ART 1151	Drawing I	(3 credits)
ART 1152	Drawing II	(3 credits)
ART 1160	Printmaking	(3 credits)
ART 1199	Special Topics in Art	(1-3 credits)
ART 1210	Three-Dimensional Design	(3 credits)(HI)
ART 1300	Sculpture Workshop	(3 credits)(HI)
ART 1305	Ceramic Workshop	(3 credits)(HI)
ART 2100	Sculpture	(3 credits)(HI)
ART 2105	Sculptural Casting in Clay	(3 credits)(HI)
ART 2199	Independent Study	(1 credit)
ENGL 1100	Creative Writing	(3 credits)
ENGL 1109	College Composition II	(3 credits)(CO)
ENGL 1110	Literature of the American West	(3 credits)*
ENGL 1115	Introduction to Literature: The Short Story	(3 credits)*
ENGL 1120	Introduction to Literature: The Novel	(3 credits)*
ENGL 1130	Science Fiction	(3 credits)*
ENGL 1140	Introduction to Literature: Poetry	(3 credits)*
ENGL 1150	Multicultural Literature	(3 credits)*
ENGL 1170	From Literature to Film	(3 credits)*
ENGL 1210	Introduction to Literature: Drama	(3 credits)*
ENGL 2101	English Literature 12th to 17th Century	(3 credits)*
ENGL 2102	English Literature 18th Century to Present	(3 credits)*
ENGL 2105	American Literature I	(3 credits)*
ENGL 2106	American Literature II	(3 credits)*
ENGL 2120	Introduction to African-American Literature	(3 credits)(DI)*
ENGL 2130	Introduction to Native American Literature	(3 credits)(DI)*
ENGL 2140	World Literature	(3 credits)(GL)*
ENGL 2150	Shakespeare, the Elizabethan Age, and Contemporary Perspectives	(3 credits)(GL)*

HIST 1120	European History 1870 to Present	(3 credits)(HI)	BIOL 1105	Biology of Women	(3 credits)(NS)
HUM 1101	Introduction to Humanities: The Classical Through Medieval Periods	(3 credits)(GL)	ENGL 2120	Introduction to African-American Literature	(3 credits)(HU)*
HUM 1102	Introduction to Humanities: The Renaissance Through the Contemporary Periods	(3 credits)(GL)	ENGL 2130	Introduction to Native American Literature	(3 credits)(HU)*
HUM 1105	Introduction to Popular Culture	(3 credits)(HI)	HIST 1110	European History 3000 B.C. - 1870	(3 credits)(HI)
HUM 1110	The Bible as Literature	(3 credits)(HI)*	HIST 1210	American History 1640 - 1876	(3 credits)(HI)
HUM 1125	Introduction to Humanities: The Arthurian Legend	(3 credits)(HI)*	HIST 1220	American History 1876 to Present	(3 credits)(HI)
HUM 1130	Comparative Religion	(3 credits)(GL)	HUM 1135	Utopian Images: Fiction and Fact	(3 credits)(HU)*
HUM 1135	Utopian Images: Fiction and Fact	(3 credits)(DI)*	HUM 1140	Modern Fantasy	(3 credits)(HU)*
HUM 1140	Modern Fantasy	(3 credits)(DI)*	HUM 1180	Comparative Mythology	(3 credits)(HU)*
HUM 1160	Classified Greek and Roman Mythology	(3 credits)(GL)*	MCS 2301	Study Abroad: Europe	(1-3 credits)(GL)
HUM 1180	Comparative Mythology	(3 credits)(DI)*	PSYC 1120	General Psychology	(3 credits)(SO)
HUM 1190	Folklore	(3 credits)(GL)*	PSYC 1135	Human Development	(3 credits)(SO)
HUM 2000	Topics in Humanities	(1 credit)	PSYC 2140	Abnormal Psychology	(3 credits)(SO)
HUM 2010	Understanding Archetype, Dream, and Symbol	(3 credits)(HI)*	PSYC 2150	Psychology of Aging and Elderly	(3 credits)(SO)
HUM 2100	Children's Media - Origins & Interpretations	(3 credits)(SO)*	SOC 1111	Introduction to Sociology	(3 credits)(SO)
MUSC 1105	America's Music	(3 credits)	SOC 1112	Comparative Sociology	(3 credits)(SO)
MUSC 1110	Appreciation of Music	(3 credits)	SOC 1114	Introduction to Criminal Justice	(3 credits)(ET)
MUSC 1120	Fundamentals of Music	(3 credits)	SOC 1135	Introduction to African-American Culture	(2 credits)(GL)
MUSC 1160	Applied Music	(1 credit)	SOC 1140	Marriages and Families	(3 credits)(SO)
MUSC 1170	Advanced Music - Intensive Study	(2 credits)	SOC 1145	Race, Class, and Gender	(3 credits)(SO)
PHIL 1120	Introduction to Philosophy	(3 credits)	SOC 1150	Introduction to Women's Studies	(3 credits)(SO)
PHIL 1125	Logic	(3 credits)(MA)	SOC 1155	Human Sexuality	(3 credits)(SO)
PHIL 1130	Ethics	(3 credits)(ET)	SOC 1175	Introduction to Gerontology	(3 credits)(GL)
PHIL 1140	Critical Thinking	(3 credits)	SOC 2120	Social Problems	(3 credits)(SO)
PHIL 2140	Philosophy of Religion	(3 credits)	SOC 2171	Sociology of Sport	(3 credits)(SO)
PHIL 2150	Political Philosophy	(3 credits)(ET)	SPCH 1115	Intercultural Communication	(3 credits)(CO)
PHIL 2999	Topics in Philosophy	(1-3 credits)			
SPAN 1800	Spanish Abroad: Mexico	(2 credits)(GL)			
THTR 1100	Theater Production	(1 credit)			
THTR 1110	Stage Lighting	(3 credits)			
THTR 1115	Sound Design	(3 credits)			
THTR 1120	Stage Makeup	(3 credits)			
THTR 1125	Costume Construction	(3 credits)			
THTR 1130	Set Design	(3 credits)			
THTR 1135	Stage Craft	(3 credits)			
THTR 1200	Introduction to the Theater	(3 credits)			
THTR 1211	Acting I	(3 credits)			
THTR 1212	Acting II	(3 credits)			
THTR 1240	Introduction to Stage Directing	(3 credits)			
THTR 1300	Directing Workshop	(1-3 credits)			
GOAL 7 - HUMAN DIVERSITY (DI): 3 Credits Minimum)			GOAL 8 - GLOBAL PERSPECTIVE (GL): (3 Credits Minimum)		
Goal: To increase a student's understanding of individual and group differences (i.e., race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the United States' historical and contemporary responses to group differences.			Goal: To increase a student's understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic, and political experiences.		
			ANTH 1110	Cultural Anthropology	(3 credits)(SO)
			ANTH 1120	Cultures of North American Indians	(3 credits)(SO)
			ANTH 1125	Physical Anthropology and Archaeology	(3 credits)(SO)
			ANTH 1200	Anthropological Field Experience Abroad	(3 credits)
			ANTH 1301	Cultures of Meso America	(3 credits)(EN)
			ECON 1100	Introduction to Economics	(3 credits)(SO)
			ECON 1150	Principles of Economics: Macroeconomics	(3 credits)(SO)
			ENGL 2140	World Literature	(3 credits)(HU)*
			ENGL 2150	Shakespeare, the Elizabethan Age, and Contemporary Perspectives	(3 credits)(HU)*

GEOG 1110	Human Geography	(3 credits)(SO)
HUM 1101	Introduction to Humanities: The Classical Through Medieval Periods	(3 credits)(HU)
HUM 1102	Introduction to Humanities: The Renaissance Through the Contemporary Periods	(3 credits)(HU)
HUM 1130	Comparative Religion	(3 credits)(HU)
HUM 1160	Classified Greek and Roman Mythology	(3 credits)(HU)*
HUM 1190	Folklore	(3 credits)(HU)*
HUM 2010	Understanding Archetype, Dream, and Symbol	(3 credits)(HU)*
MACO 1200	Introduction to Media: The Genres of Journalism	(3 credits)(ET)
MACO 1205	Introduction to Media: Journalistic Perspective	(3 credits)(ET)
MCS 2301	Study Abroad: Europe	(1-3 credits)(DI)
PSCI 1140	International Politics	(3 credits)(SO)
SOC 1125	Social Deviance	(3 credits)(SO)
SOC 1135	Introduction to African-American Culture	(2 credits)(DI)
SOC 1175	Introduction to Gerontology	(3 credits)(DI)
SOC 2121	Social Solutions: The Sociology of Positive Social Change	(3 credits)(SO)
SOC 2122	Sociology of the Community	(3 credits)(SO)
SPCH 1120	Media, Persuasion, and Society	(3 credits)(ET)

GOAL 9 - ETHICS AND CIVIC RESPONSIBILITY (ET):
(3 Credit Minimum)

Goal: To develop a student's capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and others' positions.

ART 1130	Introduction to the Studio Arts	(3 credits)(HU)
HIST 2130	Vietnam: America's Longest War	(3 credits)(HI)
MACO 1200	Introduction to Media: The Genres of Journalism	(3 credits)(GL)
MACO 1205	Introduction to Media: Journalistic Perspective	(3 credits)(GL)
PHIL 1130	Ethics	(3 credits)(HU)
PHIL 2150	Political Philosophy	(3 credits)(HU)
PSCI 1110	American Government	(3 credits)(SO)
PSCI 1120	Introduction to Political Science	(3 credits)(SO)
PSCI 1130	State and Local Government	(3 credits)(SO)
SOC 1114	Introduction to Criminal Justice	(3 credits)(DI)
SPCH 1120	Media, Persuasion, and Society	(3 credits)(GL)

GOAL 10 - PEOPLE AND THE ENVIRONMENT (EN):

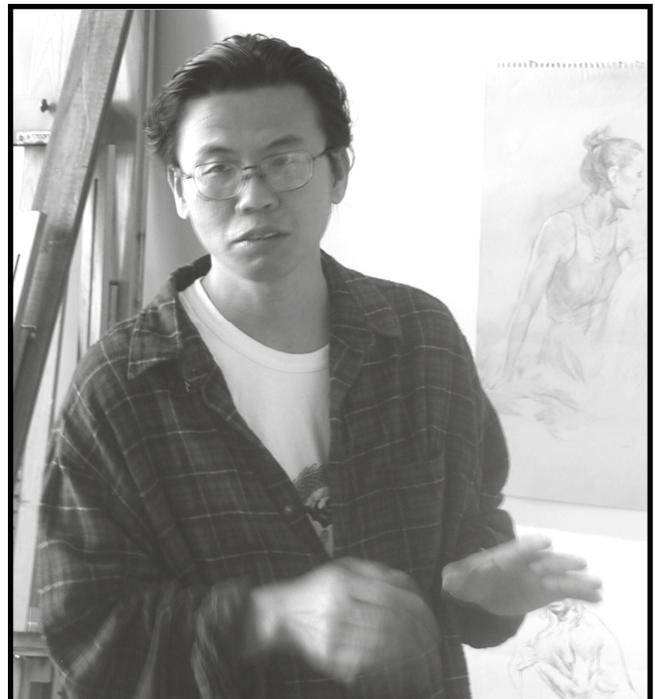
(3 credit minimum)

Goal: To improve a student's understanding of today's complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both bio-physical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.

ANTH 1301	Cultures of Meso America	(3 credits)(GL)
ANTH 2115	World Ethnography	(3 credits)(SO)
BIOL 1110	Minnesota's Natural Heritage	(4 credits)(NS)
BIOL 1120	Principles of General Biology	(5 credits)(NS)
BIOL 1130	General Biology of Organisms	(5 credits)(NS)
BIOL 2200	General Ecology	(4 credits)(NS)
BIOL 2205	Limnology	(3 credits)(NS)
ENSC 1200	Introduction to Environmental Science	(4 credits)(NS)
GEOG 1120	Physical Geography	(4 credits)(NS)
GEOL 1110	Introduction to Geology	(4 credits)(NS)

PART II: Additional AA Requirements - Physical Education requirements (2 Credits) Required for AA

PART III: Additional Elective Credits - (MUST BE ABOVE 1000) (A Maximum of 4 Workshop Credits Will Count Toward the AA) (16 Credits May Come From Occupational Courses)



Technical Programs

Business Careers

Accountant - 70 Credits

Associate in Applied Science Degree Program

The Accountant program trains students in the preparation of financial statements, budget analysis, cost and managerial accounting, income tax applications and payroll accounting. Students also learn to use some of the more popular accounting software, including Microsoft Office, Peachtree Accounting, Great Plains Accounting, and Turbo Tax. A total of 18 credits of general education courses are needed to complete the degree.

Upon successful completion of the A.A.S. in Accounting, the student should be well prepared to sit for the Accredited Business Accountant exam. This comprehensive examination is administered by the Accreditation Council for Accountancy and Taxation. Sitting for this professional exam is highly recommended, but not a requirement of the LSC program.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ACCT1400	Accounting Math	2
ACCT1420	Intro to Financial Accounting (Accounting Majors)	3
ACCT1500	Personal Finance	3
ACCT1530	Payroll Accounting	3
ACCT1550	Tax Accounting I	3
ACCT2410	Spreadsheet Concepts and Applications for Accounting	2
ACCT2420	Intermediate Accounting I	4
ACCT2430	Managerial Accounting	3
ACCT2450	Tax Accounting II	3
ACCT2460	Computerized Apps in Accounting	2
ACCT2520	Intermediate Accounting II	4
ACCT2570	Comprehensive Review for Accreditation in Accounting	4
ADSC1420	Business Communications	3
ADSC1430	Integrated Software Apps I	3
ADSC1431	Integrated Software Apps II	3
COMM1601	HR-The Individual in Career or Classroom	1
ECON1160	Principles of Economics-Micro	3
ENGL1106	College Composition I	3
LGST1420	Business Law	3
	Technical Electives	3

Minnesota Transfer Curriculum:

Math (any course 1100 or above)	3
Humanities (any course 1100 or above)	3
Non-designated	3

Program Outcomes

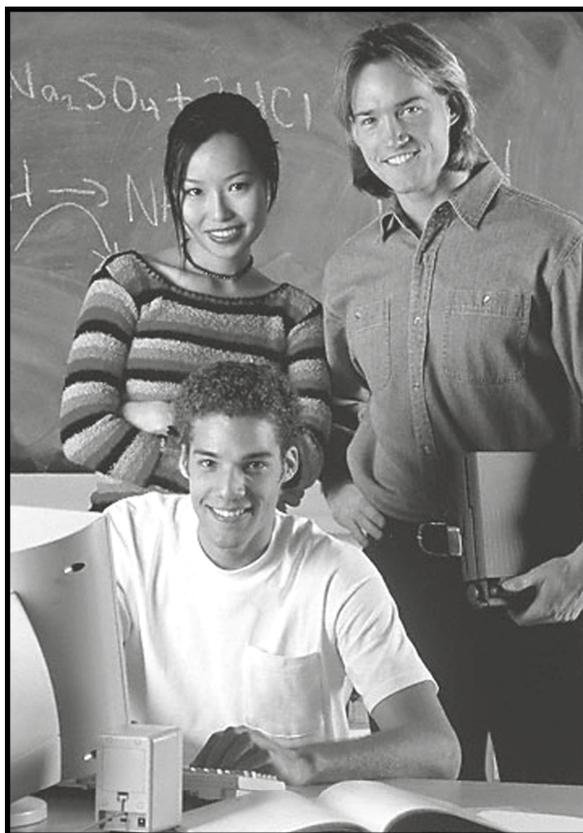
The program is designed to provide students with the knowledge and ability to:

- Successfully complete a comprehensive problem requiring the preparation of the basic financial statements
- Successfully complete a comprehensive problem requiring the preparation of an individual income tax return
- Successfully complete a comprehensive problem requiring all of the steps of the accounting cycle, using general ledger software
- Successfully complete a comprehensive problem requiring the analysis and correction of a set of financial statements
- Successfully complete a comprehensive accounting exam, similar to those given by the Accreditation Council for Accountancy and Taxation

Administrative Office Specialist - 66 Credits **Associate in Applied Science Degree Program**

This program is designed to prepare the student for employment as an Administrative Office Specialist. Administrative Office Specialists may perform duties such as preparing correspondence, filing, calendaring, handling mail, and computerized applications. In addition, they may be asked to assume responsibility for composing and dictating letters, recording meeting minutes, collecting data and performing research, generating reports, maintaining budgets and other accounting applications, and supervisory duties.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1415	Keyboarding I	4
ADSC1416	Keyboarding II	4
ADSC1420	Business Communications	3
ADSC1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1431	Integrated Office Software Apps II	3
ADSC1432	Integrated Office Activities	1
ADSC1440	General Office Procedures	3
ADSC1441	Bookkeeping	2
ADSC1442	Records Management	2
ADSC1452	General Transcription	2
ADSC1715	Word Processing	2
ADSC1718	Keyboarding Drills	1
ADSC2410	Desktop Publishing	2
ADSC2497	Internship	3
ACCT1520	Financial Accounting: The Double Entry System	3
MKTG2770	Principles of Mgmt & Supervision	3



ENGL1106	College Composition I	3
ENGL1109	College Composition II	3
	Business electives	2
	General Education electives	2
Minnesota Transfer Curriculum:		
	Social/Behavioral Science	3
	Humanities	3
	Communications	9
	Non-designated	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence using correct English and proofreading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Apply ARMAindexing and filing procedures and rules
- Transcribe various types of material into mailable documents using correct English skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Utilize computer productivity software for business applications
- Develop a job search plan, appropriate documents, and exhibit appropriate interview skills
- Apply learned program skills and knowledge to work or simulated situations
- Analyze and record business transactions, generate reports, and prepare financial statements
- Demonstrate coordinating and supervisory responsibilities
- Utilize computer productivity software with desktop publishing applications

Administrative Support-Legal Secretary - 36 Credits

Diploma Program

This program is designed to prepare the student for employment as a legal secretary. The legal secretary's primary function is to assist in preparation of legal correspondence and documents and in meeting deadlines. Other duties may include public/client relations, timekeeping, gathering information from clients, filing, and general office duties. Legal secretaries transcribe from dictation and draft copy using microcomputers.

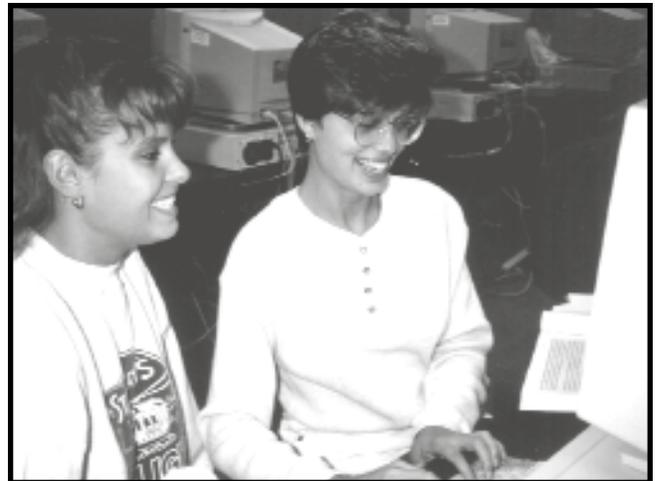
Course #	Course Title	Credits
ADSC1415	Keyboarding I	4
ADSC1420	Business Communications	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1442	Records Management	2
ADSC1452	General Transcription	2
ADSC1511	Law Office Procedures I	3
ADSC1512	Law Office Procedures II	4
ADSC1515	Law Office Applications	4
ADSC1520	Legal Keyboarding	2
ADSC1525	Legal Transcription/Word Proc. Apps.	2
ADSC1530	Law Office Capstone	1
ADSC1715	Word Processing	2
LGST1420	Business Law	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate keyboarding production proficiency
- Perform general office tasks in the legal environment

- Apply ARMAindexing and filing procedures and rules
- Demonstrate proficiency in using a variety of computer software programs
- Transcribe material containing legal terminology into mailable documents using correct English skills
- Produce professional written business correspondence using correct English and proofreading skills
- Plan and deliver verbal business presentations using correct English skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Develop a job search plan and appropriate documents and interview skills



Aviation Management - 60 Credits Associate of Applied Science Accelerated Degree

The Aviation Management Program is specifically designed to provide persons experienced in the aviation industry with the skills necessary to be successful in a position of leadership and to enhance their career mobility. This degree program is highly individualized based on each student's aviation industry experience and educational needs.

This program is structured to allow students to remain employed full-time while attending classes on a part-time basis. Supervisory Management (SMGT prefix) courses taken as part of the Aviation Management AAS Degree are delivered via accelerated methodology and will require commitment by the student to contribute a significant amount of time and effort outside of scheduled class times in study groups, class preparation, individual study, and applying relevant concepts on the job. Classes are scheduled two evenings each week and on occasional Saturdays. Upon approval, students may transfer in applicable transcribed course credits and/or experiential learning credits to satisfy required or elective program credits.

Students will have the opportunity to increase their skills in leadership, communications, team building, employee motivation, creative problem solving, performance management, coaching, managing priorities, building productive working relationships, project management, conducting effective meetings, and many more supervisory leadership techniques and tools.

Cored Supervisory Management Courses:
(Select 15 credits with advisor approval)

Course #	Course Title	Credits
SMGT1400	Supervisory Leadership	3
SMGT1405	Strategies For Personal Leadership	3
SMGT1415	Leadership Development & Ethics	3
SMGT1425	Managing Time, Change & Stress	3
SMGT1455	Leadership Capstone Project	2
SMGT1505	Quality & Improvement	3
SMGT1515	Building & Leading Effective Work Teams	3
SMGT1525	Project Management	3
SMGT1535	Creative Problem Solving	3
SMGT1555	Quality Capstone Project	2
SMGT1605	Performance Management & Coaching	3
SMGT1615	Employment Law & Occupational Safety	3
SMGT1625	Budget Analysis & Cost Control	3
SMGT1635	Employee Training & Development	3
SMGT1655	HRD Capstone Project	2
SMGT1700	Personal Portfolio Design	1
SMGT1705	Accelerated Learning Concepts & Strategies	2

Minnesota Transfer Curriculum:		
	Communications	3
	Humanities	3
	Social Sciences	3
	Math/Science	3
	Non-designated	3

Aviation Career Courses (30 credits):		
Documented Aviation Experiential Learning credits	1-30	
Approved career related technical elective courses (valid FAA&P Certificate equivalent to 30 credits)	1-10	

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer focused strategies
- Demonstrate analytical skills in identifying and solving problems
- Understand contemporary behavior and apply human relations skills
- Develop and implement change strategies
- Demonstrate leadership skills and identify approaches to motivation used to achieve a productive work environment
- Apply marketing, management, and organizational theories in a supervisory setting
- Apply human resources management practices
- Plan, prepare and deliver effective oral and written communications
- Demonstrate financial management skills
- Utilize current technology
- Apply strategies for customer focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Exercise creativity and innovation
- Demonstrate interpersonal communication skills

Business Administration - 63 Credits Associate in Science Degree Program

The Associate in Science in Business Administration program is designed to prepare students in general business administration and management, enhance skills and competencies in current jobs and assist in career advancement opportunities. In addition, the A.S. degree program is designed to provide General education Courses for students who intend to transfer into a baccalaureate program at a chosen four-year college. Specific transfer arrangements with the college of choice should be made as early in the

degree as possible to ensure for appropriate program planning for enrollment at Lake Superior College. The program provides for electives in both liberal arts and business that allow students to customize their program to meet individual learning objectives, as well as fulfill varying requirements for transfer into a four-year bachelor's degree program at a chosen college. Students are advised to consult with a Business Advisor to ensure that selected courses will fulfill specific transfer requirements of the chosen transfer college.

Course #	Course Title	Credits
ACCT1420	Intro to Financial Accounting (Accounting Majors)	3
ACCT2430	Managerial Accounting	3
ADSC1420	Business Communications	3
ADSC1430	Integrated Office Software Applications I	3
ADSC1431	Integrated Office Software Applications II	3
BUS1600	Introduction to Business	3
BUS2500	Business Management Applications	3
ECON1150	Principles of Economics: Macroeconomics	3
ECON1160	Principles of Economics: Microeconomics	3
ECON2020	Statistics for Business and Economics I	3
LGST1420	Business Law	3
MATH1110	Finite Mathematics	3
OR		
MATH1120	Survey of Calculus	(3)
MKTG1421	Principles of Marketing	3
MKTG2770	Principles of Management and Supervision	3
COMM1105	Interpersonal Communication	3
OR		
COMM1110	Methods of Public Speaking General Education (must be from Minnesota Transfer Curriculum)	(3) 18

Note: Total Requirement for General Education is 30 credits from any 6 categories of the Minnesota Transfer Curriculum

Program Outcomes

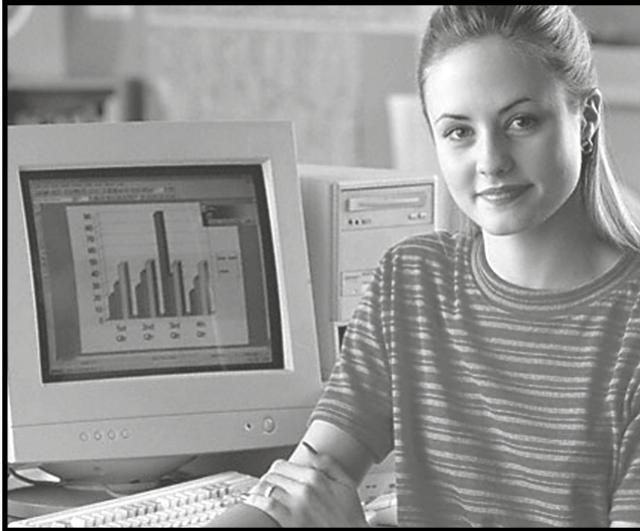
This program is designed to provide students with the ability to:

- Apply effective business administration concepts and tools
- Understand contemporary business strategies
- Demonstrate analytical skills in identifying and solving problems
- Apply marketing, management, and economic concepts in a business setting
- Apply accounting principles and practices
- Demonstrate financial management skills
- Demonstrate administrative management skills
- Demonstrate interpersonal communication skills
- Plan, prepare, and deliver effective oral and written communications
- Make business decisions in compliance with law
- Create statistically reliable and valid data
- Demonstrate understanding of statistical data for business decisions
- Utilize effective software applications for business administration

Business Information Specialist - 16 Credits Certificate Program

Choose 16 credits from the following Business Flex Lab Offerings:

Course #	Course Title	Credits
BUS1801	Discovering Computers Level I	1
BUS1802	Discovering Computers Level 2	1
BUS1811	Basic Keyboarding	1
BUS1821	MS Windows 98 Level 1	1



BUS1822	MS Windows 98 Level 2	1
BUS1831	MS Windows XP Level 1	1
BUS1832	MS Windows XP Level 2	1
BUS1851	MS Word 2000 Level 1	1
BUS1852	MS Word 2000 Level 2	1
BUS1853	MS Word 2000 Level 3	1
BUS1861	MS Word 2002 Level 1	1
BUS1862	MS Word 2002 Level 2	1
BUS1863	MS Word 2002 Level 3	1
BUS1881	MS Excel 2000 Level 1	1
BUS1882	MS Excel 2000 Level 2	1
BUS1883	MS Excel 2000 Level 3	1
BUS1891	MS Excel 2002 Level 1	1
BUS1892	MS Excel 2002 Level 2	1
BUS1893	MS Excel 2002 Level 3	1
BUS1911	MS PowerPoint 2000	1
BUS1921	MS PowerPoint 2002	1
BUS1941	MS Access 2000 Level 1	1
BUS1942	MS Access 2000 Level 2	1
BUS1943	MS Access 2000 Level 3	1
BUS1951	MS Access 2002 Level 1	1
BUS1952	MS Access 2002 Level 2	1
BUS1953	MS Access 2002 Level 3	1
BUS1971	MS FrontPage 2000	1
BUS1981	MS FrontPage 2002	1

Health Insurance and Billing - 30 credits Certificate Program

The Health Insurance and Billing certificate program will prepare individuals to understand billing procedures, basic coding, insurance guidelines, medical terminology and regulatory changes affecting insurance billing and coding.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1415	Keyboarding I	4
ADSC1422	Business Vocabulary and Proofreading	1
ADSC1610	Medical Office Terminology	3
ADSC1611	Medical Office Procedures I	3
ADSC1612	Medical Office Procedures II	3
ADSC1614	Health Insurance and Billing	3
ADSC1616	CPT Coding	2
ADSC1621	Medical Office Anatomy and Physiology I	3
ADSC1622	Medical Office Anatomy and Physiology II	3
ADSC1635	Medical Office Diagnostic Coding	4
ADSC1425	Calculators/Ten-key	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Receive medical claim forms
- Abstract medical information such as diagnosis, prognosis, and treatment dates from patient records
- Transcribe medical reports using correct format, capitalization, number, punctuation, abbreviation, symbols, and metric measurement rules
- Complete common insurance forms
- Follow the basic claims process for medical insurance and third party reimbursements
- Solve insurance billing problems
- Manually file claims (using the CPT manual)
- Trace delinquent claims
- Appeal denied claims
- Describe the importance of the confidential nature of medical reports
- Answer inquiries from doctors, patients, and insurance companies

Human Resources Development - 14 Credits Accelerated Certificate Program

The Human Resource Development Certificate is an individually available component of the Supervisory Management A.A.S. Degree program. It is specifically designed to provide employed students with the skills necessary to be successful in a position of supervisory leadership. Courses in the certificate program focus on skills and techniques directly related to human resource development issues.

The Human Resource Development Program is an accelerated program. Students entering the program commit to attending classes weekly following a preplanned sequence of courses and may complete their course work in one semester. Courses are scheduled "one at a time" in a recommended sequence meeting two evenings each week for three hours and for occasional Saturday sessions. Courses are offered in a highly interactive accelerated format that reduces classroom time and increases outside class activities. Students are expected to contribute a significant amount of time and effort outside of the scheduled class time in study groups, class preparation, individual study, and applying relevant concepts on the job.

Students will have the opportunity to increase their skills in performance management, coaching, managing diversity, employee selection and training, managing workplace stress, safety, and many more human resource development related topics.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
SMGT1605	Performance Management & Coaching	3
SMGT1615	Employment Law & Occupational Safety	3
SMGT1625	Budget Analysis & Cost Control	3
SMGT1635	Employee Training & Development	3
SMGT1655	HRD Capstone Project	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer-focused strategies
- Demonstrate analytical skills in identifying and solving problems
- Understand contemporary behavior and apply human relations skills
- Develop and implement change strategies
- Demonstrate leadership skills and identify approaches to motivation used to achieve a productive work environment



- Apply human resources management practices
- Plan, prepare and deliver effective oral and written communications
- Utilize current technology
- Apply strategies for customer focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Demonstrate interpersonal communication skills

Human Resources Management - 10 credits Certificate Program

The Certificate in Human Resources Management is specifically designed to provide students currently employed in human resources administrative positions with knowledge and skills to qualify them for advancement in the profession of human resources management. The technical areas of focus include benefits and pension administration, compensation administration, human resources information systems, and legal issues in human resources management.

Course #	Course Title	Credits
SMGT1680	Fundamentals of Human Resources	2
SMGT1682	Human Resources and the Law	2
SMGT1684	Wage and Salary Administration	1
SMGT1686	Employee Benefit Plans & Administration	1
SMGT1688	Pension Administration Fundamentals	1
SMGT1690	HR Information Systems & Technology	1

Approved Electives:
(Select 2 credits with advisor approval)

Course #	Course Title	Credits
SMGT1600	Performance Management	2
SMGT1630	Employment Law	1
SMGT1650	Employee Training	2
SMGT1670	Safety and Compliance Management	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer focused strategies
- Demonstrate analytical skills in identifying and solving problems

- Understand contemporary behavior and apply human relations skills
- Apply human resources management practices
- Plan, prepare and deliver effective oral and written communications
- Utilize current technology
- Apply strategies for customer focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Demonstrate interpersonal communication skills

Information Processing Assistant - 35 Credits Diploma Program

This program is designed to prepare the student for employment as an Information Processing Assistant utilizing word processing skills. Information Processing Assistants perform a full range of office tasks. They may handle incoming and outgoing mail, type documents and forms, transcribe business documents from dictation, file and retrieve records, handle telephone calls, and make travel arrangements. They use a wide variety of office equipment including microcomputers, transcribing machines, calculators, and photocopiers.

Course #	Course Title	Credits
ADSC1415	Keyboarding I	4
ADSC1416	Keyboarding II	4
ADSC1420	Business Communications	3
ADSC1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1431	Integrated Office Software Apps II	3
ADSC1432	Integrated Office Activities	1
ADSC1440	General Office Procedures	3
ADSC1441	Bookkeeping	2
ADSC1442	Records Management	2
ADSC1452	General Transcription	2
ADSC1715	Word Processing	2
ADSC1718	Keyboarding Drills	1
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence using correct English and proofreading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Apply ARMA indexing and filing procedures and rules
- Transcribe various types of material into mailable documents using correct English skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Utilize computer productivity software for business applications
- Develop a job search plan, appropriate documents, and exhibit appropriate interview skills
- Apply learned program skills and knowledge to work or simulated situations
- Analyze and record business transactions, generate reports, and prepare financial statements

Legal Administrative Assistant - 65 Credits Associate in Applied Science Degree Program

This program is designed to prepare the student for employment as a Legal Administrative Assistant. The Legal Administrative Assistant may perform some of the same functions as a legal secretary: preparing legal correspondence and documents; meeting deadlines; public/client relations; timekeeping; gathering information from clients; and filing. In addition, legal administrative assistants may perform more complex tasks, assume coordinating and scheduling and/or supervisory activities, and assist in legal research.

Course #	Course Title	Credits
ADSC1415	Keyboarding I	4
ADSC1416	Keyboarding II	4
ADSC1420	Business Communications	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1442	Records Management	2
ADSC1452	General Transcription	2
ADSC1511	Law Office Procedures I	3
ADSC1512	Law Office Procedures II	4
ADSC1515	Law Office Applications	4
ADSC1520	Legal Keyboarding	2
ADSC1525	Legal Transcription/Word Proc. Apps.	2
ADSC1530	Law Office Capstone	1
ADSC1715	Word Processing	2
ADSC2520	Advanced Legal Practices	3
ADSC2525	Legal Research	2
ADSC2597	Internship or ADSC1421 Business Presentations	3
LGST1420	Business Law	3

Minnesota Transfer Curriculum:

Social/Behavioral Science	3
Humanities (PHIL1130 recommended)	3
Communications (College Composition I & II)	6
General Ed. Electives	5

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate keyboarding production proficiency
- Perform general office tasks in the legal environment
- Apply ARMA indexing and filing procedures and rules
- Demonstrate proficiency in using a variety of computer software programs
- Transcribe material containing legal terminology into mailable documents using correct English skills
- Produce professional written business correspondence using correct English and proofreading skills
- Plan and deliver verbal business presentations using correct English skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Develop a job search plan, appropriate documents, and exhibit appropriate interview skills
- Exhibit advanced transcription and drafting abilities
- Assist in legal research tasks
- Apply learned skills and knowledge to work situations

Legal Secretary - 16 Credits Certificate Program

This program is offered to students entering with general secretarial background and wishing to add a law office emphasis. Short-term training and flex-time options are available to those students who are maintaining a job and family obligations. Students entering with general office background, whether obtained through prior education or experience, do not need to spend the time and credits the full diploma requires. Placement in the field is strong and area attorneys regularly request qualified support staff.

Course #	Course Title	Credits
ADSC1515	Law Office Applications	4
ADSC1517	Computers in the Law Office	3
ADSC1520	Legal Keyboarding	2
ADSC1525	Legal Transcription/Word Processing Applications	2
ADSC2525	Legal Research	2
LGST1400	Legal Studies I: Terminology, Procedures And Documentation	3

Note: Courses available in flex lab setting (late afternoon/early evening two nights per week) with on-line options for most assignments. May be completed over one or more semesters, with Internship (ADSC2597) recommended if not employed upon completion.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate keyboarding production proficiency
- Demonstrate proficiency in using a variety of computer software programs
- Transcribe material containing legal terminology into mailable documents using correct English skills
- Produce professional written business correspondence using correct English and proofreading skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Exhibit advanced transcription and drafting abilities
- Assist in legal research tasks
- Apply learned skills and knowledge to work situations

Medical Administrative Secretary - 70 credits Associate in Applied Science Degree Program

This program is designed to prepare the student for employment as a Medical Administrative Secretary. The Medical Administrative Secretary performs many of the same functions as the medical secretary, but office supervisory activities become a major responsibility: coordinating and scheduling activities, applying the legalities of releasing information, policy interpretation, authorization, and purchasing. The secretary may also manage document storage and retrieval systems and utilize centralized computer systems.

Course #	Course Title	Credits
ADSC1415	Keyboarding I	4
ADSC1416	Keyboarding II	4
ADSC1420	Business Communications	3
ADSC1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1442	Records Management	2
ADSC1610	Medical Office Terminology	3
ADSC1611	Medical Office Procedures I	3
ADSC1612	Medical Office Procedures II	3
ADSC1614	Health Insurance and Billing	3

ADSC1621	Medical Office Anatomy & Physiology I	3
ADSC1622	Medical Office Anatomy & Physiology II	3
ADSC1625	Medical Machine Transcription	4
ADSC1715	Word Processing	2
ADSC2695	Medical Secretary Capstone	1
ADSC2697	Program Internship	3
MKTG2770	Principles of Mgmt. & Supervision	3

Minnesota Transfer Curriculum:		
	Math/Science	3
	Humanities (Ethics)	3
	Communications (College Composition I)	3
	Speech (Interpersonal Communications)	3
	Non-designated structures	6

Other Technical Credits:		
	Business Electives	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence and medical correspondence using correct English and proof-reading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Apply ARMA indexing and filing procedures and rules appropriate in a medical setting
- Transcribe mailable dictated medical reports and documents using correct medical transcription skills
- Demonstrate ability to correctly spell, define, and pronounce medical office terminology and/or abbreviations
- Demonstrate proficiency with drug reference books
- Demonstrate coordinating and supervisory responsibilities
- Utilize computer productivity software for business applications
- Integrate medical office tasks such as insurance, coding, banking, telephone techniques, billing, and scheduling of appointments
- Apply learned skills and knowledge from the Medical Administrative Secretary program in an actual medical setting
- Exhibit ethical behavior, a positive self-image, and professional conduct
- Develop a job search plan and prepare appropriate documents and exhibit appropriate interview skills

Medical Receptionist - 30 Credits

Certificate Program

This program is designed to prepare the student for employment as a Medical Receptionist. Medical Receptionists may be responsible for answering telephones, scheduling appointments, and preparing correspondence. Persons in this position need to know medical office terminology; must be familiar with hospital, clinic, and physician office health information procedures; and understand medical laws and ethics. In addition, the Medical Receptionist may be involved in handling release of information requests.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADCS1415	Keyboarding I	4
ADSC1420	Business Communications	3
ADCS1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1450	Machine Transcription	1
ADSC1610	Medical Office Terminology	3
ADSC1611	Medical Office Procedures I	3
ADSC1612	Medical Office Procedures II	3

ADSC1614	Health Insurance and Billing	3
ADSC1715	Word Processing	2
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

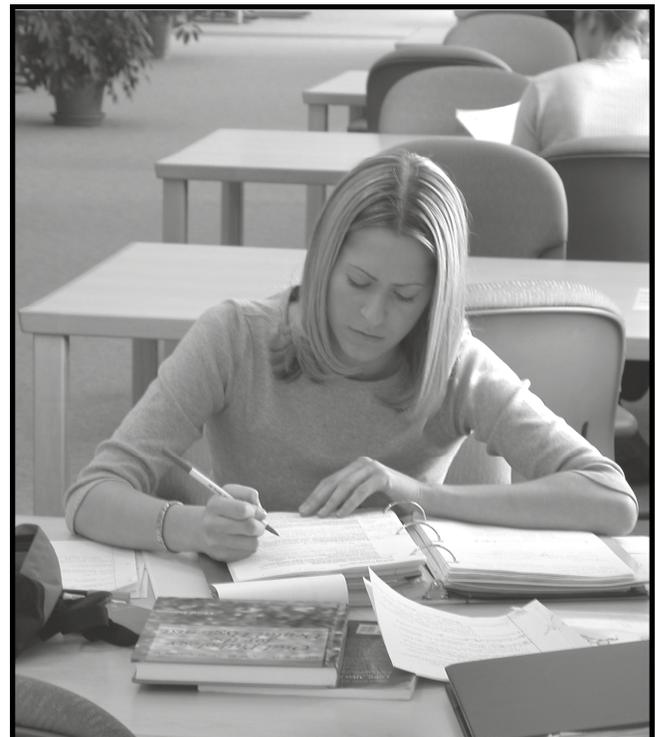
The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence and medical correspondence using correct English and proof-reading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Demonstrate ability to correctly spell, define, and pronounce medical office terminology and/or abbreviations
- Utilize computer productivity software for business applications
- Integrate medical office tasks such as insurance, coding, banking, telephone techniques, billing, and scheduling of appointments
- Apply learned skills and knowledge from the Medical Receptionist program in an actual or simulated medical setting
- Exhibit ethical behavior, a positive self-image, and professional conduct
- Develop a job search plan, prepare appropriate documents, and exhibit appropriate interview skills

Medical Secretary - 40 Credits

Diploma Program

The Medical Secretary transcribes dictation, prepares correspondence, records, and charts. Persons in this position need to know medical office terminology; be familiar with hospital, clinic, and laboratory procedures; and understand medical laws and ethics. In addition, the Medical Secretary may interact with patients, schedule appointments and meetings, work with patient files and records, and prepare insurance forms and billings.



A strong background in spelling, punctuation, grammar, and vocabulary is necessary to succeed in this program. Medical Secretaries must have fast and accurate typing skills, a good personal and professional working attitude, be detail-oriented, organized, eager to learn, willing and able to assume responsibility, and must exercise initiative and good judgment. Students planning a Medical Secretarial career should complete as many high school business courses as possible or plan to spend the beginning term in general secretary and core courses, particularly keyboarding, communications, and math classes as needed.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1415	Keyboarding I	4
ADSC1420	Business Communications	3
ADSC1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1610	Medical Office Terminology	3
ADSC1611	Medical Office Procedures I	3
ADSC1612	Medical Office Procedures II	3
ADSC1614	Health Insurance and Billing	3
ADSC1621	Medical Office Anatomy & Physiology I	3
ADSC1622	Medical Office Anatomy & Physiology II	3
ADSC1625	Medical Machine Transcription	4
ADSC1715	Word Processing	2
ADSC2695	Medical Secretary Capstone	1

Other Technical Credits:		
Business Electives		1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence and medical correspondence using correct English and proofreading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Apply ARMAindexing and filing procedures and rules appropriate in a medical setting
- Transcribe mailable dictated medical reports and documents using correct medical transcription skills
- Demonstrate ability to correctly spell, define, and pronounce medical office terminology and/or abbreviations
- Demonstrate proficiency with drug reference books
- Utilize computer productivity software for business applications
- Integrate medical office tasks such as insurance, coding, banking, telephone techniques, billing, and scheduling of appointments
- Apply learned skills and knowledge from the Medical Secretary program in an actual or simulated medical setting
- Exhibit ethical behavior, a positive self-image, and professional conduct
- Develop a job search plan, prepare appropriate documents, and exhibit appropriate interview skills

Medical Transcription - 30 credits Certificate Program

The Medical Transcription program prepares graduates for entry level positions in the field of medical transcription. An individual trained in medical transcription may pursue a career in a hospital setting, clinic, physician office, long term care setting, home health care, specialty settings or even in the home.

Courses consist of basic business courses such as computer keyboarding, word processing, business English, proofreading and communications. Technical courses include medical office termi-

nology, anatomy and physiology. We enhance transcription skills through the completion of several hours of in-class assignments transcribing numerous documents. At Lake Superior College, we teach transcription using both the tape method and the digital dictation system. This practicum provides realistic training in the field of Medical Transcription.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1415	Keyboarding I	4
ADSC1420	Business Communications	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1610	Medical Office Terminology	3
ADSC1611	Medical Office Procedures I	3
ADSC1612	Medical Office Procedures II	3
ADSC1621	Medical Office Anatomy & Physiology I	3
ADSC1622	Medical Office Anatomy & Physiology II	3
ADSC1625	Medical Machine Transcription	4
ADSC1715	Word Processing	2
ADSC1640	Keyboarding Drills/Medical Emphasis	1

Note: An internship is recommended as an elective. For those choosing to take an internship, LSC will work to set up an appropriate site based on availability in the health care field.

Office Assistant - 28 Credits Certificate Program

This program is designed to prepare the student for employment as an Office Assistant. Office Assistants perform a wide variety of office tasks. Duties often required are keyboarding/typing business correspondence, reports, forms, and other material; filing and retrieving documents and records; sorting and distributing mail; and answering telephones. Persons in these positions may use microcomputers, transcribing machines, calculating machines, and photocopiers.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1415	Keyboarding I	4
ADSC1416	Keyboarding II	4
ADSC1420	Business Communications	3
ADSC1421	Business Presentations	3
ADSC1422	Business Vocabulary/Proofreading	1
ADSC1430	Integrated Office Software Apps I	3
ADSC1440	General Office Procedures	3
ADSC1441	Bookkeeping	2
ADSC1450	Machine Transcription	1
ADSC1715	Word Processing	2
ADSC1718	Keyboarding Drills	1
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Plan and produce professional written business correspondence using correct English and proofreading skills
- Plan and deliver verbal presentations using correct English skills
- Demonstrate keyboarding production proficiency
- Apply ARMAindexing and filing procedures and rules
- Transcribe various types of material into mailable documents using correct English skills
- Exhibit ethical behavior, positive self-image, and professional conduct
- Utilize computer productivity software for business applications
- Develop a job search plan, appropriate documents, and exhibit appropriate interview skills
- Analyze and record business transactions, generate reports, and prepare financial statements

Paralegal Studies

Paralegal Studies - 64 Credits

Associate in Science Degree Program

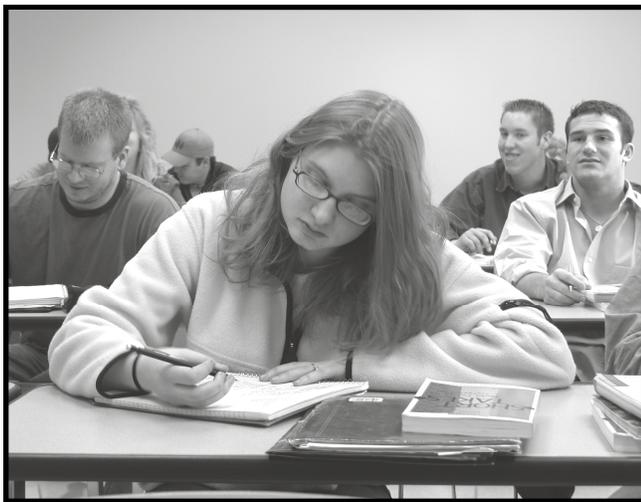
This program is designed to prepare students for transfer to a four-year institution in the legal field. A legal assistant or paralegal is a person, qualified by education, training, or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency, or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible. The American Bar Association states that the terms legal assistant and paralegal are used interchangeably. Paralegals may not give legal advice or otherwise engage in the unauthorized practice of law.

Paralegal work includes developing and modifying procedures used in the legal field, preparing routine legal documents, assisting in the preparation of cases for trial, investigating facts, researching, selecting, assessing, compiling, and using information from the law library and other references, and analyzing and handling procedural problems. Legal assistants may be employed by law firms, businesses, financial institutions, and title and escrow companies, or government agencies. Additional positions for which they may qualify include title examiner, trust officer, contract clerk, legal investigator, and law firm administrator.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
LGST1400	Legal Studies I: Terminology, Procedures, and Documentation	3
LGST1410	Legal Studies II: Research and Document Preparation	3
LGST1420	Business Law	3
LGST1430	Advanced Legal Research	3
COMM1105	Interpersonal Communications	3
ENGL1106	College Composition I	3
ENGL1109	College Composition II	3
PSYC1120	General Psychology	3

Elective Legal Studies Courses: Choose 12 credits of the following courses:

LGST1440	Constitutional Law	3
LGST1450	Contract Law	3
LGST1460	Criminal Law	3
LGST1470	Estate Planning: Wills, Trusts, and Probate	3
LGST1480	Family Law	3
LGST1490	Alternative Dispute Resolution: Mediation	3



LGST1500	Victim Advocacy	3
LGST1510	Bankruptcy Law	3

Elective Business Courses: Choose 9 credits of the following courses:

ACCT1400	Accounting Math	2
ACCT1500	Personal Finance	3
ACCT1520	Introduction to Financial Accounting	3
ACCT1530	Payroll Accounting	3
ADSC1420	Business Communications	3
ADSC1430	Integrated MS Office Software I	3
ADSC1431	Integrated MS Office Software II	3
ADSC1517	Computers in the Law Office	3
ADSC1715	Word Processing with MS Word	2
ADSC1719	Presentation Software (MS PowerPoint)	2
CIS1400	Introduction to Computers	2
CIS1406	Web Programming with HTML	2
CIS1407	Introduction to MS FrontPage	2
CIS1510	Microcomputer Database I (MS Access)	2
CIS1511	Microcomputer Database II (MS Access)	2
CIS1515	Microcomputer Spreadsheets I (MS Excel)	2
CIS1516	Microcomputer Spreadsheets II (MS Excel)	2
LGSTxxxx	Any LGST courses not taken as LGST electives	3

Minnesota Transfer Curriculum:

Communications	9
Social and Behavioral Sciences	5
Total Free Electives from MTC Goal Areas Natural Sciences, Mathematical/logical Reasoning, History, and Humanities and Fine Arts	19

Program Outcomes

Graduates will be able to demonstrate knowledge of:

- Legal terminology and analyze the history of the American legal system
- Demonstrate knowledge of court rules and procedures
- Understand attorney and paralegal ethics
- Demonstrate proper methods for conducting legal interviews and investigations
- Distinguish statutory law and case law; demonstrate the proper way to conduct legal research
- Prepare legal documents
- Classify the basic elements of and prepare an appellate brief
- Describe legal rights and duties of businesses; describe government regulation and the legal environment in which businesses operate
- Describe business organizations
- Describe and analyze varying types of legal research
- Locate legal information; and, depending on the electives chosen, demonstrate knowledge of the various elements and procedures associated with constitutional, contract, criminal, family, and bankruptcy law
- Understand and demonstrate fluency in elements associated with estate planning, victim advocacy, or alternative dispute resolution.

Paralegal Studies - 64 Credits

Associate in Applied Science Degree Program

This program is designed to prepare students for paraprofessional positions in the legal field. A legal assistant or paralegal is a person, qualified by education, training, or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency, or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible. The American Bar Association states that the terms legal assistant and paralegal are used interchangeably. Paralegals may not give legal advice or otherwise engage in the unauthorized practice of law.



Paralegal work includes developing and modifying procedures used in the legal field, preparing routine legal documents, assisting in the preparation of cases for trial, investigating facts, researching, selecting, assessing, compiling, and using information from the law library and other references, and analyzing and handling procedural problems. Legal assistants may be employed by law firms, businesses, financial institutions, and title and escrow companies, or government agencies. Additional positions for which they may qualify include title examiner, trust officer, contract clerk, legal investigator, and law firm administrator.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
LGST1400	Legal Studies I: Terminology, Procedures, and Documentation	3
LGST1410	Legal Studies II: Research and Document Preparation	3
LGST1420	Business Law	3
LGST1430	Advanced Legal Research	3
ENGL1106	College Composition I	3
ENGL1109	College Composition II	3

Elective Legal Studies Courses: Choose 12 credits of the following courses:

LGST1440	Constitutional Law	3
LGST1450	Contract Law	3
LGST1460	Criminal Law	3
LGST1470	Estate Planning: Wills, Trusts, and Probate	3
LGST1480	Family Law	3
LGST1490	Alternative Dispute Resolution: Mediation	3
LGST1500	Victim Advocacy	3
LGST1510	Bankruptcy Law	3

Elective Business Courses: Choose 24 credits of the following courses:

ACCT1400	Accounting Math	2
ACCT1500	Personal Finance	3
ACCT1520	Introduction to Financial Accounting	3
ACCT1530	Payroll Accounting	3
ADSC1420	Business Communications	3
ADSC1430	Integrated MS Office Software I	3
ADSC1431	Integrated MS Office Software II	3
ADSC1517	Computers in the Law Office	3
ADSC1715	Word Processing with MS Word	2
ADSC1719	Presentation Software (MS PowerPoint)	2
CIS1400	Introduction to Computers	2

CIS1406	Web Programming with HTML	2
CIS1407	Introduction to MS FrontPage	2
CIS1510	Microcomputer Database I (MS Access)	2
CIS1511	Microcomputer Database II (MS Access)	2
CIS1515	Microcomputer Spreadsheets I (MS Excel)	2
CIS1516	Microcomputer Spreadsheets II (MS Excel)	2
LGSTxxxx	Any LGST courses not taken as LGST electives	3

Minnesota Transfer Curriculum:

Communications	6
Total Free Electives from MTC Goal Areas	
Natural Sciences, Mathematical/Logical Reasoning, History, Social and Behavioral Sciences, and Humanities and Fine Arts	10

Program Outcomes

Graduates will be able to:

- Demonstrate knowledge of legal terminology and analyze the history of the American legal system
- Demonstrate knowledge of court rules and procedures
- Understand attorney and paralegal ethics
- Demonstrate proper methods for conducting legal interviews and investigations
- Distinguish statutory law and case law
- Demonstrate the proper way to conduct legal research
- Prepare legal documents
- Classify the basic elements of and prepare an appellate brief; describe legal rights and duties of businesses
- Describe government regulation and the legal environment in which businesses operate
- Describe business organizations
- Describe and analyze varying types of legal research
- Locate legal information; and, depending on the electives chosen, demonstrate knowledge of the various elements and procedures associated with constitutional, contract, criminal, family, and bankruptcy law
- Understand and demonstrate fluency in elements associated with estate planning, victim advocacy, or alternative dispute resolution.

Paralegal Studies -30 credits Certificate Program

This program is designed to prepare students for paraprofessional positions in the legal field. A legal assistant or paralegal is a person, qualified by education, training, or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency, or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible. The American Bar Association states that the terms legal assistant and paralegal are used interchangeably. Paralegals may not give legal advice or otherwise engage in the unauthorized practice of law.

Paralegal work includes developing and modifying procedures used in the legal field, preparing routine legal documents, assisting in the preparation of cases for trial, investigating facts, researching, selecting, assessing, compiling, and using information from the law library and other references, and analyzing and handling procedural problems. Legal assistants may be employed by law firms, businesses, financial institutions, and title and escrow companies, or government agencies. Additional positions for which they may qualify include title examiner, trust officer, contract clerk, legal investigator, and law firm administrator.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
LGST1400	Legal Studies I: Terminology, Procedures, and Documentation	3
LGST1410	Legal Studies II: Research and Document Preparation	3
LGST1420	Business Law	3
LGST1430	Advanced Legal Research	3

Elective Legal Studies Courses: Choose 12 credits of the following courses:

LGST1440	Constitutional Law	3
LGST1450	Contract Law	3
LGST1460	Criminal Law	3
LGST1470	Estate Planning: Wills, Trusts, and Probate	3
LGST1480	Family Law	3
LGST1490	Alternative Dispute Resolution: Mediation	3
LGST1500	Victim Advocacy	3
LGST1510	Bankruptcy Law	3

Elective Business Courses: Choose 6 credits of the following courses:

ACCT1400	Accounting Math	2
ACCT1500	Personal Finance	3
ACCT1520	Introduction to Financial Accounting	3
ACCT1530	Payroll Accounting	3
ADSC1420	Business Communications	3
ADSC1430	Integrated MS Office Software I	3
ADSC1431	Integrated MS Office Software II	3
ADSC1517	Computers in the Law Office	3
ADSC1715	Word Processing with MS Word	2
ADSC1719	Presentation Software (MS PowerPoint)	2
CIS1400	Introduction to Computers	2
CIS1406	Web Programming with HTML2	2
CIS1407	Introduction to MS FrontPage	2
CIS1510	Microcomputer Database I (MS Access)	2
CIS1511	Microcomputer Database II (MS Access)	2
CIS1515	Microcomputer Spreadsheets I (MS Excel)	2
CIS1516	Microcomputer Spreadsheets II (MS Excel)	2
LGSTxxxx	Any LGST courses not taken as LGST electives	3

Program Outcomes

Graduates will be able to:

- Demonstrate knowledge of legal terminology and analyze the history of the American legal system;
- Demonstrate knowledge of court rules and procedures
- Understand attorney and paralegal ethics
- Demonstrate proper methods for conducting legal interviews and investigations
- Distinguish statutory law and case law
- Demonstrate the proper way to conduct legal research
- Prepare legal documents;
- Classify the basic elements of and prepare an appellate brief
- Describe legal rights and duties of businesses
- Describe government regulation and the legal environment in which businesses operate
- Describe business organizations
- Describe and analyze varying types of legal research
- Locate legal information; and, depending on the electives chosen, demonstrate knowledge of the various elements and procedures associated with constitutional, contract, criminal, family, and bankruptcy law
- Understand and demonstrate fluency in elements associated with estate planning, victim advocacy, or alternative dispute resolution.

Professional Bookkeeper - 30 Credits

Certificate Program

The Professional Bookkeeper certificate is a one-year program designed to prepare the candidate for a career in the bookkeeping and accounting fields. This program emphasizes the double entry accounting system, federal income taxation, payroll taxation, computerized accounting systems, and other computerized business applications. Upon completion of the certificate, the student should be well prepared to sit for the Certified Bookkeeper exam. This comprehensive examination is administered by the American Institute of Professional Bookkeepers. Sitting for this professional exam in highly recommended, but not a requirement of the LSC program.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ACCT1400	Accounting Math	2
ACCT1420	Intro to Financial Accounting (Accounting Majors)	3
ACCT1500	Personal Finance	3
ACCT1530	Payroll Accounting	3
ACCT1550	Tax Accounting I	3
ACCT1600	Professional Bookkeeper Review Course	3
ACCT2410	Spreadsheet Concepts & Applications for Accounting	2
ACCT2430	Managerial Accounting	3
ACCT2460	Computerized Apps in Accounting	2
ADSC1420	Business Communications	3
ADSC1430	Integrated Software Apps I	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Successfully complete a comprehensive problem requiring the preparation of the basic financial statements
- Successfully complete a comprehensive problem requiring the preparation of an individual income tax return
- Successfully complete a comprehensive problem requiring all of the steps of the accounting cycle, using general ledger software

Quality - 14 Credits

Accelerated Certificate Program

The Quality Certificate is an individually available component of the Supervisory Management A.A.S. Degree program. It is specifically designed to provide employed students with the skills necessary to be successful in a position of supervisory leadership. Courses in the certificate program focus on skills and techniques directly related to quality issues.

The Quality Certificate Program is an accelerated program. Students entering the program commit to attending classes weekly following a preplanned sequence of courses and may complete their course work in one semester. Courses are scheduled "one at a time" in a recommended sequence meeting two evenings each week for three hours and for occasional Saturday sessions. Courses are offered in a highly interactive accelerated format that reduces classroom time and increases outside class activities. Students are expected to contribute a significant amount of time and effort outside of the scheduled class time in study groups, class preparation, individual study, and applying relevant concepts on the job.

Students will have the opportunity to increase their skills in continuous improvement strategies and tools, creative problem solving, work teams, project and meeting management, customer service, managing priorities, and many more quality related topics.



<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
SMGT1505	Quality & Improvement	3
SMGT1515	Building & Leading Effective Work Teams	3
SMGT1525	Project Management	3
SMGT1535	Creative Problem Solving	3
SMGT1555	Quality Capstone Project	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer-focused strategies
- Demonstrate analytical skills in identifying and solving problems
- Plan, prepare and deliver effective oral and written communications
- Utilize current technology
- Apply strategies for customer-focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Exercise creativity and innovation
- Demonstrate interpersonal communication skills

Sales and Marketing - 64 Credits

Associate in Applied Science Degree Program

The Sales and Marketing Associate of Applied Science Degree program combines technical sales and marketing related courses with liberal education courses, offering the graduate an excellent foundation for entry-level and advanced level employment in the sales and marketing fields. Students have the opportunity to participate in an internship related to their occupation goals. Also, membership in Delta Epsilon Chi (DEX), a national association of collegiate marketing students, is available through LSC's chapter.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ACCT1520	Financial Accounting: Double Entry	3
ADSC1420	Business Communications**	3
ADSC1421	Business Presentations**	3
ADSC1430	Integrated Office Software Applications I	3
ECON1150	Principles of Macroeconomics	3
ENGL1106	College Composition I	3
LGST1420	Business Law	3
MKTG1411	Sales Techniques & Applications	4
MKTG1421	Principles of Marketing	3
MKTG1431	Marketing Financial Techniques	3

MKTG1512	Consultative & Negotiation Selling Techniques**	3
MKTG2422	Marketing Applications**	3
MKTG2626	Retail Principles & Management	3
MKTG2760	Advertising/Sales Promotion**	3
MKTG2770	Principles of Mgmt. & Supervision	3
MKTG2797	Internship**	4
COMM1602	HR-Team-building in Career or Classroom	1
	Technical Electives	3

Minnesota Transfer Curriculum:

Social/Behavioral Science	3
Non-designated	7

**Courses that require prerequisites and/or instructor's consent.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Complete required transaction selling presentations using appropriate techniques, behaviors, and skills
- Complete required consultative and negotiation selling presentations using appropriate techniques, behaviors, and skills
- Create a comprehensive marketing plan using appropriate marketing techniques within the given parameters
- Create an advertising/promotion plan within the guidelines given
- Participate in professional communities
- Complete a personal resume to acceptable standards
- Implement required technology to appropriate standards
- Complete oral presentations to acceptable standards

Sales and Marketing - 60 Credits

Diploma Program

Students enrolled in the Sales and Marketing Diploma program prepare for related employment in a variety of businesses which utilize sales and marketing efforts. A concentration or emphasis can be added to the core program through electives in specialty areas that the student and advisor may determine appropriate. Membership in Delta Epsilon Chi (DEX), a national association of collegiate marketing students, is available to LSC's students that are interested in marketing.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ACCT1500	Personal Finance	3
ACCT1520	Financial Accounting: Double Entry	3
ADSC1420	Business Communications**	3
ADSC1421	Business Presentations**	3
ADSC1430	Integrated Office Software Applications I	3
LGST1420	Business Law	3
MKTG1411	Sales Techniques & Applications	4
MKTG1421	Principles of Marketing	3
MKTG1431	Marketing Financial Techniques	3
MKTG1512	Consultative & Negotiation Selling Techniques	3
MKTG2422	Marketing Applications**	3
MKTG2626	Retail Principles & Management	3
MKTG2653	Sales Management**	3
MKTG2760	Advertising/Sales Promotion**	3
MKTG2770	Principles of Mgmt. & Supervision	3
MKTG2797	Internship**	4
COMM1601	HR-The Individual in Career or Classroom	1
COMM1602	HR-Team-building in Career or Classroom	1

**Courses that require prerequisites and/or instructor's consent.

Other Technical Credits:

Technical Electives	6
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Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Complete required transaction selling presentations using appropriate techniques, behaviors, and skills
- Complete required consultative and negotiation selling presentations using appropriate techniques, behaviors, and skills
- Create a comprehensive marketing plan using appropriate marketing techniques within the given parameters
- Create an advertising/promotion plan within the guidelines given
- Participate in professional communities
- Complete a personal resume to acceptable standards
- Implement required technology to appropriate standards
- Complete oral presentations to acceptable standards

Sales Representative Certificate Program

26 Credits

The Sales Representative Certificate is intended to provide students a basic foundation for entry-level employment in selling occupations.

Course #	Course Title	Credits
ADSC1420	Business Communications**	3
ADSC1421	Business Presentations**	3
ADSC1430	Integrated Office Software Applications I	3
COMM1601	HR-The Individual in Career or Classroom	1
MKTG1411	Sales Techniques & Applications	4
MKTG1421	Principles of Marketing	3
MKTG1431	Marketing Financial Techniques	3
MKTG1512	Consultative & Negotiation Selling Techniques**	3
MKTG2422	Marketing Applications**	3

** Courses that require prerequisites and/or instructor approval.

Program Outcomes

- Complete required transaction selling presentations using appropriate techniques, behaviors, and skills.
- Complete required consultative and negotiation selling presentations using appropriate techniques, behaviors, and skills.
- Implement required technology to appropriate standards.
- Complete a personal resume to acceptable standards.

Supervisory Management - 60 Credits

Associate in Applied Science Accelerated Degree Program

The Supervisory Management AAS Accelerated Degree program is designed to provide working adults with the skills necessary to be successful in a position of supervisory leadership. Businesses and organizations today require high levels of supervisory and leadership competency. Graduates of the program can benefit by becoming qualified for advancement into a supervisory position, enhancing current skills for persons who are already supervising others, or for promotion into a position of greater leadership responsibility and influence.

The Supervisory Management AAS Degree Program is an accelerated program. Students entering the program commit to attending classes weekly following a preplanned sequence of courses and may complete their course work in two years. Courses are scheduled "one at a time" in a recommended sequence meeting two evenings each week for three hours and for occasional Saturday sessions. Courses are offered in a highly interactive accelerated format that reduces classroom time and increases outside class activities. Students are expected to contribute a significant amount of time and effort outside of the scheduled class time in study groups, class preparation, individual study, and applying relevant concepts on the job. Completion time for the program can be reduced if applicable college credits are available to be transferred from accredited sources.



The Supervisory Management AAS Accelerated Degree is awarded to students who successfully complete the Supervisory Leadership Certificate, Quality Certificate, Human Resource Development Certificate, and required general education courses.

Students will have the opportunity to increase their skills in leadership, communications, team building, quality, managing change, employee motivation, creative problem solving, performance management, coaching, managing priorities, building productive working relationships, project management, conducting effective meetings, and many more supervisory leadership techniques and tools.

General education courses are not included in the accelerated format and are not, therefore, included in the sequence of courses.

In order to graduate in two years, general education courses need to be taken concurrent with the program courses.

Course #	Course Title	Credits
SMGT1400	Supervisory Leadership	3
SMGT1405	Strategies For Personal Leadership	3
SMGT1415	Leadership Development & Ethics	3
SMGT1425	Managing Time, Change & Stress	3
SMGT1455	Leadership Capstone Project	2
SMGT1505	Quality & Improvement	3
SMGT1515	Building & Leading Effective Work Teams	3
SMGT1525	Project Management	3
SMGT1535	Creative Problem Solving	3
SMGT1555	Quality Capstone Project	2
SMGT1605	Performance Management & Coaching	3
SMGT1615	Employment Law & Occupational Safety	3
SMGT1625	Budget Analysis & Cost Control	3
SMGT1635	Employee Training & Development	3
SMGT1655	HRD Capstone Project	2
SMGT1700	Personal Portfolio Design	1
SMGT1705	Accelerated Learning Concepts & Strategies	2

Minnesota Transfer Curriculum:

Communications	3
Humanities	3
Social Sciences	3
Math/Science	3
Non-designated	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer-focused strategies
- Demonstrate analytical skills in identifying and solving problems
- Understand contemporary behavior and apply human relations skills
- Develop and implement change strategies
- Demonstrate leadership skills and identify approaches to motivation used to achieve a productive work environment
- Apply marketing, management, and organizational theories in a supervisory setting
- Apply human resources management practices
- Plan, prepare and deliver effective oral and written communications
- Demonstrate financial management skills
- Utilize current technology
- Apply strategies for customer-focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Exercise creativity and innovation
- Demonstrate interpersonal communication skills

Leadership - 14 Credits Accelerated Certificate Program

The Leadership Certificate is an individually available component of the Supervisory Management A.A.S. Degree program. It is specifically designed to provide employed students with the skills necessary to be successful in a position of supervisory leadership. Courses in the certificate program focus on skills and techniques directly related to supervisory leadership issues.

The Leadership Certificate Program is an accelerated program. Students entering the program commit to attending classes weekly following a preplanned sequence of courses and may complete their course work in one semester. Courses are scheduled "one at a time" in a recommended sequence meeting two evenings each week for three hours and for occasional Saturday sessions. Courses are offered in a highly interactive accelerated format, that reduces classroom time and increases outside class activities. Students are expected to contribute a significant amount of time and effort outside of the scheduled class time in study groups, class preparation, individual study, and applying relevant concepts on the job.

Students will have the opportunity to increase their skills in leadership, interpersonal skills, workplace ethics, managing change, resolving conflict, developing productive work relationships, and many more supervisory leadership related topics.

Course #	Course Title	Credits
SMGT1400	Supervisory Leadership	3
SMGT1405	Strategies For Personal Leadership	3
SMGT1415	Leadership Development & Ethics	3
SMGT1425	Managing Time, Change & Stress	3
SMGT1455	Leadership Capstone Project	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Apply customer focused strategies
- Demonstrate analytical skills in identifying and solving problems
- Understand contemporary behavior and apply human relations skills
- Demonstrate leadership skills and identify approaches to motivation used to achieve a productive work environment

- Apply marketing, management, and organizational theories in a supervisory setting
- Plan, prepare and deliver effective oral and written communications
- Utilize current technology
- Apply strategies for customer-focused decisions to individual supervisory responsibilities affecting service, quality, and productivity
- Demonstrate administrative management skills
- Demonstrate interpersonal communication skills

Computer Careers

Computer Careers Program Prerequisites

(Applies to all degree, diploma and certificate programs):

- Appropriate placement test score or concurrent enrollment in ENGL0460.
- Appropriate placement test score or concurrent enrollment in READ0460.
- Appropriate placement test score or concurrent enrollment in MATH 0470.
- Keyboarding skills of 20 wpm with 2 or less errors or passing grade in ADSC1710 or ADSC1711.

Business and Technology - 61 Credits

Associate in Science Degree Program

This program will prepare students for advanced study in fields of information and computer technology. Learning goals include: understanding computer technology and industries; understanding the impact of computer technology on society; understanding the systems life cycle and software design concepts and practices; and understanding theoretical concepts of computer sciences.

Course #	Course Title	Credits
Business Core:		
ACCT1400	Accounting Math	2
ACCT1520	Introduction to Financial Accounting	3
ADSC1420	Business Communications	3
LGST1420	Business Law	3
	Technical Electives (choose from ACCT, ADSC, MKTG, or SMGT)	3
Technical Core:		
Computer Literacy, A+ Technician, Certificate (15 credits) and 16 Technical Elective		
	(choose from CIS, ACCT, ADSC, MKTG, or SMGT)	1
	OR	
CIS2985	Information Technology Practicum	16

General Education Courses (Minnesota Transfer Curriculum): 31

COMM1105	Interpersonal Communications	3
ENGL1106	College Composition I	3
ENGL1109	College Composition II	3
MATH1100	College Algebra	4
PSYC1120	General Psychology	3
SOC1111	Introduction to Sociology	3

Select a minimum of one course from each of the goal areas listed below:

Natural Sciences, History, Humanities & Fine Arts	12
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Program Outcomes

- This is a transfer degree, intended to prepare students to continue their studies at a baccalaureate institution.



CISCO Certified Network Associate - 18 Credits Certificate Program

This program prepares students for the exam needed to obtain a Cisco Certified Network Associate (CCNA) certification. Students will gain theoretical understanding of networking principles, and get hands-on experience using Cisco routers and switches. Through the use of Cisco Networking Academy course materials, students will learn how to plan, implement, and manage local and wide-area networks.

Course ID#	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
CIS2946	CISCO Networking I	3
CIS2947	CISCO Networking II	3
CIS2948	CISCO Networking III	3
CIS2949	CISCO Networking IV	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Describe the OSI Reference Model, layered communications principles, and routing, bridging and switching principles and devices, and use these concepts effectively in verbal and written communication
- Manage Cisco router hardware and the Cisco Internet Operating System (IOS), including planning, installation, configuration, management, upgrading and troubleshooting of routers and switches
- Analyze organizational networking needs, and design and implement Local-Area and Wide-Area Networks (LANs and WANs), including hardware and software configuration and management, and security (access control)
- Use project management methodologies to plan, cost, and implement network systems

Computer Literacy, A+ Technician - 15 Credits Certificate Program

The Computer Literacy, A+ Technician Certificate Program is designed to prepare participants with foundation level skills to help them determine whether a job in the computer field would be a good career choice. Completion of the program should also prepare the student for an entry-level job in the field of PC repair. The 15-credit certificate can easily be extended into any of the following 30-credit certificate programs: Computer Programming, Help Desk Analyst, or Web Developer.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN2465	A+ PC Service & Support	3
	Technical Electives	8

Technical Electives (choose 8 credits from the following):

CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1415	Introduction to Programming Principles	4
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS1517	Microcomputer Spreadsheets II	2

Program Outcome

- Install and troubleshoot hardware and operating systems components successfully

Computer Networking - 28 Credits Certificate Program

The Computer Networking Certificate Program is designed to prepare participants with foundation level skills for a job in computer networking. The curriculum in this program will help prepare you for the following professional certifications: A+, Network+, CNA, CCNA, and MCP. The 28-credit certificate can easily be extended into either the 48-credit Professional Computer Networking Diploma or 64-credit Professional Computer Networking Associate in Applied Science Degree Program.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1440	Network Administration: Netware	3
CIS1521	Microcomputer Operating Systems	2
CIS2745	Network Administration: UNIX	3
CIS2946	CISCO Networking I	3
CIS2947	CISCO Networking II	3
CIS2948	CISCO Networking III	3
CIS2949	CISCO Networking IV	3
CIS2950	Network Administration: Windows Client	3
ELTN2465	Hardware Service & Support PC Lab	3

Computer Programmer - 30 Credits Certificate Program

The Computer Programmer Certificate Program is designed to prepare participants with foundation level skills for a job in computer programming. The curriculum in this program offers skills development in applications, database management, and programming languages such as C++, Visual Basic, and several others. The 30-credit certificate can easily be extended into either the 48-credit Computer Programming Diploma or 64-credit Computer Programming Associate in Applied Science.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
AND		
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
OR		
CIS1510	Microcomputer Database I	(2)
CIS1511	Microcomputer Database II	(2)
AND		
CIS1521	Microcomputer Operating Systems	2
ELTN2465	A+ PC Service & Support	3

CIS1441	Mini/Mainframe Operating Systems I	3
CIS16xx	Beginning Programming Language	4
CIS26xx	Advanced Programming Language	4
CIS2730	Database Management	4

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Using a semester II advanced programming language, student will be able to use good programming techniques to automate a business process.

Computer Programmer - 48 Credits

Diploma Program

This program offers skills development in computer applications, database management, system analysis and design, and data communications. Students learn to design, write, test, document, and implement computer programs. Programming is taught in both the mainframe and microcomputer environment with students choosing the environment in which they would like to develop programming skills.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
AND		
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
OR		
CIS1510	Microcomputer Database I	(2)
CIS1511	Microcomputer Database II	(2)
AND		
CIS1521	Microcomputer Operating Systems	2
ELTN2465	A+ PC Service & Support	3
CIS1441	Mini/Mainframe Operating Systems I	3
CIS16xx	Beginning Programming Language	4
CIS26xx	Advanced Programming Language	4
CIS2730	Database Management	4
CIS16xx	Beginning Programming Language	4
CIS26xx	Advanced Programming Language	4
CIS2745	Network Administration: UNIX	3
CIS2740	Systems Analysis and Design	4
AND		
CIS2742	Applications Programming	2
OR		
CIS2980	Internship	2
AND		
COMM1601	HR-The Individual in Career or Classroom	1

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Using a semester II advanced programming language, student will be able to use good programming techniques to automate a business process.
- Using a semester III advanced programming language (different from semester II), student will be able to use good programming techniques to automate a business process.
- Student will be able to use problem solving techniques to create a computer program or programs to solve business problems.

Computer Programmer - 64 Credits

Associate in Applied Science Program

This program offers skills development in computer applications, database management, system analysis and design, and data communications. Students learn to design, write, test, document, and implement computer programs. Programming is taught in both the mainframe and microcomputer environment with students choosing the environment in which they would like to develop programming skills.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
AND		
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
OR		
CIS1510	Microcomputer Database I	(2)
CIS1511	Microcomputer Database II	(2)
AND		
CIS1521	Microcomputer Operating Systems	2
ELTN2465	A+ PC Service & Support	3
CIS1441	Mini/Mainframe Operating Systems I	3
CIS16xx	Beginning Programming Language	4
CIS26xx	Advanced Programming Language	4
CIS2730	Database Management	4
CIS16xx	Beginning Programming Language	4
CIS26xx	Advanced Programming Language	4
CIS27345	Network Administration: UNIX	3
CIS2740	Systems Analysis and Design	4
AND		
CIS2742	Applications Programming	2
OR		
CIS2980	Internship	2
AND		
MATH1100	College Algebra	4
COMM1601	HR-The Individual in Career or Classroom	1
	Communications	3
	Social/Behavioral Sciences	3
	Humanities	3
	General Education	3

Minnesota Transfer Curriculum:

Select at least one course from the following:

ENGL1106	College Composition I	3
COMM1105	Interpersonal Communication	(3)
COMM1110	Methods of Public Speaking	(3)
MATH1100	College Algebra	4

Select at least one course from the following:

ECON1150	Principles of Economics: Macroeconomics	3
ECON1160	Principles of Economics: Microeconomics	(3)
PSYC1120	General Psychology	(3)
PSYC1135	Human Development	(3)
SOC1111	Introduction to Sociology	(3)

Select at least one course from the following:

ENGL1109	College Composition II	3
PHIL1125	Logic	(3)
PHIL1130	Ethics	(3)
PHIL1140	Critical Thinking	(3)

General Education - other:

Select from Communication, Mathematical/Logical Reasoning, History and the Social and Behavioral Sciences, or Humanities and Fine Arts

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Using a semester II advanced programming language, student will be able to use good programming techniques to automate a business process.
- Using a semester III advanced programming language (different from semester II), student will be able to use good programming techniques to automate a business process.
- Student will be able to use problem solving techniques to create a computer program or programs to solve business problems.

Computer Technology - 61 Credits

Associate in Science Degree

This program will prepare students for advanced study in fields of information and computer technology. Learning goals include: understanding computer technology and industries; understanding the impact of computer technology on society; understanding the systems life cycle and software design concepts and practices; and understanding theoretical concepts of computer sciences.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
Computer Technology Core: 30		
Help Desk Analyst Certificate (30 credits)		
OR		
Web Developer, Certificate (30 credits)		
OR		
Computer Programmer Certificate (30 credits)		
OR		
Computer Networking Certificate (28 credits)		
AND		
CIS Electives (2 credits)		
OR		
CIS2985 Information Technology Practicum (16 credits)		
AND		
CIS Electives (14 credits)		

General Education Courses (Minnesota Transfer Curriculum): 31		
ENGL1106	College Composition I	3
ENGL1109	College Composition II	3
MATH1100	College Algebra	4
PSYC1120	General Psychology	3
SOC1111	Introduction to Sociology	3
COMM1105	Interpersonal Communications	3
Select a minimum of one course from each of the goal areas listed below:		
Natural Sciences, History, Humanities & Fine Arts		12

Program Outcomes

- This is a transfer degree, intended to prepare students to continue their studies at a baccalaureate institution.

Help Desk Analyst - 30 credits Certificate Program

The Help Desk Analyst Certificate Program is designed to prepare participants with foundation level skills for a job as a computer help desk analyst. The curriculum in this program offers skills development in computer hardware, software applications, database management, the basics of computer programming and networking, and help desk administration techniques. The 30-credit certificate can easily be extended into either the 48-credit Microcomputer Support Specialist Diploma or 64-credit Microcomputer Support Specialist Associate in Applied Science.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
CIS1440	Network Administration: Netware	3
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS1521	Microcomputer Operating Systems	2
CIS2510	Help Desk Methods	2
CIS2515	Help Desk Lab	2
ELTN2465	A+ PC Service & Support	3
ELTN2505	Networking + Service and Support	3
COMM1601	HR-The Individual in Career or Classroom	1
	Technical Electives	2

Technical Electives (choose 2 credits from the following):

CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1517	Microcomputer Spreadsheets II	2

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Participate in team Help Desk support services.

Microcomputer Support Specialist - 48 Credits Diploma Program

This program provides the technical support skills to assist untrained users in their microcomputer hardware and software needs. Hardware skills include selection, maintenance, configuration and troubleshooting of microcomputers, data communication equipment/networks and printers. Software skills include customizing, upgrading, training, and user support of operating systems and applications such as spreadsheets, database packages, word processing, and help-desk management software.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1420	Business Communications	3
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1440	Network Administration: Netware	3
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS1521	Microcomputer Operating Systems	2
CIS1621	Introduction to C++ Programming Language	4
CIS2510	Help Desk Methods	2
CIS2515	Help Desk Lab	2
CIS2745	Network Administration: UNIX	3
ELTN2465	A+ PC Service & Support	3
ELTN2505	Networking + Service and Support	3
COMM1601	HR-The Individual in Career or Classroom	1
	Technical Electives	6

Technical Electives (choose 6 credits from the following):

CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1412	Web Design, Graphics, and Animation	4
CIS1517	Microcomputer Spreadsheets II	2
CIS2742	Applications Programming	2
CIS2980	Internship	2

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Participate in team Help Desk support services.
- Be proficient in a variety of Microcomputer software applications
- Understand general networking terminology and concepts and be able to use these effectively in verbal and written communication.

Microcomputer Support Specialist - 64 Credits Associate in Applied Science Degree

This program provides the technical support skills needed to assist untrained users in their microcomputer needs. Skill development includes both microcomputer hardware and software. Hardware skills include selection, installation, configuration, maintenance, and repair management of processors, printers, and data communication/networks. Software skills include software selection, installation, customizing, upgrading, training, and user support. Students are also given the opportunity to practice in a help desk environment. Additional skills in effective communication, both written and oral, are incorporated within the program.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1420	Business Communications	3
CIS1400	Introduction to Computers	2
CIS1415	Introduction to Programming Principles	4
CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1440	Network Administration: Netware	3
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS1521	Microcomputer Operating Systems	2
CIS1621	Introduction to C++ Programming Language	4
CIS2510	Help Desk Methods	2
CIS2515	Help Desk Lab	2
CIS2745	Network Administration: UNIX	3
ELTN2465	A+ PC Service & Support	3
ELTN2505	Networking + Service and Support	3
COMM1601	HR-The Individual in Career or Classroom	1
MATH1100	College Algebra	4
	Communication	3
	Social/Behavioral Sciences	3
	Humanities	3
	General Education	3

Technical Electives (choose 6 credits from the following):

CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1412	Web Design, Graphics, and Animation	4
CIS1517	Microcomputer Spreadsheets II	2
CIS2742	Applications Programming	2
CIS2980	Internship	2

Minnesota Transfer Curriculum:

Select at least one course from the following:

ENGL1106	College Composition I	3
COMM1105	Interpersonal Communication	(3)
COMM1110	Methods of Public Speaking	(3)
MATH1100	College Algebra	4



Select at least one course from the following:

ECON1150	Principles of Economics: Macroeconomics	3
ECON1160	Principles of Economics: Microeconomics	(3)
PSYC1120	General Psychology	(3)
PSYC1135	Human Development	(3)
SOC1111	Introduction to Sociology	(3)

Select at least one course from the following:

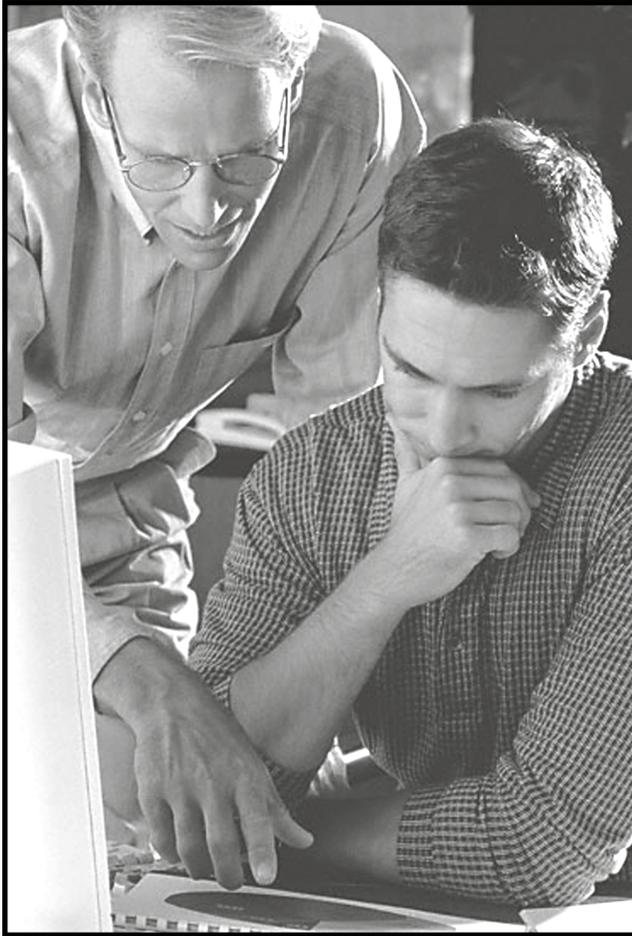
ENGL1109	College Composition II	3
PHIL1125	Logic	(3)
PHIL1130	Ethics	(3)
PHIL1140	Critical Thinking	(3)

General Education - other:

Select from Communication, Mathematical/Logical Reasoning, History and the Social and Behavioral Sciences, or Humanities and Fine Arts	3
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Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Participate in team Help Desk support services.
- Be proficient in a variety of Microcomputer software applications
- Understand general networking terminology and concepts and be able to use these effectively in verbal and written communication.



Microcomputer Office User Specialist - 12 credits Certificate Program

This program is designed for the business professional who wishes to be competent with Microsoft Office software applications. Students must be proficient in basic keyboarding skills prior to starting this program. Enrollment notes: Windows Software (CIS1525) is the prerequisite for all other courses for this certificate.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1715	Word Processing	
ADSC1719	Presentation Software	2
CIS1510	Microcomputer Database I (Access)	2
CIS1515	Microcomputer Spreadsheets I	2
	Technical Electives	4

Technical Electives: (choose 4 credits from the following):

ADSC1716	Advanced Word Processing	2
CIS1407	Introduction to FrontPage	2
CIS1511	Microcomputer Database II (Access)	2
CIS1517	Microcomputer Spreadsheets II (Excel)	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Understand core knowledge of keyboarding skills
- Demonstrate basic skills of the Microsoft Office suite including Windows software

Professional Computer Networking (MCSA/CCNA) 48 Credits

Diploma Program

This program trains students to provide technical support necessary for computer networks in a business environment. Skill development includes the fundamentals of data processing, data communications, network protocol, hardware, and operating systems. Hardware skills include selection, installation, configuration, repair, and maintenance of computer and data communications equipment. Operating systems may include the most current versions of DOS, Windows, UNIX, and Novell. Areas of knowledge also will encompass client/server architecture, Local Area Networks (LANs), and Wide Area Networks (WANs). This program is designed to prepare students for certifications such as Novell's CAN, Microsoft's MCP and MCSA, CISCO's CCNA, and Comp TIA's A+ and Network+.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1440	Network Administration: Network	3
CIS1521	Microcomputer Operating Systems	2
CIS2745	Network Administration: UNIX	3
CIS2946	CISCO Networking I	3
CIS2947	CISCO Networking II	3
CIS2948	CISCO Networking III	3
CIS2949	CISCO Networking IV	3
CIS2950	Network Administration: Windows Client	3
CIS2952	Network Administration: Windows Server	4
CIS2953	Network Administration: Windows	

	Network Management	3
CIS2980	Internship	1
ELTN2410	Media and Cabling Theory	1
ELTN2415	Media and Cabling Lab	2
ELTN2465	A+ PC Service and Support	3
ELTN2505	Networking + Service and Support	3

	Technical Electives: (choose 6 credits from the following):	6
CIS2845	Network Administration: Advanced UNIX	3
CIS2954	Network Administration: Windows Network Infrastructure	3
CIS2962	Network Administration: Microsoft Exchange Server	3
CIS2963	Network Administration: Microsoft Proxy Server	3
CIS2999	Special Topics in Computer Networking	1-3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Understand general networking terminology and concepts, and be able to use these effectively in verbal and written communication
- Plan, install, configure, manage and troubleshoot networking hardware (e.g., servers, clients, printers, switches, routers, and other devices) and software (e.g., network operating systems, client programs, and other networking server and application software)
- Analyze organizational networking needs, and to design, implement, and administer network solutions using appropriate network technologies (e.g., directory infrastructure, protocols, network services, and security methods and systems)

Professional Computer Networking (MCSA/CCNA) 64 Credits

Associate in Applied Science Degree Program

This program trains students to manage networks in a business environment. Students will learn basic network communications and protocols, hardware, and operating systems concepts and develop skills with popular network operating systems like Novell's Netware, Windows Server, and UNIX. Students in this program choose from one of three tracks. The first year is identical for all students. In the second year, students choose a Novell, Microsoft, or Generalist track. The program is designed to prepare students for certifications such as Novell's CNA and CNE, Microsoft's MCP and MCSA, CISCO's CCNA, and CompTIA's A+ and Network+.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1440	Network Administration: Netware	3
CIS1521	Microcomputer Operating Systems	2
CIS2745	Network Administration: UNIX	3
CIS2946	CISCO Networking I	3
CIS2947	CISCO Networking II	3
CIS2948	CISCO Networking III	3
CIS2949	CISCO Networking IV	3
CIS2950	Network Administration: Windows Client	3
CIS2952	Network Administration: Windows Server	4
CIS2953	Network Administration: Windows	4
Network Management		3
CIS2980	Internship	1
ELTN2410	Media and Cabling Theory	1
ELTN2415	Media and Cabling Lab	2
ELTN2465	A+ PC Service and Support	3
ELTN2505	Networking + Service and Support	3
MATH1100	College Algebra	4
	Technical Electives	6
	Communication	3
	Social/Behavioral Sciences	3
	Humanities	3
	General Education - other	3
Technical Electives: (choose 6 credits from the following):		6
CIS2845	Network Administration: Advanced UNIX	3
CIS2954	Network Administration: Windows Network Infrastructure	3
CIS2962	Network Administration: Microsoft Exchange Server	3
CIS2963	Network Administration: Microsoft Proxy Server	3
CIS2999	Special Topics in Computer Networking	1-3
Minnesota Transfer Curriculum:		
Select at least one course from the following:		
ENGL1106	College Composition I	3
COMM1105	Interpersonal Communication	(3)
COMM1110	Methods of Public Speaking	(3)
MATH1100	College Algebra	4
Select at least one course from the following:		
ECON1150	Principles of Economics: Macroeconomics	3
ECON1160	Principles of Economics: Microeconomics	(3)
PSYC1120	General Psychology	(3)
PSYC1135	Human Development	(3)
SOC1111	Introduction to Sociology	(3)
Select at least one course from the following:		
ENGL1109	College Composition II	3
PHIL1125	Logic	(3)

PHIL1130	Ethics	(3)
PHIL1140	Critical Thinking	(3)

General Education - other:

Select from Communication, Mathematical/Logical Reasoning, History and the Social and Behavioral Sciences, or Humanities and Fine Arts

3

Program Outcomes

- Understand general networking terminology and concepts, and be able to use these effectively in verbal and written communication
- Plan, install, configure, manage and troubleshoot networking hardware (e.g., servers, clients, printers, switches, routers, and other devices) and software (e.g., network operating systems, client programs, and other networking server and application software)
- Analyze organizational networking needs, and to design, implement, and administer network solutions using appropriate network technologies (e.g., directory infrastructure, protocols, network services, and security methods and systems)

Web Developer - 30 Credits

Certificate Program

The Web Developer Certificate Program is designed to prepare participants with foundation level skills for website development. The program will help prepare you for an entry-level position utilizing web-based programming skills. The 30-credit certificate can easily be extended into either the 48-credit Web Developer Diploma or 64-credit Web Developer Associate in Applied Science.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1410	Web Site Design and Maintenance	2
CIS1412	Web Design, Graphics, and Animation	4
CIS1415	Introduction to Programming Principles	4
CIS1419	Introduction to E-Commerce	2
CIS1521	Microcomputer Operating Systems	2
CIS1560	Web Server Application	3
CIS2635	Internet Programming Language	4
ELTN2465	A+ PC Service & Support	3

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Successfully design, implement, host a web page that incorporates appropriate use of graphics and animation

Web Developer - 48 Credits

Diploma Program

This program offers skill development in web development applications, e-commerce concepts, and web page implementation. Students learn to design, write, test, document, and implement web-based programs.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1408	Dynamic HTML/XML	3
CIS1410	Web Site Design and Maintenance	2
CIS1412	Web Design, Graphics, and Animation	4
CIS1415	Introduction to Programming Principles	4
CIS1419	Introduction to E-Commerce	2

CIS1521	Microcomputer Operating Systems	2
CIS1560	Web Server Application	3
CIS1621	Introduction to C++ Programming Language	4
CIS2530	Web Application Development	3
CIS2635	Internet Programming Language	4
CIS2636	JavaScript Programming	3
CIS2637	CGI Programming	1
ELTN2465	A+ PC Service & Support	3
	Technical Electives	4

Technical Electives (choose 4 credits from the following):

CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS2621	Advanced C++ Programming Language	4

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Successfully design, implement, host a web page that incorporates appropriate use of graphics and animation
- Design and implement web-based application.
- Use web-based programming languages in a web site.

Web Developer - 64 Credits

Associate in Applied Science Program

This program offers skill development in web development applications, e-commerce concepts, and web page implementation. Students learn to design, write, test, document, and implement web-based programs. Additional skills in effective communication, both oral and written, are incorporated throughout the program.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction to Computers	2
CIS1406	Web Programming w/HTML	2
CIS1407	Introduction to FrontPage	2
CIS1408	Dynamic HTML/XML	3
CIS1410	Web Site Design and Maintenance	2
CIS1412	Web Design, Graphics, and Animation	4
CIS1415	Introduction to Programming Principles	4
CIS1419	Introduction to E-Commerce	2
CIS1521	Microcomputer Operating Systems	2
CIS1560	Web Server Application	3
CIS1621	Introduction to C++ Programming Language	4
CIS2530	Web Application Development	3
CIS2635	Internet Programming Language	4
CIS2636	JavaScript Programming	3
CIS2637	CGI Programming	1
ELTN2465	A+ PC Service & Support	3
MATH1100	College Algebra	4
	Communications	3
	Social/Behavioral Sciences	3
	Humanities	3
	General Education	3

Technical Electives (choose 4 credits from the following):

CIS1417	Beginning Oracle	2
CIS1418	Advanced Oracle	2
CIS1510	Microcomputer Database I	2
CIS1511	Microcomputer Database II	2
CIS1515	Microcomputer Spreadsheets I	2
CIS2621	Advanced C++ Programming Language	4

Minnesota Transfer Curriculum:

Select at least one course from the following:

ENGL1106	College Composition I	3
COMM1105	Interpersonal Communication	(3)
COMM1110	Methods of Public Speaking	(3)
MATH1100	College Algebra	4

Select at least one course from the following:

ECON1150	Principles of Economics: Macroeconomics	3
ECON1160	Principles of Economics: Microeconomics	(3)
PSYC1120	General Psychology	(3)
PSYC1135	Human Development	(3)
SOC1111	Introduction to Sociology	(3)

Select at least one course from the following:

ENGL1109	College Composition II	3
PHIL1125	Logic	(3)
PHIL1130	Ethics	(3)
PHIL1140	Critical Thinking	(3)

General Education - other:

Select from Communication, Mathematical/Logical Reasoning, History and the Social and Behavioral Sciences, or Humanities and Fine Arts

3

Program Outcomes

- Install and troubleshoot hardware and operating systems components successfully
- Successfully design, implement, host a web page that incorporates appropriate use of graphics and animation
- Design and implement web-based application.
- Use web-based programming languages in a web site.



Health Care

Background Study for all Students in Clinical Placements or in direct contact with Patients/Residents:

Minnesota law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. Failure to participate in a clinical placement required by the academic program could result in ineligibility to qualify for a degree in that program.

Students attending clinicals at a Wisconsin facility will be required to have a Wisconsin background study at a cost of \$7.50.

Dental Hygiene - 78 Credits **Associate in Applied Science Degree Program**

The Dental Hygiene program provides academic and clinical educational opportunities for capable individuals to acquire the knowledge, skills, and attitude for the professional practice of dental hygiene. The curriculum focuses on basic sciences, as well as essential technical and clinical skills in preparation for providing preventive dental hygiene services to the public. Students have the opportunity to prepare for a variety of career opportunities in private dental offices, schools, hospitals, clinics, public health agencies, and the private business sector.

Due to the nature of the clinical experiences in the dental hygiene program, students will be participating in a work environment that has the potential of exposure to bloodborne pathogens. All students accepted into the dental hygiene program are provided with written policy and instruction on infection control protocol to reduce the risk of disease transmission. The program complies with all institutional, local, state and federal policies. Policies and procedures on the dental hygiene program's infection control protocol are available to all applicants upon request. Other work-related disorders associated with the practice of dental hygiene could result from repetitive activities and exposure to high decibel sounds. Advancements in design and technology in the profession are continually evolving to minimize the effects.

The program in dental hygiene is accredited by the Commission on Dental Accreditation (and has been granted the accreditation status of "approval without reporting requirements"). The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation may be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

Pre-Technical Course Requirements:

Course #	Course Title	Credits
BIOL1140	Human Anatomy and Physiology I	4
BIOL1141	Human Anatomy and Physiology II	4
BIOL1170	Microbiology	3
CHEM1110	Aspects of Chemistry I	3
ENGL1106	College Composition I	3
PSYC1120	General Psychology	3
OR		
PSYC1135	Developmental Psychology	(3)

Prior to taking any DENH courses, all courses listed above must be completed with a grade of C or better, with an overall G.P.A. of 2.4 or better and complete 20 hours of a shadowing experience in a dental office setting prior to taking any DENH courses. If there are more than 18 qualified applicants, admission is by date of application.

Course #	Course Title	Credits
DENH1401	Dental Anatomy	2
DENH1405	Developmental Head & Neck Anatomy	2
DENH1420	Dental Hygiene Theory & Practice I	5
DENH1505	General & Oral Pathology	2
DENH1511	Dental Materials	4
DENH1520	Dental Hygiene Theory II	2
DENH1528	Dental Hygiene Practice II	4
DENH1530	Dental Radiology	3
DENH1560	Periodontology I	1
DENH2401	Pharmacology for the Dental Hygienist	2
DENH2420	Dental Hygiene Theory III	2
DENH2428	Dental Hygiene Practice III	6
DENH2431	Radiographic Interpretation	2
DENH2460	Periodontology II	2
DENH2501	Pain Management	1
DENH2503	Dental Hygiene Seminar	1
DENH2520	Dental Hygiene Theory IV	1
DENH2528	Dental Hygiene Practice IV	6
DENH2550	Community Dental Health	2
HLTH1210	Nutrition	2
COMM1100	Fundamentals of Human Communication	3
OR		
COMM1110	Methods of Public Speaking	(3)
OR		
COMM1105	Interpersonal Communication	(3)
SOC1111	Intro to Sociology	3
Elective:		
DENH2590	Dental Hygiene National Board Review	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Provide current comprehensive dental hygiene services
- Interact effectively with patients, peers and dental health care members utilizing professional, written and oral communication
- Develop an identity of self, supportive of continuous learning and professional endeavor
- Exhibit ethical behavior consistent with professional conduct

Gerontology - 13 credits

The Gerontology Certificate program is designed to provide individuals working with geriatric populations a foundation of understanding of the biological, psychological, and cognitive changes that occur with aging and the adaptive strategies that may assist elders to meet these needs. The certificate is designed to enhance or complement other programs of including nursing, social work, occupations therapy, physical therapy, psychology, and ergonomics.

Course #	Course Title	Credits
ALTH2000	Lifestyles for Aging Well	3
ALTH2002	Therapeutic Interventions with Elders	2
ALTH2004	Dementia and Care Giving	2
ALTH2006	Aging: Physiology and Function	2
ALTH2008	Special Topics in Gerontology	1-3
PSYC2150	Psychology of Aging and Elderly	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate an understanding of the biological, psychological, and cognitive changes that influence the function of elders and interactions with care providers
- Interact with elders in a climate of respect that recognizes their wealth in life experiences
- Plan, implement, and evaluate activities and programs that meet the needs of elders incorporating principles of wellness and disease prevention
- Utilize adaptations to meet specific needs of elders

Health Unit Coordinator - 120 Hours Certificate Program

This 120 hour course provides the student with information considered necessary for medical-clerical workers in hospital, clinic, nursing home and medical office settings. The students will be introduced to all aspects of medical orders and their transcription. Computer transcription will also be introduced and observation experiences at local medical settings are provided.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Transcribe physician orders
- Understand the meaning of medical terminology, medical abbreviations and be able to use each correctly
- Understand the importance of patient confidentiality and medical ethics associated with the patient/care-giver relationship
- Demonstrate skills learned in the didactic portion of the class

Massage Therapist - 30 Credits Diploma Program

The Massage Therapist Program prepares the graduate for operation of his or her own massage therapy clinic, or employment in another health care related setting. The graduate therapist is able to observe and assess the client's musculoskeletal system, propose a treatment plan, implement the treatment plan, and observe the client's response to the treatment. Stress Reduction, Deep Tissue, Neuromuscular, Lymphatic, Somatic and other manual soft tissue techniques are used. Documentation is done to record muscular pain and restrictions, postural distortions, fascial adhesions, and the effects of stress on the body. Small business start-up and management provide a foundation for entrepreneurs. All National Massage Therapist Certification requirements are met for eligibility for the National Massage Certification Exam. Therapists may find opportunities to work in a variety of settings. Most opportunities are with private business.

Course #	Course Title	Credits
ALTH1430	ARC First Aid & CPR/AED Professional Rescuer I	1
MTP1000	Massage Therapy Human Anatomy & Physiology	3
MTP1002	Massage Therapy Kinesiology	1
MTP1004	Massage Therapy Pathology	2
MTP1006	Issues in Massage Therapy Practice	2
MTP1008	Massage Therapy Procedures I	2
MTP1010	Full Body Stress Reduction Massage	4
MTP1012	Functional Somatic Release	2
MTP1014	Deep Tissue and Neuromuscular Massage	3
MTP1016	Special Populations Massage	4
MTP1018	Awareness and Injury Protection I	3
MTP1022	Massage Therapy Business: Start-up and Management	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Observe and assess the client's musculoskeletal system
- Propose and implement a treatment plan
- Observe and document the client's response to the treatment (including muscular pain and restrictions, postural distortions, fascial adhesions, and the effects of stress on the body)
- Meet the requirements for and be prepared to take the National Massage Certification Exam
- Produce a comprehensive business plan for starting, managing, and promoting a massage practice

Medical Assisting - 38 Credits Diploma Program

The Medical Assistant program is a 38 semester credit diploma program that prepares students for work in ambulatory care or medical office settings. The medical assistant is a multi-skilled professional with abilities in clinical, laboratory, and secretarial areas. This program includes course work in communication, sociology, anatomy and physiology, medical office, laboratory and clinical skills. The Lake Superior College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) on the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE).

Course #	Course Title	Credits
ALTH1410	Medical Terminology	1
ALTH1430	First Aid and CPR/AED for the Professional Rescuer	1
ALTH1440	Medical Ethics and the Law	1
BIOL1000	Human Body in Health and Disease	5
MEDA1400	Medical Assistant Clinical Procedures I	2
MEDA1402	Medical Assistant Clinical Procedures II	4
MEDA1405	Administrative Procedures for the Medical Assistant	3
MEDA2417	Medical Assistant Internship	4
MLTN1402	Basic Skills for Laboratory Personnel	4
MLTN1452	Medical Laboratory Procedures I	2
MLTN1522	Medical Laboratory Procedures II	2
MLTN1572	Phlebotomy Skills	1
RADT1415	X-ray Operation for Allied Health	2
SOC1111	Introduction to Sociology Communications	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Safely and ethically perform at an entry level the duties of the Medical Assistant in the areas of administrative office procedures, clinical patient related procedures and laboratory procedures
- Display dependability and professionalism when dealing with patients and employers
- Sit for the national certification exam

Medical Laboratory Technician - 72 Credits Associate in Applied Science Degree Program

Note: During the 2003-05 academic years, LSC will host the Hibbing Community College Medical Laboratory Technician program. For details, including the current program planner and course descriptions, visit the Hibbing Community College web site at www.hcc.mnscu.edu.



Program Description:

Medical Laboratory Technology is a profession that combines the challenges and rewards of both medicine and science. A medical laboratory technician performs a wide range of laboratory tests including microscopic examination of blood, identification of bacteria and viruses, and other laboratory testing that can lead to the diagnosis of diseases such as AIDS, diabetes, and cancer. Students learn the theory and principles behind the tests they perform and learn to correlate the results with patient's conditions. In addition, students earn general education credits, including anatomy and physiology, chemistry, computer applications and communications, which lead to an Associate in Applied Science (A.A.S.) Degree.

Employment Opportunities:

The need for Medical Laboratory Technicians is growing faster than there are qualified people to fill these jobs. The employment outlook continues to be strong, as there is a shortage of Medical Laboratory Technicians nationwide. Currently, positions are open for qualified laboratory professionals at places such as:
 Hospitals
 Clinics
 Public health facilities
 Business and Industry

Admission Requirements:

High school graduation; qualifying scores on math placement exams or demonstration of math competency (Completion of MATH 0970 Beginning Algebra with a C or better.) State law requires that any person who provides services that involve direct contact with patients and residents at a Minnesota licenses health care facility have a background study conducted by the State of Minnesota. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical internship or a clinical placement in a licensed health care facility. Failure to participate in clinical placement required by this program will result in ineligibility to qualify for a degree, diploma, and certificate and will be withdrawn from the program.

A record of physical examination must be submitted before final enrollment.

Nursing - 64 Credits

Associate in Science Degree Program

Lake Superior College offers an Associate in Science Degree in nursing. The college is a member of the Itasca Nursing Education Consortium (INEC), which offers an avenue for educational mobility for nurses in Northeastern Minnesota.

Students successfully completing the nursing and general education requirements of this program are eligible to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Graduates are prepared for entry level position in hospitals, nursing homes, and clinics.

Laboratory experiences are provided in area community hospitals, clinics, nursing homes, and other health agencies.

Prerequisites: Graduation from a Practical Nursing Program - 30 credits, granted; Licensure as a Practical Nurse within the State of Minnesota; BIOL1170, BIOL1140/1141 or BIOL1150/1160.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
NURS2510	Advanced Nursing Concepts	3
NURS2520	Adaptation Within the Family Unit: Pediatrics	2
NURS2530	Adaptations within the Family Unit: Obstetrics	2
NURS2640	Adaptations to Acute Health Interruptions: Cardiopulmonary Nursing	3
NURS2650	Adaptations to Acute Health Interruptions: Surgical Nursing	3
NURS2710	Adaptations to Complex Health Interruptions: Medical Nursing	4
NURS2720	Adaptations to Complex Health Interruptions: Mental Health Nursing	3
NURS2730	Adaptations to the Associate Degree Nursing Role	3
ENGL1109	College Composition II	3
OR		
COMM1100	Fundamentals of Human Communication	(3)
OR		
COMM1105	Interpersonal Communications	(3)
BIOL2160	Advanced Physiology	2
PHIL1130	Ethics (Humanities)	3
	Humanities (select from catalog)	1

SOC1111	Introduction to Sociology	3
OR		
ANTH1110	Cultural Anthropology	(3)

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Practice nursing within the adaptation framework providing safe care to patients in all stages of development at any given point on the health-illness continuum
- Utilize the nursing process focusing on critical thinking skills in assisting patients and families with adaptive needs within the scope of the Associate Degree Nursing role
- Provide nursing care reflecting an awareness of each patient's inherent worth and dignity
- Interact effectively with patients, peers, and members of other health care disciplines utilizing written and oral communication
- Develop an identity of self, supportive of continuous learning as a contributing community and professional member
- Identify dimensions of ethical and legal accountability of the individual nurse and the profession of nursing in meeting the health care needs of a society

Nursing Assistant

The Nursing Assistant course is designed to prepare the student for basic entry level employment in a nursing home, hospital, and other medical setting after successfully passing the registry exam. This course serves as an introduction to the nursing sequence for students who choose to advance in the nursing profession.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate understanding of 56 skills listed in course syllabus
- Demonstrate knowledge of career registration requirements

Practical Nursing - 50 Credits

Diploma Program

Practical Nursing students are prepared for a career in the health care system. Practical nurses provide nursing care in community settings, such as nursing homes, skilled care facilities, hospitals, clinics, and home care agencies. Upon completion of the program, graduates may apply for Licensed Practical nursing licensure by examination. Graduates may apply to associate degree completion nursing programs at regional community colleges which are members of Itasca Nursing Education Consortium or other community colleges in the state. Approved by the Minnesota Board of Nursing.

Course ID#	Course Title	Credits
ALTH1410	Medical Terminology	1
NUPN1400	Nursing Trends I	1
NUPN1410*	Adult Nursing I	4
NUPN1420*	PN Technical Skills I	3
NUPN1430**	Medication Concepts	3
NUPN1440	Psychosocial Nursing	2
NUPN1458***	PN Clinical I	1
NUPN1468	PN Clinical II	3
NUPN1500	Nursing Trends II	1
NUPN1510	Adult Nursing II	4
NUPN1520	PN Technical Skills II	1
NUPN1531	Maternal/Child Nursing	3
NUPN1538	Maternal/Child Clinical	2
NUPN1540	Gerontology in Nursing	2
NUPN1558	PN Clinical III	2
NUPN1568	PN Clinical IV	2
NUPN1608	PN Clinical Synthesis	2

BIOL1150+	Human Anatomy	4
OR		
BIOL1140+/1141	Human Anatomy and Physiology I & II	(8)
ENGL1106	College Composition I	3
PSYC1120	General Psychology	3
PSYC1135+	Human Development	3

Program Prerequisites:

- *NUNA1400 Nursing Assistant
- **MATH1420 Occupational Math/Health
- ***ALTH1430 First Aid & CPR/AED for The Professional Rescuer, obtained just prior to starting clinicals

Note: + These courses have course pre-requisites. Check the college catalog or with your advisor.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate knowledge regarding the scope of practice of the Practical Nurse
- Demonstrate proficiency in skills necessary to safely fulfill the role of the Practical Nurse
- Demonstrate professional behavior incorporating ethical and legal considerations relevant to nursing
- Communicate ideas clearly and concisely in written and oral form
- Demonstrate interpersonal skills needed to function as an effective team member
- Demonstrate problem-solving skills applying the concepts of the nursing process within the scope of the Practical Nurse
- Develops an awareness of available resources beyond the classroom for the continued personal and professional growth

Phlebotomy - 12 Credits

Certificate Program

This certificate program is designed to prepare a laboratory practitioner whose primary duty is to obtain patient blood specimens by venipuncture and/or micro collection techniques and to facilitate collection and transportation of other clinical laboratory specimens.

Course #	Course Title	Credits
ADSC1711	Computer Essentials	1
ALTH1410	Medical Terminology	1
ALTH1420	Communication for Health Professionals	2
ALTH1440	Medical Ethics & Law	1
MLTN1402	Basic Skills for the Laboratory Personnel	4
MLTN1574	Collection Procedures and Skills for Phlebotomists	2
MLTN2577	Internship-Phlebotomy & Associated Procedures	1

Program Requirement:

ALTH1430	ARC First Aid & CPR/AED Professional Rescuer	1
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Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Safely collect and process biological specimens for analysis
- Demonstrate career entry competencies at the level needed to obtain and keep a job in phlebotomy
- Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals and with the public

Physical Therapist Assistant - 74 Credits
Associate in Applied Science Degree Program

The Physical Therapist Assistant program provides an opportunity to become an educated health care provider who delivers physical therapy services under the supervision of a physical therapist. The PTA is able to observe and assess the patient's condition, teach exercises and activities of daily living, use specialized equipment, demonstrate professional skills while implementing treatment procedures, observe the patient's response to treatment, and document. Physical therapy practitioners minimize physical disability, movement dysfunction, body malfunctions, and pain. Physical therapist assistants may find opportunity to work in a variety of settings.

Accredited by the Commission on Accreditation in Physical Therapy Education.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ALTH1410**	Medical Terminology	1
PTA1000	Introduction to Health and Medical Literature	1
PTA1410	Introduction to Physical Therapist Assisting	3
PTA1411	Procedures for PTAs I	3
PTA1417	Physical Therapy Clinic I	2
PTA1421	Pathology for PTAs I	1
PTA1431	Therapeutic Exercise I	2
PTA1460	Functional Kinesiology I	2
PTA1512	Procedures for PTAs II	2
PTA1522	Pathology for PTAs II	1
PTA1527	Physical Therapy Clinic II	2
PTA1532	Therapeutic Exercise II	3
PTA1541	Issues in Physical Therapy Practice I	1
PTA1562	Functional Kinesiology II	4

PTA2613	Procedures for PTAs III	2
PTA2623	Pathology for PTAs III	2
PTA2637	Physical Therapy Clinic III	1
PTA2642	Issues in Physical Therapy Practice II	2
PTA2650	Rehabilitation & Functional Therapy	4
PTA2651	Advanced Physical Therapy Techniques	3
PTA2717*	Clinical Practice I	4
PTA2727*	Clinical Practice II	4
PTA2747*	Clinical Practice III	3
PTA2840	Professional Integration	1
BIOL1140**	Human Anatomy & Physiology I	4
AND		
BIOL1141+	Human Anatomy & Physiology II	4
OR		
BIOL1150**	Human Anatomy	(4)
AND		
BIOL1160+	Human Physiology	(4)
ENGL1106**	College Composition I	3
PSYC1120+	General Psychology	3
PSYC1135+	Human Development	3
COMM1105+	Interpersonal Communication	3
OR		
COMM1110+	Fundamentals of Speech	(3)

*ALTH1430 or equivalent is a course prerequisite for PTA2717, PTA2727 and PTA2747

**Pre-technical course requirements must be taken prior to starting PTA courses.
 + It is strongly recommended that these courses be taken prior to starting PTA courses.

Program Outcomes

- The program is designed to provide students with the knowledge and ability to:
- Work under the direction and supervision of a physical therapist in an ethical, legal, safe, and effective manner
 - Implement selected components and interventions in the plan of care developed by a physical therapist
 - Communicate regularly with the supervising physical therapist about the patient's progress and the need for adjustments to be made by the physical therapist in treatment procedures in accordance with changes in patient status
 - Perform appropriate data collection techniques within the knowledge and limits of practice to assist the supervising physical therapists in monitoring and modifying the plan of care
 - Interact with patients and families in a manner which provides the desired psychosocial support including the recognition of cultural and socioeconomic differences
 - Participate in the teaching of other health care providers, patients and families
 - Document relevant aspects of patient treatment
 - Participate in discharge planning and follow-up care as directed by the physical therapist
 - Demonstrate effective written, oral, and nonverbal communication with patients and their families, colleagues, health care providers, and the public
 - Demonstrate an understanding of levels of authority and responsibility; planning, time management, supervisory process, performance evaluations, policies and procedures; fiscal considerations for physical therapy providers and consumers; and, continuous quality improvement
 - Demonstrate professional behaviors required for success in the field of physical therapy
 - Identify career development and life-long learning opportunities



Radiologic Technology - 82 Credits

Associate in Applied Science Degree Program

As radiographers, graduates have opportunities to use their knowledge of physics, anatomy, and physiology to create permanent images that help physicians diagnose illness, injury, or disease. The radiologic technologist is an integral member of the medical team during emergencies and surgery, as well as during standard radiographic and fluoroscopic procedures.

Career opportunities for graduates are diverse. They may work in hospitals, clinics, health care facilities, industrial plants, research centers, and government agencies. Further education and training is available in specialized areas such as nuclear medicine, radiation therapy, sonography, computerized tomography, mammography and magnetic resonance imaging (MRI). These career choices also offer advancement opportunities in administration, education, sales and quality control.

The program is accredited by the Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 900
Chicago, IL 60606-2901
(312) 704-5300
e-mail: mail@jrcert.org

Graduates are eligible for the national certification examination given by the American Registry of Radiologic Technologists.

This 24-month program offers the opportunity for clinical experience in the Duluth area or Outreach Project sites in Bemidji, Brainerd, Grand Rapids, Hibbing, Moose Lake, and Virginia, Minnesota; Ashland, Wisconsin, and Ironwood, Michigan. Outreach Project students will complete the majority of their clinical experience at one site but may be required to complete specific experiences in Duluth.

All students will be required to attend core Radiologic Technology classes in Duluth one day per week each term.

Pre-technical requirements

Application deadline for this program is January 31. Applicants are required to complete the following forms (available in Enrollment Services):

- LSC application
- Prerequisite Verification
- Documentation of observation in a Radiologic Technology department

Prior to taking any RADT course, all pre-technical courses must be completed with a grade of "C" or better with and an overall GPA of 2.6 or better. *Algebra I or placement score. *Background approval by the Minnesota Department of Health (forms mailed upon acceptance into the program.)

Course Prerequisites

ENGL1106	College Composition I	3
BIOL1140	Human Anatomy & Physiology I	4
ALTH1410	Medical Terminology	1
Algebra I or placement score.		
CPR for the Health Professional		

Course #	Course Title	Credits
RADT1400	Introduction to Radiography and Patient Care	2
RADT1453	Radiographic Procedures I	2
RADT1463	Radiographic Procedures II	4
RADT1552	Image Production I	3
RADT1560	Image Production II	3
RADT1558	Clinical Radiography I	6

RADT1568	Clinical Radiography II	8
RADT1578	Clinical Radiography III	4
RADT2451	Specialized Radiographic Procedures	1
RADT2453	Radiographic Procedures III	2
RADT2455	Radiographic Pathology	1
RADT2550	Radiation Biology and Protection	2
RADT2558	Clinical Radiography IV	8
RADT2560	Quality Assurance in Radiology	1
RADT2568	Clinical Radiography V	8
RADT2572	Directed Studies	1
RADT2578	Clinical Radiography VI	4
ADSC1711	Computer Essentials	1
PHIL1130	Ethics	3
COMM1105	Interpersonal Communication	3
BIOL1141	Human Anatomy & Physiology II	4
	Social & Behavioral Science Elective	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate use of proper verbal and written medical communications by using appropriate medical terminology and documentation skills
- Anticipate patient needs and provide basic patient care and comfort
- Apply principles of body mechanics in patient transportation, transfer, and equipment operation
- Exercise independent judgment and discretion in adaptation/modification of exposure factors for various patient conditions, equipment, accessories, and contrast media to maintain appropriate radiographic quality
- Position the patient and imaging system to perform radiographic examinations and procedures
- Operate darkroom and/or daylight processing systems properly
- Practice radiation protection for patient, self and others following the ALARA concept
- Evaluate radiographs for appropriate anatomy, positioning and image quality
- Successfully complete the required Competency Based Evaluations (CBE) in accordance with ARRT standards
- Participate in activities that promote the profession and increase personal professional development and growth

Respiratory Care Practitioner - 76 Credits

Associate in Applied Science Degree Program

Respiratory care practitioners are health care specialists who work with a variety of patients suffering from cardiopulmonary disorders. Working under the direction of a physician, respiratory care practitioners assist in the evaluation, treatment, management, and rehabilitation of these disorders. Patients treated by respiratory care practitioners range from premature infants to the elderly. Practitioners enjoy tremendous opportunity for diversity in their practices. Working in diagnostic labs, hospitals, clinics, home care and industry, respiratory care practitioners fill a vital role in our nation's health care system.

The clinical experience is diverse, with opportunities to train in a variety of areas and hospitals in our region. Upon graduation, the student will receive an Associate in Applied Science Degree in Respiratory Care. The graduate is then eligible to sit for the NBRC credentialing exams, which are required for licensure. Upon successful completion of the exams, the graduate will be awarded the credentials of Registered Respiratory Therapist (R.R.T.).

Course #	Course Title	Credits
ALTH1410	Medical Terminology	1
ALTH1440	Medical Ethics & Law	1
RESP1400	Introduction to Respiratory Care	1
RESP1410	Cardiopulmonary Anatomy and Physiology	4
RESP1420	Principles and Practice of Respiratory Care I	3
RESP1520	Principles and Practice of Respiratory Care II	3
RESP1530	Pathophysiology for RCP's	3
RESP1540	Diagnostic Testing	3
RESP1558	RCP Clinical I	6
RESP1620	Pharmacology for RCP's	2
RESP2410	Mechanical Ventilation	4
RESP2420	Adult Critical Care	3
RESP2430	Special Topics for RCP's	2
RESP2440	Neonatal/Pediatric Respiratory Care	3
RESP2458	RCP Clinical II	6
RESP2510	Directed Studies in Respiratory Care	3
RESP2558	RCP Clinical III	8
BIOL1140	Human Anatomy and Physiology I	4
OR		
BIOL1150	Human Anatomy	(4)
BIOL1141	Human Anatomy and Physiology II	4
OR		
BIOL1160	Human Physiology	(4)
BIOL1170	Microbiology	3
CHEM1110	Aspects of Chemistry I	3
ENGL1106	College Composition I	3
PSYC1120	General Psychology	3
OR		
SOC1111	Introduction to Sociology	(3)

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Exhibit the ability to discern, implement, and evaluate information required to practice as an entry level Advance Respiratory Care Practitioner
- Demonstrate proficiency in technical skill required to practice as an entry level Advanced Respiratory Care Practitioner
- Exhibit behaviors which are professional in nature and are consistent with employer expectations as an entry level Advanced Respiratory Care Practitioner

Surgical First Assistant - 30 Credits Diploma Program

The Surgical First Assistant program will expand the academic knowledge base and skill level of the certified surgical technologist and certified operating room nurse to expand their abilities to assist the surgeon in the operating room at a higher level.

Program Requirements: Graduate of accredited Surgical Technology Program with current certification and 3 years experience in the Operating room.

*Pre-technical course requirements: Pre-technical course requirements (indicated with a *) must be completed prior to taking Surgical First Assistant courses.

Course ID#	Course Title	Credits
*ALTH1410	Medical Terminology	1
*ALTH1430	ARC: First Aid and CPR/AED for Professional Rescuer	1
*BIOL1150	Human Anatomy	4
*BIOL1160	Human Physiology	4

Surgical First Assistant Courses:

STFA2000	Pharmacology for the Surgical First Assistant	4
STFA2002	Operating Room Practice for the Surgical First Assistant	3
STFA2004	Operating Room Theory for the Surgical First Assistant	4
STFA2006	Operating Room Procedures for the Surgical First Assistant	3
STFA2008	Operating Room Lab for the Surgical First Assistant	6

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate professional attitudes and behaviors
- Demonstrate knowledge and practice of basic patient-care concepts
- Demonstrate the application of the principles of asepsis in a knowledgeable manner that provides for optimal patient care in the operating room
- Demonstrate the principles of safe positioning of the surgical patient
- Provide for visualization of the operative site during the operative procedure
- Demonstrate the proper techniques to assist the surgeon in providing for hemostasis
- Demonstrate the appropriate techniques to assist with the closure of body organs/parts
- Expedite the operative procedure by anticipating the needs of the surgeon
- Demonstrate advanced knowledge of normal and pathological anatomy and physiology
- Demonstrate superior organizational skills
- Demonstrate knowledge of emergency situations and respond appropriately



Surgical Technology - 45 Credits Diploma Program

The Surgical Technologist is a member of the surgical team who works with surgeons, anesthesiologists, certified registered nurse anesthetists, registered nurses, and other surgical personnel in delivering patient care and assuming appropriate responsibilities before, during and after surgery. The surgical technologist is responsible for demonstrating knowledge and practice of basic patient-care concepts and applying principles of asepsis for optimal patient care in the operating room. The surgical technologist is responsible for case preparation to include skills in scrubbing, gowning, and gloving, instrumentation and equipment set-up, assisting in draping the surgical patient and handing of instruments during the operative procedure. Surgical technologists may find the opportunity to work in a variety of work settings.

*Pre-technical course requirements:

Pre-technical course requirements (indicated with a *) must be completed prior to taking Surgical Technology courses.

+Other course requirements:

Courses other than pre-technical courses and technical courses (indicated with a +) may be completed any time prior to graduation.

Course #	Course Title	Credits
*ALTH1410	Medical Terminology	1
*ALTH1430	ARC First Aid & CPR/AED Professional Rescuer I	1
*BIOL1150	Human Anatomy	4
OR		
*BIOL1000	The Human Body in Health & Disease	(5)
+ENGL1106	College Composition I	3
OR		
COMM1100	Fundamentals of Human Communication	(3)
OR		
COMM1105	Interpersonal Communication	(3)
Surgical Technical Courses		
SURG1400	Pharmacology for Surgical Tech	2
SURG1412	Operating Room Theory	5
SURG1411	Operating Room Practice	4
SURG1420	Operating Room Lab I	4
SURG1428	Operating Room Procedures I	2
SURG1520	Operating Room Lab II	12
SURG1528	Operating Room Procedures II	6

Program Outcomes

- Demonstrate knowledge regarding the scope of practice for Surgical Technologists.
- Demonstrate proficiency in technical skills necessary to practice safely as an entry level Surgical Technologist
- Demonstrate professional behavior consistent with the profession's and employer expectations utilizing ethical and legal considerations relevant to the role of a Surgical Technologist
- Demonstrate accountability as a health care professional.
- Communicate effectively utilizing written and oral formats
- Demonstrate interpersonal skills needed to function as an effective team member
- Demonstrate use of problem solving and critical thinking skills by comprehending, applying and evaluating information relevant to the role as a surgical technologist.
- Use educational opportunities for continued personnel and professional development.

Surgical Technology - 60 Credits Associate in Applied Science Degree Program

The Surgical Technologist is a member of the surgical team who works with surgeons, anesthesiologists, certified registered nurse anesthetists, registered nurses, and other surgical personnel in delivering patient care and assuming appropriate responsibilities before, during and after surgery. The surgical technologist is responsible for demonstrating knowledge and practice of basic patient-care concepts and applying principles of asepsis for optimal patient care in the operating room. The surgical technologist is responsible for case preparation to include skills in scrubbing, gowning, and gloving, instrumentation and equipment set-up, assisting in draping the surgical patient and handing of instruments during the operative procedure. Surgical technologists may find the opportunity to work in a variety of work settings. A 22-credit liberal education component diversifies the student's training and enhances transfer opportunities.

*Pre-technical course requirements:

Pre-technical course requirements (indicated with a *) must be completed prior to taking Surgical Technology courses.

+Other course requirements:

Courses other than pre-technical courses and technical courses (indicated with a +) may be completed any time prior to graduation.

Course #	Course Title	Credits
*ALTH1410	Medical Terminology	1
*ALTH1430	ARC First Aid & CPR/AED Professional Rescuer I	1
*BIOL1150	Human Anatomy	4
+ENGL1106	College Composition I	3
OR		
COMM1100	Fundamentals of Human Communication	(3)
OR		
COMM1105	Interpersonal Communication	(3)
+PSYC1120	General Psychology	3
+PHIL1130	Ethics	3
+(Liberal Education Electives-8 credits required) (Students are encouraged to take BIOL1160 as elective)		
Surgical Technical Courses		
SURG1400	Pharmacology for Surgical Tech	2
SURG1412	Operating Room Theory	5
SURG1411	Operating Room Practice	4
SURG1420	Operating Room Lab I	4
SURG1428	Operating Room Procedures I	2
SURG1520	Operating Room Lab II	12
SURG1528	Operating Room Procedures II	6

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate knowledge regarding the scope of practice for Surgical Technologists
- Demonstrate proficiency in skills necessary to safely fulfill the role of the Surgical Technologist
- Demonstrate professional behavior consistent with the profession's and employer expectations utilizing ethical and legal considerations relevant to the role of the Surgical Technologist
- Demonstrate accountability as a health care professional
- Communicate effectively utilizing written and oral formats
- Demonstrate interpersonal skills needed to function as an effective team member
- Demonstrate use of problem solving and critical thinking skills by comprehending, applying and evaluating information relevant to the surgical technologist position

- Use educational opportunities for continued personnel and professional development

Public Safety Careers

Corrections

Corrections Certificate I

Foundations of Corrections - 16 Credits

The Corrections Certificate I is a 16-credit program that certifies students' knowledge in corrections and its basis in social science. It includes courses in sociology, social deviance, criminal justice, and corrections.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
SOC1111	Introduction to Sociology	3
SOC1112	Foundations of Society	3
SOC1114	Introduction to Criminal Justice	3
SOC1116	Introduction to Corrections	4
SOC1125	Social Deviance	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate an understanding of the social context in which the U.S. criminal justice system has developed and continues to function
- Demonstrate the ability to analyze how human behavior comes to be labeled deviant or conforming and how sanctions are developed and implemented within a society
- Analyze the ways in which structural elements of society influence both the incidence of crime and the way in which corrections programs are implemented

Certificate I is a prerequisite for Certificate II

Corrections Certificate II

Focus in Corrections - 17 Credits

Correction Certificate II is a 17-credit program that builds on Certificate I to focus students' academic knowledge specifically on race, class, and gender issues, crime and delinquency, correctional law, and legal practices and procedures in corrections. Certificate II also includes a 4-credit service learning internship in corrections.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
SOC1118	Correctional Law	4
SOC1120	Legal Practices & Procedures in Corrections	3
SOC1130	Crime & Juvenile Delinquency	3
SOC1145	Race, Class, & Gender	3
SOC2177	Community Service in Corrections	4

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Accurately describe the legal and relational context in which corrections employees and offenders interact
- Demonstrate success in providing service to a correctional facility or program in the context of a service learning program

Fire Technology and Administration - 72 credits

Associate in Applied Science Degree Program

The Fire Technology and Administration program provides an opportunity for students to obtain basic and advanced instruction in fire prevention, fire fighting techniques, rescue, and management of fire services. Critical decision making is emphasized at



the company officer level to ensure improvement in all aspects of fire technology, productivity, and safety. Aircraft Rescue and Fire Fighting classes are available to enhance the knowledge base of fire suppression technicians. Completion of liberal education courses early in program is recommended to establish an academic foundation for technical courses.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
FIRE1401	Today's Fire Service	2
FIRE1405	Recruit Fire Fighter	2
FIRE1410	Building Construction	3
FIRE1420	Inspection, Codes and Practices	3
FIRE1430	Hazardous Materials, Operations	2
FIRE1441	Recruit Fire Fighter Lab	2
FIRE1450	Fire Apparatus Operation	2
FIRE1460	Fire Fighting Tactics and Strategy	3
FIRE1560	Emergency Medical Technician-Basic	6
FIRE2400	Fire Service Reporting	3
FIRE2411	Recruit Fire Fighter II	2
FIRE2420	Fire Instructor	2
FIRE2430	Fire Officer	2
FIRE2440	Chemistry of Hazardous Materials	3
FIRE2460	Fire Inspection & Prevention Applications	3
FIRE2470	Fire Investigation	3
FIRE2500	Rescue	2
FIRE2511	Company Functions	2
CHEM1110	Aspects of Chemistry I	3
ENGL1106	College Composition I	3

Minnesota Transfer Curriculum:

Communication	3
History and Social/Behavioral Science	3
Humanities	3
Natural Sciences	3

Other Technical Credits:
 Technical Electives 2

Approved Electives:

Course #	Course Title	Credits
FIRE1470	Natural Cover Fire Fighting	2
FIRE1510	Public Fire Education	2
FIRE1520	Rope Rescue Techniques	1
FIRE1530	Low Angle Rescue	1
FIRE1540	Fire Fighter I & II	3
FIRE1550	Fire Fighter I & II Lab	3
FIRE2520	Fire Management	2
FIRE2530	Fire Apparatus, Advanced	2
FIRE2540	High Angle Rescue	1
FIRE2550	Confined Space Rescues	1
FIRE2560	Chemistry of Hazardous Materials II	2
FIRE2570	Hazardous Materials, Technician	3
FIRE2600	EMT-Refresher	2
FIRE2610	Fire Intern 100	1
FIRE2620	Fire Intern 200	2
FIRE2630	Fire Intern 300	3
FIRE2640	Fire Intern 400	4
FIRE2650	Fire Intern 500	5
FIRE2660	Fire Intern 600	6
MATH1531	Technical Math I	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Be job ready based on nationally accepted performance standards and behaviors for fire fighters
- Be prepared with the appropriate background and experience to serve as Fire Equipment Operators
- Be prepared with the appropriate background and experience to serve as entry level Company Officers
- Be able to use the applicable building and safety codes to conduct building inspections and related fire prevention activities
- Be able to integrate the Incident Command System and its component parts into daily work assignments and all emergency response settings
- Be able to perform the functions of an Emergency Medical Technician at the appropriate level for the department and interact with all providers to ensure good patient care
- Be able to use the nationally recognized standards and behaviors for the response to and mitigation of hazardous materials releases and emergencies
- Be able to apply a broad working knowledge of rescue techniques and theories to include specialized areas not limited to activities like high level/high angle, confined spaces and water related rescues
- Be experienced in day to day fire department type operations, station life, and working conditions

Paramedic - 72 Credits

Associate of Applied Science Degree Program

Graduates of this Associate Degree program will be qualified and skilled professionals in the field of emergency medical services as a Paramedic. The Emergency Medical Technician-Paramedic (EMT-P) is a person who works in the exciting, expanding field of Emergency Medical Services (EMS). Current EMT-B certification is a prerequisite for this program, as well as Anatomy Physiology I. This degree incorporates theoretical knowledge with extensive clinical application and experience. The specialization and advanced education and training in the care and transport of the critically ill and injured can mean the difference between life and death. AAS 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. This program prepares students to write the National Registry Paramedic Exam.

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

Course #	Course Title	Credits
EMTP1120	Paramedicine I	3
EMTP1220	Paramedicine Skills I	3
EMTP1225	Pharmacology	2
EMTP1420	Paramedicine II	3
EMTP1520	Paramedicine Skills II	3
EMTP1600	Critical Care Clinical	2
EMTP1700	Support Services Clinical	2
EMTP1800	ALS Ambulance Clinical	4
EMTP2020	Paramedicine III	4
EMTP2120	EMS Hazardous Materials	1
EMTP2220	Paramedicine IV	3
EMTP2300	Advanced Cardiac Life Support Provider	1
EMTP2320	Advanced Trauma Life Support Provider	1
EMTP2340	Pediatric Advanced Life Support (PALS)	1
EMTP2360	Neonatal Resuscitation Program	1
EMTP2380	Advanced Medical Life Support Provider	1
EMTP2400	Emergency Department Clinical	3
EMTP2500	Acute Care Clinical	3
EMTP2600	Paramedicine Internship	8
	Technical Electives	3

Minnesota Transfer Curriculum

BIOL1140	Human Anatomy and Physiology I	4
COMM1105	Interpersonal Communication	3
ENGL1106	College Composition I	3
PSYC1120	General Psychology	3
PSYC1135	Human Development	3
	Electives (MTC)	4

Approved Technical Electives:

EMTP1125	Emergency Vehicle Operations (EVOC)	1
EMTP1300	Bioterrorism	2
FIRE1470	Natural Cover Fire Fighting	2
FIRE1520	Rope Rescue Techniques	1
FIRE1530	Low Angle Rescue	1

FIRE1565	Wilderness Survival	2
FIRE2540	High Angle Rescue	1
FIRE2550	Confined Space Rescues	1
FIRExxxx	Rescue Diver	2

Program Outcomes

- At the conclusion of the program, the Paramedic will:
- Function at an entry level as a competent advanced level out-of-hospital care provider and describe how their role and responsibilities differ from other levels of responders
 - Function as part of an overall team providing a wide range of care to the ill or injured patient
 - Demonstrate efficient and effective patient assessments and the formulation of care plans based on that assessment
 - Recognize the special needs of the trauma patient and the time-frame constraints of their injuries
 - Recognize the wide range of medical problems a patient can present with and deal effectively with them as a whole organism
 - Demonstrate an ability to work with special needs patients like geriatric and pediatric populations
 - Develop a sense of their own well being and individual needs based on working in a fast-paced and stressful environment
 - Demonstrate an ability to work with all patients regardless of circumstances or socio-economic standing in the community

Trade and Industry

A+ Certified PC Technician - 13 Credits Certificate Program

The A+ Certified PC Technician Certificate program educates students in the areas of PC setup, configuration, and repair. It has a focus on preparing the student for the COMPTIA sponsored A+ certification exam. This provides students with the skills required to obtain jobs as computer technicians in a variety of industries and businesses.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN1420	Soldering and Surface Mount Lab	1
ELTN2410	Media and Cabling Theory	1
ELTN2415	Media and Cabling Lab	2
ELTN2465	A+ PC Service and Support	3
ELTN2515	A+ Preparation	2

Note: This certificate is preparation for A+ Certification

Program Outcomes

- The program is designed to provide students with the knowledge and ability to:
- Install various computer operating systems
 - Install and configure various PC hardware components, e.g. memory, hard drives, modems, and network cards
 - Be proficient at cabling using appropriate standards and media

Architectural Technology - 64 Credits Diploma Program

Architectural Technology students apply building technology and drafting expression in the production of architectural drawings. This program is designed to develop technical skills which are used in the architectural office and are pertinent to engineering, contracting, and other construction-related fields.

Course #	Course Title	Credits
ARCH1400	Intro to Architecture	3
ARCH1411	Materials and Methods I	2
ARCH1415	Project Lab I	6
ARCH1420	Intro to Structures	2
ARCH1425	Architectural CAD I	3

ARCH1430	Architecture Design-Criteria/Constraints	3
ARCH1435	Site Design	2
ARCH1441	Materials and Methods II	3
ARCH1445	Project Lab II	4
ARCH1455	Architectural CAD II	3
ARCH2400	Mechanical & Electrical Systems	3
ARCH2405	Architectural CAD III	2
ARCH2435	Project Lab III	6
ARCH2450	Specifications and Construction Administration	3
ARCH2460	Commercial Project	6
ARCH2470	Structural Applications	3
MATH1531	Tech Math I	3
MATH1532	Tech Math II	3

Other Technical Credits:

Technical Electives	4
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Program Outcomes

- The program is designed to provide students with the knowledge and ability to:
- Demonstrate an understanding of construction materials and processes
 - Develop accurate, constructible architectural drawings
 - Apply regulatory requirement criteria
 - Demonstrate CAD proficiency
 - Apply basic structural design concepts
 - Estimate material quantities and construction costs
 - Utilize site design principles
 - Demonstrate an understanding of Mechanical/Electrical systems

Architectural Technology - 72 Credits Associate in Applied Science Degree Program

The Architectural A.A.S. Degree program prepares students to apply building technology and drafting expression in the production of architectural drawings. This program is designed to develop skills which are pertinent to architecture, engineering, contracting, and other related fields. The inclusion of a 20-credit liberal education component diversifies the student's training and enhances transfer opportunities to other institutions of higher learning.

Course #	Course Title	Credits
ARCH1400	Intro to Architecture	3
ARCH1411	Materials and Methods I	2
ARCH1415	Project Lab I	6
ARCH1420	Intro to Structures	2





ARCH1425	Architectural CAD I	3
ARCH1430	Architecture Design-Criteria/Constraints	3
ARCH1435	Site Design	2
ARCH1441	Materials and Methods II	3
ARCH1445	Project Lab II	4
ARCH1455	Architectural CAD II	3
ARCH2400	Mechanical & Electrical Systems	3
ARCH2405	Architectural CAD III	2
ARCH2435	Project Lab III	6
ARCH2450	Specifications and Construction Administration	3
ARCH2460	Commercial Project	6
ARCH2470	Structural Applications	3

Minnesota Transfer Curriculum:

Communication	3
Humanities	3
Natural Science or Math	3
Math	3
Social/Behavioral Science	3
Non-designated	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate an understanding of construction materials and processes
- Develop accurate, constructible architectural drawings
- Apply regulatory requirement criteria
- Demonstrate CAD proficiency
- Apply basic structural design concepts
- Estimate material quantities and construction costs
- Utilize site design principles
- Demonstrate an understanding of Mechanical/Electrical systems

**Basic Electronics Certificate - 29 Credits
Certificate Program**

This certificate is designed to give basic knowledge of electronics and micro-computers. The technical knowledge received will prepare students for future training on specific electronic equipment.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Introduction To Computers	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Lab	2
ELTN1410	Digital Basics	3

ELTN1415	Digital Lab	2
ELTN1420	Soldering & Surface Mount Lab	1
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Operate common electronic test equipment, oscilloscopes, DMM's, and signal generators
- Read and understand circuit schematics, i.e. recognize basic circuit configurations and understand their operation
- Understand basic circuit analysis techniques
- Troubleshoot and repair common electronic circuits

Broadcasting - 33 Credits

Diploma Program

This program is designed to prepare the graduate for a wide variety of positions in radio and television. In the technical or production disciplines, graduates are trained for jobs ranging from highly visible on-the-air assignments to positions on production or news teams. Graduates can also gain skills needed for careers in broadcast copy writing, programming, advertising sales, or management. Lake Superior College Broadcasting students receive valuable hands-on experience in LSC's own radio and TV studios and through internships and experience at local broadcast stations.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
BDCT1411	Introduction to Radio	3
BDCT1412	Radio Production	3
BDCT1511	Television Production I	4
BDCT1512	Television Production II	4
BDCT1610	The Business of Broadcasting & Advertising	3
BDCT1670	Broadcast Mgmt & Programming	2
OR		
BDCT1680	Radio/TV Sales	(2)
ADSC1711	Computer Essentials*	1
OR		
CIS1400	Introduction to Computers**	(2)
COMM1601	HR-The Individual in Career or Classroom	1
ENGL1106	College Composition I	3
COMM1602	HR-Team-building in Career or Classroom	1

* Other computer courses can be substituted if the student meets the prerequisites.

**Computer courses over one credit will reduce the technical electives by a like amount to keep the 33 credit total.

Other Technical Credits:

Technical Electives	8
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Approved Electives:

BDCT1450	Applied Radio	1-2
BDCT1620	Radio/TV Copywriting	4
BDCT1640	Broadcast Journalism	3
BDCT1797	Broadcast Internship	1-3
BDCT1799	Broadcast Practicum	1-3

Transfer:

LSC Broadcasting credits are directly accepted in the Communicating Arts Department at the University of Wisconsin - Superior.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Shoot and edit single camera television projects using both analog and digital equipment
- Participate in cooperative television studio production teams
- Record, voice, and produce radio commercials using both analog and digital equipment
- Define and use terms and techniques commonly in use in broadcast advertising and programming
- Define and use audience research (ratings) terms

Building Construction Technology - 64 Credits Diploma Program

The Building Construction Technology program prepares students to build and repair structures to comply with existing codes. Students learn to read blueprints, sketches, and specifications for information pertaining to dimensions, type of materials required, and standards of work. Experience is gained working with a variety of hand tools, power tools, and construction equipment. Skills learned in the program include wood and metal framing, concrete forming, remodeling, and interior and exterior finishing of residential and commercial buildings. The courses in the second year of the program are offered at an off-campus building site. The second year students build a residential structure from the initial site layout through all the construction phases to the final finish work.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ALTH1435	American Red Cross First Aid & Community CPR	1
BLDG1400	Construction Safety	4
BLDG1407	Concrete Forming	3
BLDG1410	Basic Framing	5
BLDG1415	Cabinets & Laminates	2
BLDG1420	Leadership & Trade/Labor Relations	2
BLDG1425	Estimating for Building Construction	1
BLDG1430	Building Site Lay-Out	1
BLDG1435	Blueprint Reading	3
BLDG1440	Stair Design & Construction	3
BLDG1445	Framing With Metal & Welding	3
BLDG1450	Interior/Exterior Construction	3
BLDG2412	Site Preparation & Concrete Form Work	5
BLDG2415	Floor & Wall Framing	3
BLDG2420	Roof Framing	3
BLDG2425	Understanding Working Drawings	2
BLDG2430	Energy & Sound Control	2
BLDG2435	Exterior Finishing	4
BLDG2440	Stair Construction	2
BLDG2445	Introduction to Construction Management	2
BLDG2450	Interior Finishing/Casework	6
COMM1601	HR-The Individual in Career or Classroom	1
COMM1602	HR-Team-building in Career or Classroom	1
Other Technical Credits Required:		
	Building Construction Elective	2
Approved Electives:		
BLDG1500	Residential Decks	1
BLDG1505	Computerized Estimating for Building Construction	1
BLDG1510	Resource-Efficient Building	1
BLDG1515	Metal Work	1
BLDG1520	Drywall Finishing	1
BLDG2507	Internship	1-4

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Erect concrete forms for footings, walls, columns, and flat work
- Frame floors, walls, and roofs using wood and steel framing
- Install exterior finish components
- Install interior finish components
- Estimate building materials requirements
- Coordinate construction activities
- Perform construction duties safely

Building Construction Technology - 72 Credits Associate in Applied Science Degree Program

The Building Construction Technology program prepares students to build and repair structures to comply with existing codes. Students learn to read blueprints, sketches, and specifications for information pertaining to dimensions, type of materials required, and standards of work. Experience is gained working with a variety of hand tools, power tools, and construction equipment. Skills learned in the program include wood and metal framing, concrete forming, remodeling, and interior and exterior finishing of residential and commercial buildings. The courses in the second year of the program are offered at an off-campus building site. The second year students build a residential structure from the initial site layout through all the construction phases to the final finish work. An 18-credit liberal education component diversifies the student's training and enhances transfer opportunities to other institutions.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
BLDG1400	Construction Safety	4
BLDG1407	Concrete Forming	3
BLDG1410	Basic Framing	5



BLDG1415	Cabinets & Laminates	2
BLDG1425	Estimating for Building Construction	1
BLDG1430	Building Site Lay-Out	1
BLDG1435	Blueprint Reading	3
BLDG1440	Stair Design & Construction	3
BLDG1450	Interior/Exterior Construction	3
BLDG1465	Framing with Metal	2
BLDG2414	Site Preparation and Foundation	4
BLDG2415	Floor & Wall Framing	3
BLDG2420	Roof Framing	3
BLDG2425	Understanding Working Drawings	2
BLDG2430	Energy and Sound Control	2
BLDG2435	Exterior Finishing	4
BLDG2440	Stair Construction	2
BLDG2445	Introduction to Construction Management	2
BLDG2450	Interior Finishing/Casework	6

Minnesota Transfer Curriculum:		
	Communications	3
	Math/Science	3
	Social/Behavior Science/Humanities	3
	Non-designated	9

Technical Electives		
BLDG1420	Leadership and Trade/Labor Relations	2
BLDG1500	Residential Decks	1
BLDG1505	Computerized Estimating for Bldg. Cons.	1
BLDG1510	Resource-Efficient Building	1
BLDG1515	Metal Work	1
BLDG1520	Drywall Finishing	1
BLDG1525	Welding	1
BLDG2455	Selection and Use of Construction Materials	3
BLDG2507	Internship	1-4

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Erect concrete forms for footings, walls, columns, and flat work
- Frame floors, walls, and roofs using wood and steel framing
- Install exterior finish components
- Install interior finish components
- Estimate building materials requirements
- Coordinate construction activities
- Perform construction duties safely

Civil Engineering Technology - 64 Credits Diploma Program

In the Civil Engineering Technology program, students learn skills they can use in a career assisting Civil Engineers and Land Surveyors. The student will find a wide range of opportunities in all phases of construction, design, and surveying. The course of instruction includes route surveying, property descriptions, quantity calculations, material testings and CAD (Computer Aided Design) to design roads, building sites, and property subdivisions.

Course #	Course Title	Credits
CADE1407	Engineering CAD	5
CETT1400	Introduction to CET	2
CETT1405	Fundamentals of Surveying	3
CETT1410	Introduction to Material Testing	3
CETT1420	Route Survey	4
CETT1430	Civil CAD Applications	4
CETT1440	Engineering Problem Solving	2
CETT2400	Intermediate Survey	3
CETT2407	Engineering Technology Internship	1-7
CETT2410	Stormwater Management	3
CETT2420	Land Survey Systems	3

CETT2430	Site Development	3
CETT2440	Civil Estimating	3
CETT2450	Highway Design	4
CETT2460	Advanced Survey	3
MATH1531	Technical Math I	3
MATH1532	Technical Math II	3

Other Technical Electives:		
	Technical Electives	3

Ten (10) credits need to be taken between elective and internship courses. If a student is not accepted for an internship, elective courses can be substituted. Electives are approved by the advisor.

Approved Elective:		
ARCH1420	Intro to Structures	2
CETT2100	Introduction to GIS	2
CETT2600	Aggregate Production I	1
CETT2630	Bituminous Street I	1
CETT2650	Concrete Field Level I	1
CADE2700	Microstation I	6

Other courses with instructor/advisor approval.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Obtain MnDOT level 1 certification in concrete, aggregates, and bituminous
- Successfully install and uninstall engineering software
- Determine accuracy of their level work
- Verify the accuracy of their total station data
- Perform standard survey calculations
- Develop Site and Highway plan sets
- Research related information in both print and electronic formats
- Set-up and create drawings using CAD

Civil Engineering Technology - 72 Credits Associate in Applied Science Degree Program

In the Civil Engineering Technology A.A.S. Program, students learn career skills they can use to assist civil engineers and land surveyors in all phases of their projects. The course of instruction includes Civil CAD (computer aided design) using AutoCad and other civil CAD software, surveying, quantity calculations, material testing, and inspection duties. In addition, the student takes 18 or more liberal education credits to strengthen their math and communication abilities. The program is designed to train students for employment while also offering them improved transfer opportunities.

Course #	Course Title	Credits
CADE1407	Engineering CAD	5
CETT1400	Introduction to CET	2
CETT1405	Fundamentals of Surveying	3
CETT1410	Introduction to Material Testing	3
CETT1420	Route Survey	4
CETT1430	Civil CAD Applications	4
CETT1440	Engineering Problem Solving	2
CETT2400	Intermediate Survey	3
CETT2407	Engineering Technology Internship	1-7
CETT2410	Stormwater Management	3
CETT2420	Land Survey Systems	3
CETT2430	Site Development	3
CETT2440	Civil Estimating	3
CETT2450	Highway Design	4
CETT2460	Advanced Survey	3

Other Technical Electives:	
Technical Electives	2
Minnesota Transfer Curriculum:	
Non-designated Electives	6
Humanities	3
Social/Behavioral Science	3
Communication	3
Math/Science	3

Students may use the following courses as Technical Electives. Nine (9) credits need to be taken between elective and internship courses.

Approved Electives:	
ARCH1420 Introduction to Structures	2
CADE2700 Microstation I	6
CETT2100 Introduction to GIS	2
CETT2600 Aggregate Production I	1
CETT2630 Bituminous Street I	1
CETT2650 Concrete Field Level I	1
MATH1531 Technical Math I	3
MATH1532 Technical Math II	3

Other courses with instructor/advisor approval.

Based on assessment results, you may be required to take MATH1531 and/or MATH1532 prior to MATH1150.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Determine accuracy of their level work
- Verify the accuracy of their total station data
- Perform standard survey calculations
- Develop Site and Highway plan sets
- Research related information in both print and electronic formats
- Set-up and create drawings using CAD

Commercial and Residential Wiring - 64 Credits Diploma Program

The Commercial and Residential Wiring diploma program teaches students to install, operate, and repair electrical systems. Students also learn to install wiring in buildings and to make power connections from an outside source. Training in the program includes simulated residential, commercial, and industrial settings. Also covered will be DC and AC motor controls, electrical distribution panels, and testing equipment. Students become familiar with digital applications, analog solid state, and programmable controllers that are used within industrial settings throughout the nation.

Course #	Course Title	Credits
ELEC2401	Residential Wiring	3
ELEC2402	Residential Wiring Lab	2
ELEC2421	Commercial Wiring I	3
ELEC2422	Commercial Wiring I Lab	2
ELEC2431	Motor Control	2
ELEC2432	Motor Control Lab	1
ELEC2440	National Electrical Code I	2
ELEC2451	Commercial Wiring	2
ELEC2452	Commercial Wiring Lab	2
ELEC2461	Electrical Troubleshooting	2
ELEC2471	Industrial Wiring	2
ELEC2472	Industrial Wiring Lab	2
ELEC2501	Electrical Controls	2

ELEC2502	Electrical Controls Lab	1
ELEC2510	National Electrical Code II	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Theory Lab	2
ELTN1411	Introduction to Digital Electronics	1
ELTN1416	Introduction to Digital Electronics Lab	1
ELTN1420	Soldering & Surface Mount Lab	1
ELTN1431	Intro to Solid-State	2
ELTN1436	Intro to Solid-State Lab	1
ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5
ELTN1460	Programmable Controllers	2

Other Technical Credits:

Technical Electives 10

Approved Electives: (optional category)

Course #	Course Title	Credits
ALTH1435	American Red Cross First Aid & Community CPR	1
CIS1400	Introduction to Computers	2
CIS1521	Introduction to Microcomputer Operating Systems	2
COMM1601	HR-The Individual in Career or Classroom	1
ELEC2490	Electrical Internship	1-4
ELTN1410	Digital Basics	3
ELTN1415	Digital Lab	2
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2
ELTN2400	CET Exam Preparation	1
ELTN2401	FCC Exam Preparation	1
ELTN2410	Media & Cabling Theory	1
ELTN2415	Media & Cabling Lab	2
ELTN2420	Robotics	2
ELTN2430	Introduction to Instrumentation	2
ELTN2440	Motor Speed Controllers	2
ELTN2450	Programmable Control Applications	2
ELTN2465	A+ PC Service and Support	3
ELTN2477	Electronics Internship	1-4
ELTN2500	Servomechanisms and Synchros	2
ELTN2505	Networking + Service and Support	3
ELTN2999	Special Topics in Electronic Engineering Technology	1-3
MATH1531	Technical Math I	3
MATH1532	Technical Math II	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Have a working knowledge and understanding of the National Electrical Code (NEC)
- Have a working knowledge of safety issues relating to the electrical industry and workplace
- Understand and be able to perform tasks relating to residential wiring
- Understand and be able to perform tasks relating to commercial wiring
- Understand and be able to perform tasks relating to industrial wiring

Commercial and Residential Wiring - 72 Credits Associate in Applied Science Degree Program

The Commercial and Residential Wiring A.A.S. Degree program combines technical courses with general education courses, offering graduates an excellent foundation for employment leading to leadership roles, management positions, and potential transfer to institutions with baccalaureate degrees. This program is designed to develop entry-level skills; and to complete the program within two years, the student is advised to follow the program planner.

Course #	Course Title	Credits
ELEC2401	Residential Wiring	3
ELEC2402	Residential Wiring Lab	2
ELEC2421	Commercial Wiring I	3
ELEC2422	Commercial Wiring I Lab	2
ELEC2431	Motor Control	2
ELEC2432	Motor Control Lab	1
ELEC2440	National Electrical Code I	2
ELEC2451	Commercial Wiring	2
ELEC2452	Commercial Wiring II Lab	2
ELEC2461	Electrical Troubleshooting	2
ELEC2471	Industrial Wiring	2
ELEC2472	Industrial Wiring Lab	2
ELEC2501	Electrical Controls	2
ELEC2502	Electrical Controls Lab	1
ELEC2510	National Electrical Code II	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Theory Lab	2
ELTN1411	Introduction to Digital Electronics	1
ELTN1416	Introduction to Digital Electronics Lab	1
ELTN1431	Intro to Solid-State	2
ELTN1436	Intro to Solid-State Lab	1
ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5
ELTN1460	Programmable Controllers	2
ELEC2490	Electrical Internship	1-4

Minnesota Transfer Curriculum:

Communications	3
Math/Science	3
Social/Behavioral Science	3
Humanities	3
Non-designated	8

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Have a working knowledge and understanding of the National Electrical Code (NEC)
- Have a working knowledge of safety issues relating to the electrical industry and workplace
- Understand and be able to perform tasks relating to residential wiring
- Understand and be able to perform tasks relating to commercial wiring
- Understand and be able to perform tasks relating to industrial wiring

Computer Aided Design Engineering Technology - 64 Credits Diploma Program

The Computer Aided Design Engineering Technology program prepares students to translate the ideas, sketches, and specifications of engineers and designers into workable plans which are used in product fabrication. Students learn to use engineering technology in determining exact specifications for new product design or modification, or redesign of present products. The

course begins with instruction in basic drafting skills and advances to more complex technological areas. Major emphasis will be on the application and use of computer aided design.

Course #	Course Title	Credits
CADE1401	Orthographic Detailing & Dimensioning	3
CADE1405	Introduction to CAD Engineering Technology	1
CADE1407	Engineering CAD	5
CADE1410	Sections & Auxiliary Views	2
CADE1420	Manufacturing Processing & Design	2
CADE1430	Geometric Dimensioning & Tolerancing	2
CADE1450	Mechanical Details	3
CADE1460	Sheet-Metal Development	3
CADE2400	Engineering CAD II	5
CADE2410	Engineering CAD III	5
CADE2420	Electrical/Electronic Drawings	3
CADE2430	Industrial Piping Layout	3
CADE2440	Fluid Power Design	3
CADE2450	Technical Illustration 3D	3
CADE2460	Jigs & Fixtures	3
CADE2470	Design Project	5
MATH1531	Technical Math I	3
MATH1532	Technical Math II	3

Other Liberal Education Credits:

Electives 7

Internship Classes Available:

CADE2407 Engineering Technology Internship 1-7

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Illustrate orthographic viewing and dimensioning techniques
- Demonstrate section and auxiliary detailing
- Display dimensioning and tolerancing techniques
- Outline an understanding of manufacturing principles and practices
- Delineate mechanical component details
- Illustrate sheet metal development drawings
- Demonstrate basic through advanced principles of CAD applications
- Create and formulate electrical/electronic drawings
- Create and formulate industrial piping layouts
- Create and formulate fluid power drawings
- Create and formulate jig and fixture design
- Present technical illustrations using 3-dimensional design
- Provide a cumulative final design project

Computer Aided Design Engineering Technology - 72 Credits

Associate in Applied Science Degree Program

The A.A.S. Computer Aided Design Engineering Technology program provides students with an engineering technology which incorporates computer graphics and technical illustrations. The program prepares students for advanced computer applications emerging in the fields of engineering, graphics, and design.

Students will learn to use engineering technology in determining exact specifications for new product design, modification, or redesign of present products. This course begins with instruction in basic drafting skills and advances to more complex technological areas. Major emphasis will be on the application and use of computer aided design.

Course #	Course Title	Credits
CADE1401	Orthographic Detailing & Dimensioning	3
CADE1405	Introduction to CAD Engineering Technology	1

CADE1407	Engineering CAD	5
CADE1410	Sections & Auxiliary Views	2
CADE1420	Manufacturing Processing & Design	2
CADE1430	Geometric Dimensioning & Tolerancing	2
CADE1450	Mechanical Details	3
CADE1460	Sheet-Metal Development	3
CADE2400	Engineering CAD II	5
CADE2410	Engineering CAD III	5
CADE2420	Electrical/Electronic Drawings	3
CADE2430	Industrial Piping Layout	3
CADE2440	Fluid Power Design	3
CADE2450	Technical Illustration 3D	3
CADE2460	Jigs & Fixtures	3
CADE2470	Design Project	5
	Technical Electives	3

Technical Electives:

CADE2407	Engineering Technology Internship	1-7
CADE2480	Mechanical Desktop	3
CADE2999	Special Topics	1-3
CETT1405	Fundamentals of Surveying	3

General Education Courses (Minnesota Transfer Curriculum)18 Credits required

	Social/Behavioral Science	0-6
	Humanities	0-6
	Communications	3-6
	Math/Science	3-6

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Illustrate orthographic viewing and dimensioning techniques
- Demonstrate section and auxiliary detailing
- Display dimensioning and tolerancing techniques
- Outline an understanding of manufacturing principles and practices
- Delineate mechanical component details
- Illustrate sheet metal development drawings
- Demonstrate basic through advanced principles of CAD applications
- Create and formulate electrical/electronic drawings
- Create and formulate industrial piping layouts
- Create and formulate fluid power drawings
- Create and formulate jig and fixture design
- Present technical illustrations using 3-dimensional design
- Provide a cumulative final design project
- Create engineering drawings using advanced CAD applications

Microstation (CAD) - 18 Credits

Certificate Program

This certificate is an advanced program requiring, at minimum, completion of the Advanced Autocad course, experience in the field, or instructor approval. Ideally participants will have completed the CAD Engineering Technology degree or diploma. The program builds on the skills gained in the diploma and/or associate degree program and is also an appropriate upgrade for those currently employed in the field. Microstation is an advanced alternative computer aided design software package that is gaining acceptance in the Civil Technology and Architectural fields.

Course #	Course Title	Credits
CADE2700	Microstation I	6
CADE2710	Microstation II	6
CADE2720	Microstation III	6



Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Create engineering drawings using advanced CAD applications

**Electronic Engineering Technology:
A+ and Networking Computer Support - 72 Credits**

Associate in Applied Science Degree Program

The A.A.S. Electronic Engineering Technology program with A+ and Networking Computer Support emphasis educates students in the areas of basic analog and digital electronic theory and analysis. It also teaches students to repair and upgrade personal computers as well as set up and maintain various types of computer networks. This provides students with the skills required to obtain jobs as computer/network technicians in a variety of industries and businesses.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Lab	2
ELTN1410	Digital Basics	3
ELTN1415	Digital Lab	2
ELTN1420	Soldering & Surface Mount Lab	1
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2
ELTN2400	CET Exam Preparation	1
ELTN2410	Media & Cabling Theory	1
ELTN2415	Media & Cabling Lab	2
ELTN2465	A+ PC Service and Support	3
ELTN2505	Networking + Service and Support	3
ELTN2515	A+ Certification Exam Preparation	2
Minnesota Transfer Curriculum:		
	Communications	3
	Math/Science	3
	Social/Behavioral Science or Humanities	3
	Non-designated	9

Other Technical Credits:

Technical Electives	11
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Approved Electives:

ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5

ELTN1460	Programmable Controllers	2
ELTN2401	FCC Exam Prep	1
ELTN2420	Robotics	2
ELTN2430	Introduction to Instrumentation	2
ELTN2440	Motor Speed Controllers	2
ELTN2450	Programmable Control Applications	2
ELTN2470	Video Theory	2
ELTN2475	Video Lab	2
ELTN2477	Electronics Internship	1-4
ELTN2480	Communications Electronics	5
ELTN2485	Communications Electronics Lab	5
ELTN2500	Servomechanisms and Synchros	2
ELTN2510	AM/FM/SSB Communication	4
ELTN2515	A+ Certification Exam Prep	2
ELTN2999	Special Topics in Electronics	1-3
ELEC2440	National Electrical Code I	2
ELEC2471	Industrial Wiring	2
ELEC2472	Industrial Wiring Lab	2
ELEC2510	National Electric Code II	2
COMM1601	HR-The Individual in Career or Classroom	1
MATH1531	Technical Math I	3

Other courses may be allowed as electives with advisory approval.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Operate common electronic test equipment, oscilloscopes, DMM's, and signal generators
- Read and understand circuit schematics, i.e. recognize basic circuit configurations and understand their operation
- Understand basic circuit analysis techniques
- Troubleshoot and repair common electronic circuits
- Install various computer operating systems
- Install and configure various PC hardware components, e.g. memory, hard drives, modems, and network cards
- Install and configure LANs
- Be proficient at cabling using appropriate standards and media

Electronic Technology - 64 Credits

Diploma Program

The Electronic Technology program is a comprehensive technician training program in which students are trained to work in many areas of electronics including microcomputers, communications systems, and industrial and robotic systems. Training includes extensive hands-on experience in addition to fundamental knowledge of principles and practices.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
CIS1400	Intro to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Lab	2
ELTN1410	Digital Basics	3
ELTN1415	Digital Lab	2
ELTN1420	Soldering & Surface Mount Lab	1
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2
ELTN1460	Programmable Controllers	2
ELTN1470	Systematic Troubleshooting	1
ELTN2400	CET Exam Prep	1
ELTN2465	A+ PC Service and Support	3
ENGL6000	Professional Communication	3
COMM1602	HR-Team-building in Career or Classroom	1



Other Technical Credits:

Approved Programs Electives 22

Approved Electives:

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5
ELTN2401	FCC Exam Prep	1
ELTN2410	Media and Cabling Theory	1
ELTN2415	Media and Cabling Lab	2
ELTN2420	Robotics	2
ELTN2430	Introduction to Instrumentation	2
ELTN2450	Programmable Control Applications	2
ELTN2465	A+ PC Service and Support	3
ELTN2477	Electronics Internship	1-4
ELTN2480	Communications Electronics	5
ELTN2485	Communications Electronics Lab	5
ELTN2500	Servomechanisms and Synchros	2
SMGT1520	Work Teams	1
COMM1601	HR-The Individual in Career or Classroom	1
MATH1531	Technical Math I	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Operate common electronic test equipment, oscilloscopes, DMM's, and signal generators
- Read and understand circuit schematics, i.e. recognize basic circuit configurations and understand their operation
- Understand basic circuit analysis techniques
- Troubleshoot and repair common electronic circuits
- Install and configure various PC hardware components, e.g. memory, hard drives, modems, and network cards

Electronic Engineering Technology-Industrial Controls - 72 Credits

Associate in Applied Science Degree Program

The A.A.S. Electronics Engineering Technology program with Industrial Controls Emphasis educates students in the areas of basic electronic theory and analysis, industrial control principles and practices, and provides students with the skills required to obtain jobs as industrial electronic technicians in a wide variety of industries. Training includes basic theory and extensive hands-on

experience with industrial wiring practices, motors and motor controllers, programmable controllers, and a variety of industrial instrumentation.

Course #	Course Title	Credits
CIS1400	Introduction to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Lab	2
ELTN1410	Digital Basics	3
ELTN1415	Digital Lab	2
ELTN1420	Soldering & Surface Mount Lab	1
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5
ELTN1460	Programmable Controllers	2
ELTN1470	Systematic Troubleshooting	1
ELTN2400	CET Exam Preparation	1
ELTN2410	Media & Cabling Theory	1
ELTN2415	Media & Cabling Lab	2
ELTN2440	Motor Speed Controllers	2
ELTN2465	A+ PC Service and Support	3

Minnesota Transfer Curriculum:		
	Communications	3
	Math/Science	3
	Social/Behavioral Science or Humanities	3
	Non-designated	9

Other Technical Credits:		
	Technical Electives	7

Approved Electives:		
Course #	Course Title	Credits
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2
ELTN2401	FCC Exam Prep	1
ELTN2420	Robotics	2
ELTN2430	Introduction to Instrumentation	2
ELTN2450	Programmable Control Applications	2
ELTN2470	Video Theory	2
ELTN2475	Video Lab	2
ELTN2477	Electronics Internship	1-4
ELTN2480	Communications Electronics	5
ELTN2485	Communications Electronics Lab	5
ELTN2500	Servomechanisms and Synchros	2
ELTN2505	Networking + Service and Support	3
ELTN2515	A+ Preparation	2
ELTN2999	Special Topics in Electronics	1-3
ELEC2471	Industrial Wiring	2
ELEC2472	Industrial Wiring Lab	2
ELEC2510	National Electric Code II	2
COMM1601	HR-The Individual in Career or Classroom	1
MATH1531	Technical Math I	3

Minnesota Transfer Curriculum:		
	Communications	3
	Math/Science	3
	Social/Behavioral Science or Humanities	3
	Non-designated	9

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Operate common electronic test equipment, oscilloscopes, DMM's, and signal generators

- Read and understand circuit schematics, i.e. recognize basic circuit configurations and understand their operation
- Understand basic circuit analysis techniques
- Troubleshoot and repair common electronic circuits
- Install, program, and troubleshoot programmable controllers (PLC's) used in industrial plants
- Install, troubleshoot, and configure AC and DC motors
- Install and configure various PC hardware components, e.g. memory, hard drives, modems, and network cards
- Be proficient at cabling using appropriate standards and media

Electronic Engineering Technology-Wireless Communications - 72 Credits

Associate in Applied Science Degree Program

The A.A.S. Electronic Engineering Technology program with wireless communications emphasis educates students in the areas of basic analog and digital electronic theory and analysis. It also teaches students the essential topics underlying wireless electronic communications theory and practices. These topics are then related to specific modern wireless communications systems. This provides students with the skills required to obtain jobs as electronic communications technicians in a variety of industries.

Course #	Course Title	Credits
CIS1400	Intro to Computers	2
CIS1521	Microcomputer Operating Systems	2
ELTN1400	Basic Electricity Theory	4
ELTN1405	Basic Electricity Lab	2
ELTN1410	Digital Basics	3
ELTN1415	Digital Lab	2
ELTN1420	Soldering and Surface Mount Lab	1
ELTN1430	Solid-State Theory	5
ELTN1435	Solid-State Lab	4
ELTN1470	Systematic Troubleshooting	1
ELTN2400	CET Exam Prep	1
ELTN2401	FCC Exam Prep	1
ELTN2410	Media and Cabling Theory	1
ELTN2415	Media and Cabling Lab	2
ELTN2465	A+ PC Service and Support	3
ELTN2480	Communications Electronics	5
ELTN2485	Communications Electronics Lab	5
	Technical Electives	10

Minnesota Transfer Curriculum:		
	Communication	3
	Math/Science	3
	Social/Behavioral Science or Humanities	3
	Non-designated	9

Approved Electives:		
Course #	Course Title	Credits
ELTN1440	AC/DC Rotating Equipment	5
ELTN1445	AC/DC Rotating Equipment Lab	5
ELTN1450	Microcontroller Theory	4
ELTN1455	Microcontroller Lab	2
ELTN1460	Programmable Controllers	2
ELTN2420	Robotics	2
ELTN2430	Introduction to Instrumentation	2
ELTN2440	Motor Speed Controllers	2
ELTN2450	Programmable Control Applications	2
ELTN2470	Video Theory	2
ELTN2475	Video Lab	2
ELTN2477	Electronics Internship	1-4
ELTN2500	Servomechanisms and Synchros	2
ELTN2505	Networking + Service and Support	3
ELTN2510	AM/FM/SSB Communication	4
ELTN2515	A+ Preparation	2



ELTN2999	Special Topics in Electronics	1-3
ELEC2440	National Electrical Code I	2
ELEC2471	Industrial Wiring	2
ELEC2472	Industrial Wiring Lab	2
ELEC2510	National Electric Code II	2
COMM1601	HR-The Individual in Career or Classroom	1
MATH1531	Technical Math I	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Operate common electronic test equipment, oscilloscopes, DMM's, and signal generators
- Read and understand circuit schematics, i.e. recognize basic circuit configurations and understand their operation
- Understand basic circuit analysis techniques
- Troubleshoot and repair common electronic circuits
- Understand various types of analog and digital modulation schemes used in modern electronic communications
- Understand basic antenna and EM wave propagation theory as they relate to things such as antenna gain, polarization, and radiation patterns as well as EM wave attenuation, reflection, and refraction
- Install and configure various PC hardware components, e.g. memory, hard drives, modems, and network cards
- Be proficient at cabling using appropriate standards and media

Machine Technology Careers

CNC Machine Programmer - 64 Credits

Diploma Program

The CNC Machine Programmer program is designed to prepare the student for employment as a CNC Machinist/Programmer. Skill development includes performing basic floor programming to produce a part to specifications, setup and operation of CNC machines, instruction in inspection and statistical process control, and program parts designed and engineered using a CAD/CAM computer system.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
MTCC1400	Blueprint Reading I	2
MTCC1410	Machine Shop Safety & Power Saws	1
MTCC1420	Bench Work, Math, & Measurement	1
MTCC1430	Basic Engine Lathes I	3

MTCC1440	Vertical Milling Machines I	3
MTCC1450	Engine Lathe II	3
MTCC1460	Blueprint Reading II	2
MTCC1470	Industrial Machinery's Handbook	1
MTCC1500	Horizontal Milling Machines	1
MTCC1505	Surface Grinder I	2
MTCC1510	Heat Treating	1
MTCC1520	Cylindrical Grinding	1
MTCC2400	Vertical Milling Machines II	3
MTCC2410	Basic CAD	2
MTCC2420	Handscrew Machine	1
MTCC2430	Inspection & Geometric Tolerancing	3
MTCC2440	CNC Basic Programming	1
MTCC2450	Estimating & Processing	1
MTCC2460	Tool & Cutter Grinding	2
MTCC2470	Basic CAM	3
MTCC2500	CNC Mill (Conversational)	3
MTCC2510	CNC Turning/Slant	3
MTCC2530	Jig & Fixture Construction	2
MTCC2540	CNC Machine Center (3 axis)	3
MTCC2550	CNC Turning/Kit	3
MTCC2560	Advanced CNC Mill (4th Axis)	4
MTCC2570	Wire EDM	3
MATH1531	Technical Math I	3
MATH1535	Applied Geometry for Technicians	2

Other Liberal or Technical Electives: 2

Approved Electives:

MTCC1405	Professional Development	1
MTCC2480	NIMS Certification Level I	1
MTCC2579	Special Topics	1-6
SMGT1520	Work Teams	1
COMM1601	HR-The individual in Career or Classroom	1
ENGL6000	Professional Communications	3
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Perform a basic setup and operate different types of manual metal working machines
- Write basic programs and operate different types of CNC metal working machines
- Perform mathematical calculation of shop problems
- Use basic CAD and CAM computer programs to generate CNC programs to be used on machine tools
- Interpret all basic drawings and blueprints
- Build basic machine parts and tools.

Machine Tool Operator - 29 Credits

Certificate Program

The operator course is designed to provide students with training or updating in basic machine tool operation. The program provides students with a basic background in turning, milling, safety, bench work, and the use of basic measuring tools. The student can take more advanced elective courses from the machine tool careers curriculum.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
MTCC1400	Blueprint Reading I	2
MTCC1410	Machine Shop Safety & Power Saws	1
MTCC1420	Bench Work, Math, & Measurement	1
MTCC1430	Basic Engine Lathes I	3
MTCC1440	Vertical Milling Machines I	3
MTCC1450	Engine Lathe II	3

MTCC2400 Vertical Milling Machines II 3

Other Technical Electives:
Approved Electives 13

Approved Electives: 13 additional credits listed under the CNC Machine Programmer program.

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Perform a basic setup and operate different types of manual metal working machines
- Write basic programs and operate different types of CNC metal working machines
- Perform mathematical calculation of shop problems
- Use basic CAD and CAM computer programs to generate CNC programs to be used on machine tools
- Interpret all basic drawings and blueprints
- Build basic machine parts and tools.

Moldmaker/Toolmaker - 64 Credits

Diploma Program

The Moldmaker/Toolmaker program is designed to prepare the student for employment as a moldmaker. Skill development includes interpreting mold designs, building mold components as per design, running mold for proper operation, and finished part. CNC and CAD/CAM computer stations will be used to assist in design and engineering of mold components.

Course #	Course Title	Credits
MTCC1400	Blueprint Reading I	2
MTCC1410	Machine Shop Safety & Power Saws	1
MTCC1420	Bench Work, Math, & Measurement	1
MTCC1430	Basic Engine Lathes I	3
MTCC1440	Vertical Milling Machines I	3
MTCC1450	Engine Lathe II	3
MTCC1460	Blueprint Reading II	2
MTCC1470	Industrial Machinery's Handbook	1
MTCC1505	Surface Grinder I	2
MTCC1510	Heat Treating	1
MTCC2400	Vertical Milling Machines II	3
MTCC2410	Basic CAD	2
MTCC2430	Inspection & Geometric Tolerancing	3
MTCC2440	CNC Basic Programming	1
MTCC2460	Tool & Cutter Grinding	2
MTCC2470	Prototype CAD CAM	3
MTCC2500	CNC Mill (Conversational)	3
MTCC2520	Conventional EDM	2
MTCC2540	CNC Machine Center (3 axis)	3
MTCC2560	CNC Mill Vertical & Horizontal	4
MTCM2400	Mold Construction	1
MTCM2410	Mold Building I	4
MTCM2420	Milling Machines III & Optidress	2
MTCM2430	Mold Building II	5
MATH1531	Technical Math I	3
MATH1535	Applied Geometry for Technicians	2

Other Liberal or Technical Electives: 2

Approved Electives:
 COMM1601 HR-The individual in Career or Classroom 1
 ENGL1000 Professional Communications 3
 MTCC1405 Professional Development 1
 MTCC2570 Wire EDM 3
 MTCC2579 Special Topics 1-6

COMM1602 HR-Team-building in Career or Classroom 1
 SMTG1520 Work Teams 1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Perform a basic setup and operate different types of manual metal working machines
- Write basic programs and operate different types of CNC metal working machines
- Perform mathematical calculation of shop problems
- Use basic CAD and CAM computer programs to generate CNC programs to be used on machine tools
- Interpret all basic drawings and blueprints
- Build basic machine parts, tools and/or plastic injection molds

Transportation Careers

Auto Body Technology - 33 Credits

Diploma Program

The Auto Body Technology program allows students to gain the information and develop skills needed to repair and refinish collision damaged automobiles. Courses cover the areas of body and frame straightening, body panel replacement, dented panel repair, refinishing, welding techniques, plastic panel repair, interior and exterior trim service, glass replacement, and mechanical system service. Instruction includes classroom lectures and demonstrations as well as hands-on projects in the LSC auto body lab. Students working in the lab use state-of-the-art equipment and materials to make actual repairs on collision damaged vehicles.

Course #	Course Title	Credits
ABTE1415	Auto Body Welding	3
ABTE1425	Simple Dent Repair	3
ABTE1435	Introduction to Refinishing	3
ABTE1440	Auto Trim & Glass Service	3
ABTE1445	Auto Mechanical Systems	3
ABTE1455	Automotive Refinishing	3
ABTE1465	Collision Damage Repair	3
ABTE1475	Collision Damage Replacement	3
ABTE1485	Unibody & Frame Repair	2
ABTE1495	Auto Body Plastic Repairs	2
ADSC1711	Computer Essentials	1
ENGL1002	Trade Communications	2
MATH1440	Occupational Math/Transportation	1
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate an understanding of automobile body repair welding materials, tools and equipment, and procedures
- Demonstrate an understanding of automobile body panel dent repair materials, tools and equipment, and procedures
- Demonstrate an understanding of automobile body refinishing materials, tools and equipment, surface preparation procedures, and spray techniques
- Demonstrate an understanding of automobile trim and hardware service materials, tools and equipment, and procedures
- Demonstrate an understanding of automobile window glass service materials, tools and equipment, and procedures
- Demonstrate an understanding of automobile mechanical systems operation and mechanical component removal, replacement, and adjustment materials, tools and equipment, and procedures



- Demonstrate an understanding of automobile body panel replacement materials, tools and equipment, and procedures
- Demonstrate an understanding of automobile body/frame alignment tools and equipment and straightening procedures
- Demonstrate an understanding of automobile plastic body panel repair materials, tools and equipment, and procedures
- Demonstrate safe and proper use of automobile body repair hand and power tools, hazardous materials, and personal protective equipment

Auto Service Technology - 64 Credits Diploma Program

In the Auto Service Technology program, students will have the opportunity to learn skills to prepare for entry-level positions as automotive technicians. These skills will also be helpful in preparing for A.S.E. (Automotive Service Excellence) certification. Courses of instruction cover all systems of the automobile, including basic operation and parts identification with the objective of developing diagnostic skills. Automotive service technicians, in addition to enjoying working with their hands, must also have the ability to systematically diagnose technical automotive problems.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ABTE1405	Basic Welding	2
ADSC1711	Computer Essentials	1
ASTE1400	Intro to Transportation	3
ASTE1410	Air Conditioning	2
ASTE1430	Auto Electrical Fundamentals	3
ASTE1440	Body Electrical & Electronics	3
ASTE1450	Engine Service	5
ASTE1460	Basic Fuel System Service	2
ASTE1470	Basic Engine Driveability	3
ASTE1480	Basic Hydraulics	1
ASTE1500	Charging & Starting Service	3
ASTE2400	Suspension & Steering Repair	3
ASTE2410	Basic Wheel Alignment	2

ASTE2420	Advanced Wheel Alignment	2
ASTE2430	Clutch & Differential	3
ASTE2440	Brakes	4
ASTE2450	Transmission Theory	3
ASTE2460	Transmission Lab	3
ASTE2470	Intro to Automotive Computers	3
ASTE2480	Advanced Air conditioning	2
ASTE2500	Fuel Systems II	3
ASTE2510	Advanced Engine Driveability	4
ENGL1002	Trade Communications	2
MATH1440	Occupational Math/Transportation	1
COMM1602	HR-Team-building in Career or Classroom	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate the skills and knowledge necessary to utilize service literature
- Demonstrate the skills and knowledge to perform repairs following environmental and ethical guidelines
- Exhibit the safety procedures and practices necessary to work efficiently and professionally in the automotive industry
- Demonstrate the ability to maintain and repair tools and equipment in the automotive shop
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive heating and air conditioning systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive electrical systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive drive train systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive steering and suspension systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive brake systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive driveability systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive engine systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive transmission systems

Auto Service Technology - 72 Credits Associate in Applied Science Degree Program

In the Automotive Service Technology programs, students will have the opportunity to learn skills to prepare for entry-level positions as automotive technicians. These skills will also be helpful in preparing for A.S.E. (Automotive Service Excellence) certification. Courses of instruction cover all systems of the automobile, including basic operation and parts identification with the objective of developing diagnostic skills. Automotive service technicians, in addition to enjoying working with their hands, must also have the ability to systematically diagnose technical automotive problems.

The A.A.S. program is similar in content to the diploma programs, but also includes 18 credits of liberal education, which are intended to diversify the students' training and enhance transfer opportunities to other institution of higher learning.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ABTE1405	Basic Welding	2
ASTE1400	Intro to Transportation	3
ASTE1410	Air Conditioning	2
ASTE1430	Auto Electrical Fundamentals	3
ASTE1440	Body Electrical & Electronics	3
ASTE1450	Engine Service	5
ASTE1460	Basic Fuel System Service	2

ASTE1470	Basic Engine Driveability	3
ASTE1480	Basic Hydraulics	1
ASTE1500	Charging & Starting Service	3
ASTE2400	Suspension & Steering Repair	3
ASTE2410	Basic Wheel Alignment	2
ASTE2420	Advanced Wheel Alignment	2
ASTE2430	Clutch & Differential	3
ASTE2440	Brakes	4
ASTE2470	Intro to Automotive Computers	3
ASTE2480	Advanced Air Conditioning	2
ASTE2500	Fuel Systems II	3
ASTE2510	Advanced Engine Driveability	4

Minnesota Transfer Curriculum:		
Communications		3
Math/Science		3
Social Behavioral Science		3
Non-designated		9

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate the skills and knowledge necessary to utilize service literature
- Demonstrate the skills and knowledge to perform repairs following environmental and ethical guidelines
- Exhibit the safety procedures and practices necessary to work efficiently and professionally in the automotive industry
- Demonstrate the ability to maintain and repair tools and equipment in the automotive shop
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive heating and air conditioning systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive electrical systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive drive train systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive steering and suspension systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive brake systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive driveability systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive engine systems

Brake and Suspension Technician - 27 Credits Certificate Program

A Brake and Suspension Technician is a technician who uses problem solving and critical thinking skills along with a working knowledge of brake and suspension components to diagnose and repair a variety of vehicle handling and braking problems.

The courses will be provided by qualified Lake Superior College faculty and will be offered at varied times throughout the day and evening. All credits will transfer into the Automotive Service Technology program and/or can serve as preparation to A.S.E. (Automotive Service Excellence) certification.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ABTE1405	Basic Welding	2
ADSC1711	Computer Essentials	1
ASTE1400	Intro to Transportation	3
ASTE1430	Auto Electrical Fundamentals	3
ASTE1440	Body Electrical & Electronics	3
ASTE1480	Basic Hydraulics	1

ASTE2400	Suspension and Steering Repair	3
ASTE2410	Basic Wheel Alignment	2
ASTE2420	Advanced Wheel Alignment	2
ASTE2440	Brakes	4
ENGL1002	Trade Communications	2
MATH1440	Occupational Math/Transportation	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate the skills and knowledge necessary to utilize service literature
- Demonstrate the skills and knowledge to perform repairs following environmental and ethical guidelines
- Exhibit the safety procedures and practices necessary to work efficiently and professionally in the automotive industry
- Demonstrate the ability to maintain and repair tools and equipment in the automotive shop
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive electrical systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive steering and suspension systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive brake systems

Driveability Technician - 29 Credits Certificate Program

A "Driveability Technician" is a technician who uses problem solving and critical thinking skills, along with a working knowledge of all vehicle systems, to diagnose and repair a variety of vehicle driveability problems. The courses will be provided by qualified Lake Superior College faculty and will be offered at varied times throughout the day and evening. All credits will transfer into the Automotive Service Technology program and/or can serve as preparation for ASE certification.

<u>Course ID#</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1711	Computer Essentials	1
ASTE1430	Auto Electrical Fundamentals	3
ASTE1450	Engine Service	5
ASTE1460	Basic Fuel System Service	2
ASTE1470	Basic Engine Driveability	3
ASTE1500	Charging & Starter Systems	3
ASTE2470	Intro to Automotive Computers	3



ASTE2500	Fuel Systems II	3
ASTE2510	Advanced Engine Driveability	4
ENGL1002	Trade Communications	2

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Demonstrate the skills and knowledge necessary to utilize service literature
- Demonstrate the skills and knowledge to perform repairs following environmental and ethical guidelines
- Exhibit the safety procedures and practices necessary to work efficiently and professionally in the automotive industry
- Demonstrate the ability to maintain and repair tools and equipment in the automotive shop
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive electrical systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive driveability systems
- Demonstrate the skills and knowledge necessary for diagnosis and repair of automotive engine systems

Professional Pilot - 62 Credits

Associate in Applied Science Degree Program

The Professional Pilot program is designed to meet the needs of students who plan a career as a pilot in commercial aviation. The program leads to F.A.A. certification as a commercial pilot with an instrument rating. Graduates may also transfer to a four-year school to complete a B.S. Degree.

Applicants should be aware that certain standards for certification are required by the F.A.A. All applicants must be able to hold either a 1st, 2nd, or 3rd class medical certificate. Standards vary according to certificate/rating sought. Contact the program director for current standards.

Occupational Titles: Air Freight Pilot, Commuter Airline Pilot, Corporate Pilot, Flight Instructor.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
AVIA1211	Private Pilot: Ground	4
AVIA1212	Private Pilot: Flight Lab	2
AVIA1215	Introduction to Professional Aviation	2
AVIA1221	Commercial Pilot: Ground	2
AVIA1222	Commercial Pilot: Flight Lab I	1
AVIA1225	Aircraft Systems and Power Plant	2
AVIA2215	Aviation Safety	2
AVIA2223	Commercial Pilot: Flight Lab II	4
AVIA2224	Commercial Pilot: Flight Lab III	3
AVIA2225	Management of Aviation Service Operations	2
AVIA2231	Instrument Pilot: Ground	3
AVIA2232	Flight Instructor: Ground	3
CIS1400	Introduction to Computers	2
FIRE1556	EMS First Responder	3
FIRE1565	Wilderness Survival	2
ENGL1106	College Composition I	3
ENSC1300	Meteorology	3
PHYS1001	Fundamental Concepts of Physics	4
	Communication Elective	3
	Humanities Elective	3
	Social/Behavioral Science	3
	General Education Elective	9



Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Pass the Federal Aviation Administration Knowledge and Flight tests for a particular FAA Pilot Certificate or Rating
- Understand the historical developments of the aviation industry
- Be familiar with the various mechanical systems found on typical light aircraft that they will likely be operating
- Conduct safe flight operations as it pertains to human factors, aircraft design, environmental factors, industry practices and procedures, evolving technologies, accident investigations and conclusions
- Understand and define the elements of airport operations and their importance to the success, stability and future of the business, community and the aviation industry
- Meet the requirements to qualify for Phillips 66 Flight Line Training Certification

Truck Driving (Over-the-Road) - 15 Credits

With the ever increasing demand for professional truck drivers, student job placement from the Lake Superior College program is excellent. Training will consist of tractor-trailer basic and advanced operation techniques, safety, log books, air brakes adjustment certification and weight distribution.

Upon completion of this program, the student will have obtained a class A Commercial Drivers License and will gain the skills and knowledge to become a professional truck driver.

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
TDT1840	Basic Vehicle Operation and Control	10
TDT1850	Truck Driving Internship	3-5
	Total Credits	15

Electives:

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
ADSC1711	Computer Essentials	1
MATH1521	Calculator Technology (TI-30)	1

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Obtain a commercial drivers license (CDL)
- Practice defensive driving techniques as set forth by the National Safety Council

Wilderness Pilot - 30 Credits

Certificate Program

The Wilderness Pilot Certificate is designed to meet the needs of students who plan a career as a pilot in commercial aviation or wilderness flying. Flying experience beyond this program is required before pilots are qualified to do extensive wilderness flying. A special application is required for this program and is open only to those with extensive flight training or at least an Associates Degree.

Applicants should be aware that the FAA requires certain standards for certification. All applicants must be able to hold a 1st, 2nd, or 3rd class medical certificate. Standards vary according to certificate/rating sought. Contact the program coordinator for current standards.

Occupational Titles: Co-Pilot, Charter Pilot

<u>Course #</u>	<u>Course Title</u>	<u>Credits</u>
AVIA1211	Private Pilot: Ground	4
AVIA1212	Private Pilot: Flight Lab	2
AVIA1215	Introduction to Professional Aviation	2
AVIA1221	Commercial Pilot: Ground	2
AVIA1222	Commercial Pilot: Flight Lab I	1
AVIA1225	Aircraft Systems and Power Plant	2
AVIA2215	Aviation Safety	2
AVIA2224	Commercial Pilot: Flight Lab III	3
AVIA2225	Management of Aviation Service Operations	2
AVIA2223	Commercial Pilot: Flight Lab II	4
AVIA2231	Instrument Pilot: Ground	3
ENSC1300	Meteorology	3

Additional Elective Recommended Classes:

AVIA2232	Flight Instructor: Ground	3
FIRE1556	EMS First Responder	3

Program Outcomes

The program is designed to provide students with the knowledge and ability to:

- Pass the Federal Aviation Administration Knowledge and Flight tests for a particular FAA Pilot Certificate or Rating
- Understand the historical developments of the aviation industry
- Be familiar with the various mechanical systems found on typical light aircraft that they will likely be operating
- Conduct safe flight operations as it pertains to human factors, aircraft design, environmental factors, industry practices and procedures, evolving technologies, accident investigations and conclusions
- Understand and define the elements of airport operations and their importance to the success, stability and future of the business, community and the aviation industry
- Meet the requirements to qualify for Phillips 66 Flight Line Training Certification



Course Descriptions

Auto Body Technology

ABTE1405 Basic Welding 2 credits (F)

This course provides the student with an understanding of basic welding fundamentals and the ability to properly and safely use gas and electric welding equipment to perform welding and cutting procedures in the flat position. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

ABTE1415 Auto Body Welding 3 credits (F)

This course provides the student with an understanding of auto body repair welding fundamentals and the ability to properly and safely use gas and electric welding equipment to perform welding and cutting procedures in flat, vertical, and overhead positions. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ABTE1425 Simple Dent Repair 3 credits (F)

This course provides the student with an understanding of automobile dent repair fundamentals and the ability to properly and safely perform simple dent repair procedures on collision damaged automobile body panels. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ABTE1435 Introduction to Refinishing 3 credits (F)

This course provides the student with an understanding of automobile refinishing fundamentals and the ability to properly and safely use refinishing materials and equipment to perform basic surface preparation and material application procedures. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ABTE1440 Auto Trim & Glass Service 3 credits (F)

This course provides the student with an understanding of automobile trim and glass service techniques and the ability to properly and safely perform trim and glass removal and replacement procedures. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ABTE1455 Automotive Refinishing 3 credits (S)

This course provides the student with an understanding of automobile overall refinishing techniques and the ability to properly and safely use refinishing materials and equipment to perform overall refinishing procedures on project vehicles. (Prerequisites: ABTE1435 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ABTE1465 Collision Damage Repair 3 credits (S)

This course provides the student with an understanding of collision damage repair techniques and the ability to properly and safely perform pounding, pulling, and pushing procedures to repair collision damaged body panels. (Prerequisites: ABTE1425 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ABTE1475 Collision Damage Replacement 3 credits (S)

This course provides the student with an understanding of automobile body panel replacement techniques and the ability to properly and safely perform cosmetic and structural panel replacement procedures. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ABTE1445 Auto Mechanical Systems 3 credits (F)

This course provides the student with an understanding of automobile mechanical systems and the ability to properly and safely perform mechanical component removal, replacement, and adjustment procedures related to auto collision repair. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ABTE1485 Unibody & Frame Repair 2 credits (S)

This course provides the student with an understanding of unibody and frame alignment techniques and the ability to properly and safely perform measuring, anchoring, and straightening procedures on unibody and frame vehicles. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

ABTE1495 Auto Body Plastic Repairs 2 credits (S)

This course provides the student with an understanding of automotive plastic repair techniques and the ability to properly and safely perform automobile plastic repairs. (Prerequisites: ABTE1435 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ABTE2999 Special Topics in Auto Body Technology 1-3 credits (I)

Study of special topics in auto body technology. Special course topics will be announced in the class schedule.

Accounting

ACCT1400 Accounting Math 2 credits (F/S)

This course (also known as Business Math) is designed to teach the student how to make commonly occurring business calculations. Topics include the mathematics of buying and selling, time value of money, simple and compound interest calculations, payroll calculations, credit card and revolving credit agreements, depreciation methods, and inventory methods. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ACCT1420 Introduction to Financial Accounting (Accounting Majors) 3 credits (F/S)

Study the concepts of financial accounting and external reporting, including the nature and measurement of assets, liabilities, equities, revenues, and expenses. Emphasis placed on use and understanding of external financial statements. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

ACCT1500 Personal Finance 3 credits (F/S)

This course is designed to help the student plan for a successful financial future. Individuals are encouraged to plan their financial futures by organizing and managing their personal financial resources. Protection of financial resources is also stressed. The importance of effective investment and the growth of financial resources is emphasized. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

Term Course Codes:

(F) = Fall Semester

(S) = Spring Semester

(F/S) = Fall & Spring Semesters

(I) = Intermittent

(Arr) = Arranged

**ACCT1520 Financial Accounting:
The Double Entry System 3 credits (F/S)**

This course focuses on the analysis of the fundamental accounting equation using a systematic process to record, classify, measure, and report economic data. Students use columnar journals, posting, subsidiary ledgers, and worksheets to complete the accounting cycle and prepare financial statements. Emphasis is on the balance sheet and income statement. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

ACCT1530 Payroll Accounting 3 credits (S)

This course covers various federal and state laws pertaining to the computation of salaries, wages, and related taxes. Topics include the preparation of employment records, payroll registers, time cards, employee earnings records, and state and federal reports. A comprehensive payroll project will be completed. (Prerequisites: ACCT1420, or ACCT1520, or concurrent enrollment) (3 hrs lec/0 hrs lab/0 hrs OJT)

ACCT1550 Tax Accounting I 3 credits (S)

This course is an explanation and interpretation of the Internal Revenue Code as it relates to the preparation and filing of individual, state, and federal income tax returns. (Prerequisites: ACCT1420, or ACCT1520, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

**ACCT1600 Professional Bookkeeper Review Course
3 credits (S)**

This course is designed to prepare the student for taking the Professional Bookkeeper examination as offered by the American Institute of Professional Bookkeepers. For students not planning to take the examination, the course serves as a capstone course for review and integration of the common body of knowledge in the accounting field. (Prerequisites: ACCT1420 or ACCT1520, and ACCT1530, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

**ACCT2410 Spreadsheet Concepts and Applications
for Accounting 2 credits (F/S)**

This course covers the use of electronic spreadsheets for accounting and other business applications. Various spreadsheet models will be constructed for the purpose of illustrating the different features of the electronic spreadsheets and to provide useful tools for the solving of selected accounting problems. (Prerequisites: ADSC1430 and ACCT1420 or ACCT1520) (1 hr lec/2 hrs lab/0 hrs OJT)

ACCT2420 Intermediate Accounting I 4 credits (F)

This course is a comprehensive study of accounting theory and concepts with an analysis of the influence on financial accounting by various boards, associations, and governmental agencies. Topics include the income statement, balance sheet, statement of changes in financial position, and revenue and expense recognition. (Prerequisites: ACCT1420) (3 hrs lec/2 hrs lab/0 hrs OJT)

ACCT2430 Managerial Accounting 3 credits (S)

This course covers decision-making accounting; analysis and use of accounting information from the internal manager's perspective; and manufacturing operations, cost control and pricing decision. (Prerequisites: ACCT1420, or ACCT1520, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ACCT2450 Tax Accounting II 3 credits (F)

This course provides an explanation and interpretation of the Internal Revenue Code as applied to sole proprietorships and partnerships. Topics include business income and expenses, business tax credits, withholding and payment of estimated taxes, installment sales, and inventories. (Prerequisites: ACCT1550 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

**ACCT2460 Computerized Applications in
Accounting 2 credits (F/S)**

This course is an introduction to computerized accounting applications. Topics include computerized general ledger and payroll accounting, accounting applications for accounts receivable and accounts payable, fixed assets accounting, inventory procedures, and a computerized accounting simulation. (Prerequisites: ACCT1420 or ACCT1520) (1 hr lec/2 hrs lab/0 hrs OJT)

ACCT2520 Intermediate Accounting II 4 credits (S)

This course is the second course in a series of two courses. This course continues the comprehensive study of accounting theory and concepts with an analysis of the influence on financial accounting by various boards, associations, and governmental agencies. (Prerequisites: ACCT2420 or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

**ACCT2570 Comprehensive Review for Accreditation
in Accounting 4 credits (S)**

This course is designed to prepare the student for the Comprehensive Examination for Accreditation in Accountancy, as offered by the Accreditation Council for Accountancy and Taxation, an affiliate of the National Society of Public Accountants. For students not planning to take the comprehensive exam, this course serves as a capstone course for review and integration of the common body of knowledge in the accounting field. (Prerequisites: LGST1420, ACCT2420, AND ACCT2450, or instructor's consent) (4 hrs lec/0 hrs lab/0 hrs OJT)

ACCT2675 Fund/Nonprofit Accounting 2 credits (Arr)

This course covers the application of generally accepted accounting principles for state and local governmental units. Topics include accounting for municipalities, public schools, colleges and universities, and hospitals. Also included is accounting for churches, health and welfare organizations, and other nonprofit organizations. (Prerequisites: ACCT1420, or ACCT1520 or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ACCT2999 Special Topics in Accounting 1-3 credits (I)

Study of special topics in accounting. Special course topics will be announced in the class schedule.

Administrative Support

ADSC1415 Keyboarding I 4 credits (F/S)

This course is designed for the beginning Administrative Support student. 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. (Prerequisites: ADSC1710 or equivalent or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1416 Keyboarding II **4 credits (S)**
This course is designed for Administrative Support career students as a continuation of skill development started in Keyboarding I. Students will continue the development of keyboarding speed and accuracy and proofreading skills as well as the development of advanced formatting skills. (Prerequisites: ADSC1415 and the ability to keyboard at 40 net wpm) (3 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1420 Business Communications **3 credits (F/S)**
This course covers the development of business communication skills and applying them along with proofreading skills, when creating business documents such as letters, memos, and informal reports. (Prerequisites:   Keyboarding/word processing ability or concurrent enrollment in a keyboarding course) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1421 Business Presentations **3 credits (F/S)**
This course covers development of business communication skills in the following areas: one-to-one communications, small-and large-group presentations, business telephone usage, voice-mail techniques, conducting business meetings, listening skills, and the use of presentation software for enhancing business presentations. (Prerequisites: ADSC1420, ADSC1430 or ADSC1719, concurrent enrollment in either of these courses, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1422 Business Vocabulary/Proofreading **1 credit (F/S)**
This course aids in the mastery of business vocabulary and spelling skills and their application in proofreading business documents. (Prerequisites:   and ADSC1420 or concurrent enrollment) (1 hr lec/0 hrs lab/0 hrs OJT)

ADSC1425 Calculators/Ten-key **1 credit (F)**
This course covers development and competence using the ten-key numeric touch method. Students will develop speed and accuracy using the touch system. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1430 Integrated Office Software Applications I **3 credits (F/S)**
An introductory course in the basics of computer technology using business application software. Through hands-on use, students will learn fundamental concepts of word processing, spreadsheets, database, and presentation graphics and how they integrate. (Prerequisites: Ability to type a minimum of 20 wpm) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1431 Integrated Office Software Applications II **3 credits (F/S)**
An advanced course in the use of business application software. Students will learn additional advanced concepts of word processing, spreadsheets, database, and presentation graphics and how they integrate. (Prerequisites: ADSC1430) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1432 Integrated Office Activities **1 credit (S)**
This is a capstone course designed to integrate and reinforce skills and knowledge learned in previous courses. Through the use of simulations, students will experience daily routines, make decisions, set priorities, deal with work pressure, develop interpersonal relationships, and become aware of work quality and quantity requirements while utilizing a variety of software. Project emphasis should develop an awareness of work flow and chain of command. (Prerequisites: ADSC1430) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1440 General Office Procedures **3 credits (F)**
This course covers topics that develop skill in performing typical office tasks: telephone techniques, telecommunications, mailing, calendaring, meeting arrangements, travel arrangements, office equipment and supplies, time management, stress management, ergonomics and office safety, reprographics, and indexing and filing. (Prerequisites: ADSC1415, equivalent, or concurrent enrollment in ADSC1415) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1441 Bookkeeping **2 credits (F)**
This course covers the basic accounting cycle for service and merchandising businesses. Topics include the analysis of business transactions, recording transactions in a variety of journals, and the preparation of financial reports. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1442 Records Management **2 credits (S)**
This course is an introduction to the procedures for managing document/records storage systems. Applications include manual and/or electronic storage and retrieval. Topics include records control and retention, storage and retrieval devices, and records management issues and trends. (Prerequisites: ADSC1440, ADSC1511, ADSC1611, or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1450 Machine Transcription **1 credit (S)**
This course covers skill development in transcribing machine-dictated material into usable business documents. Emphasis will be placed on building transcription speed and accuracy; applying punctuation, grammar, and spelling rules; using reference materials; proofreading and correcting errors. (Prerequisites: ADSC1420 or concurrent enrollment, ADSC1415 or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1451 Advanced Machine Transcription **1 credit (S)**
This course covers skill development in transcribing machine-dictated business documents. Emphasis will be placed on editing techniques and efficiently utilizing software and equipment. (Prerequisites: ADSC1450) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1452 General Transcription 2 credits (S)
This course covers skill development in transcribing machine-dictated material into usable business documents. Emphasis will be placed on building transcription speed and accuracy; applying punctuation, grammar, and spelling rules; using reference materials; proofreading and correcting errors; and efficiently utilizing software and equipment. (Prerequisites: ADSC1420 or concurrent enrollment and ADSC1415 or concurrent enrollment) (0 hrs lec/4 hrs lab/0 hrs OJT)

ADSC1511 Law Office Procedures I 3 credits (F)
This course covers the integration of legal office tasks into the office setting and provides a background study of the branches of the government and the state and federal court systems. Topics include legal duties such as communicating with attorneys and clients, preparing legal correspondence and documents, preparing court documents, maintaining client records, scheduling appointments, legal time-keeping, and integrating these tasks into today's electronic office setting, as well as understanding court structures and related legal terminology. (Prerequisites:   (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1512 Law Office Procedures II 4 credits (S)
This course covers legal procedures, documents, and terminology relating to Minnesota civil, criminal, and family law. Documents are prepared using word processing and/or transcription. (Prerequisites: ADSC1415, ADSC1450, and ADSC1511) (2 hrs lec/4 hrs lab/0 hrs OJT)

ADSC1515 Law Office Applications 4 credits (F)
This course covers legal procedures, documents, and terminology relating to estate planning and estate administration proceedings, real estate law, and corporate law in Minnesota. Documents are prepared using word processing and/or transcription. (Prerequisites: ADSC1415, ADSC1450, and ADSC1511; or concurrent enrollment) (2 hrs lec/4 hrs lab/0 hrs OJT)

ADSC1517 Computers in the Law Office 3 credits (F/S)
This course covers practical computer applications in legal organizations and how the computer can be used to make the legal support staff more productive. Various types of software and legal-specific applications are covered. (Prerequisites:   basic computer skills, and completion of legal or general secretarial core courses (or recent office experience) (1 hr lec/4 hrs lab/0 hrs OJT)

ADSC1520 Legal Keyboarding 2 credits (F/S)
This course is designed to increase keyboarding speed and accuracy and to further develop keyboarding skills. Students will review basic legal terminology and procedures in various areas of the law while keying legal correspondence and legal documents. (Prerequisites: ADSC1415) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1525 Legal Transcription/Word Processing Applications 2 credits (F/S)
This course covers transcription of dictated and rough-draft legal material into a variety of usable legal documents using word processing software. Emphasis will be on authentic forms and material, editing and proofreading, and correcting errors. (Prerequisites: ADSC 1415 and ADSC 1450) (0 hrs lec/4 hrs lab/0 hrs OJT)

ADSC1530 Law Office Capstone 1 credit (F/S)
This course provides students with the opportunity to apply skills learned throughout the legal program using real-life situations and relevant document-production activities. A hands-on approach is used involving various types of law in conjunction with preparation of a program portfolio reflecting the student's personal and academic development throughout the college experience. (Prerequisites: Completion of or concurrent enrollment in ADSC1512, ADSC1515, ADSC1520 & ADSC1525) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1610 Medical Office Terminology 3 credits (F)
This course introduces word analysis by study of word roots, prefixes, suffixes, and abbreviations common to the medical office/profession. This class has a business focus with emphasis on the written aspect of medical office terminology following medical transcription rules developed by the American Association of Medical Transcriptionists. A heavy focus is placed on vocabulary building techniques to teach the meaning, spelling, correct usage and pronunciation of medical terms for accuracy in transcription, coding, and completion of insurance forms. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

ADSC1611 Medical Office Procedures I 3 credits (F)
This introductory course to medical office procedures covers medical office career opportunities, medical ethics and laws, telephone techniques, appointment scheduling, filing, patient records, mail, fee collection, and medical office pharmacology. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

ADSC1612 Medical Office Procedures II 3 credits (S)
This course is a continuation of MOPI. Medical topics covered include integration of medical office tasks: book-keeping, payroll procedures, billing, health insurance, appointment scheduling, patient data input, and CPT and ICD diagnostic coding. (Prerequisites: ADSC1611) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1614 Health Insurance and Billing 3 credits (F)
This course will provide an introduction to the various types of insurance plans, legal considerations involved in claim processing, basic steps in ICD-9-CM and CPT coding, HCPCS, and ADA coding, insurance terminology, and causes for claim rejections. (Prerequisites: ADSC1610 and ADSC1715) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1616 CPT Coding 2 credits (S)
This course provides basic knowledge of CPT coding and the purpose it serves. Basic coding facts, structure of code numbers, abbreviations, symbols, terms, book content, and coding guidelines are covered. This course introduces various types of insurance plans, legal considerations involving coding, insurance terminology, causes for claim rejection, and completion of the CPT coding portion of medical reports and insurance forms. (Prerequisites: ADSC1621) (1 hr lec/2 hrs lab/0 hrs OJT)

Term Course Codes:
(F) = Fall Semester
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(F/S) = Fall & Spring Semesters
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ADSC1621 Medical Office Anatomy & Physiology I
3 credits (F)

This business course covers human body anatomy and physiology with emphasis on spelling accuracy, terminology, abbreviations, and diagnostic and laboratory tests. A heavy focus is placed on the proper pronunciation of medical terms, diagnostic and operative terms for accuracy in medical machine transcription, coding, and insurance form completion. (Prerequisites: ADSC1610 or concurrent enrollment) (3 hrs lec/0 hrs lab/0 hrs OJT)

ADSC1622 Medical Office Anatomy & Physiology II
3 credits (S)

This business course is a continuation of Medical Office Anatomy & Physiology I. Students continue learning the body systems by studying and analyzing body structure and function with emphasis on spelling accuracy, terminology, abbreviations, and diagnostic and laboratory tests. A heavy focus is placed on proper pronunciation of medical terms, diseases, diagnostic and operative terms for accuracy in medical machine transcription, coding, medical assisting, and insurance courses. Study of diseases, organs, and structures by various anatomical systems will be covered. (Prerequisites: Completion of or concurrent enrollment in ADSC1621) (3 hrs lec/0 hrs lab/0 hrs OJT)

ADSC1625 Medical Machine Transcription
4 credits (S)

This course introduces medical machine transcription and covers transcription of dictated medical material into a variety of usable medical documents. Emphasis is on authentic forms and material, building speed and accuracy, proofreading, advanced editing, and correcting errors. (Prerequisites: ADSC1621, ADSC1415) (3 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1635 Medical Office Diagnostic Coding
4 credits (S)

This course provides basic knowledge of ICD-9 CM and CPT-4 coding and delineates the purposes they serve. Basic coding facts, structure of code numbers, abbreviations, symbols, terms, book content, and coding guidelines are covered. This course introduces various types of insurance plans, legal considerations involving coding, insurance terminology, causes for claim rejection, completion of the coding portion of medical reports, and insurance forms. (Prerequisites: ADSC1621) (3 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1640 Keyboarding Drills/Medical Emphasis
1 credit (F/S)

This course is designed to increase medical keyboarding speed and improve accuracy through personal goal setting, error analysis, and intensive corrective practice work. (Prerequisites: ADSC1624 or ADSC1625, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1710 Introduction to Keyboarding **1 credit (F/S)**

This course covers the development of basic keyboarding techniques using the touch method on the computer. Emphasis will be on learning the touch method of typing alphabetic, punctuation, and numeric keys. In addition, skill development will be included. Basic formatting and proofreading skills will be introduced. The keyboarding goal will be the attainment of a minimum rate of 20 net words per minute with accuracy. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1711 Computer Essentials **1 credit (F/S)**

A beginning level course in computer literacy. Teaches skills needed to function in a work environment to include: keyboarding, windows, Internet access, and word processing. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1712 Intro to WordPerfect **1 credit (F/S)**

This course covers the basic word processing functions students must know in order to use the computer as a writing tool. Emphasis is on saving, retrieving, printing, and editing text, with the ultimate goal of producing usable documents for advanced writing classes. (Prerequisites: Ability to type a minimum of 20 wpm or instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1713 Intro to Microsoft Word **1 credit (F/S)**

This course covers the basic word processing functions students must know in order to use the computer as a writing tool. Emphasis is on saving, retrieving, printing, and editing text, with the ultimate goal of producing usable documents for advanced writing classes. (Prerequisites: Ability to type a minimum of 20 wpm or instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1715 Word Processing **2 credits (F/S)**

This course provides students with the opportunity to learn word processing for employment or home use and to utilize a microcomputer as a word processor. Students will learn to create, edit, format, save, print manage, and enhance documents. (Prerequisites: ADSC1710 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1716 Advanced Word Processing **2 credits (S)**

This course is a continuation of Word Processing with a focus on increased proficiency. Students will learn to use Macros, Merge, Sort, Templates, Table of Contents, Styles, and Graphics. (Prerequisites: ADSC1715 or equivalent) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1718 Keyboarding Drills **1 credit (F/S)**

This course is designed to increase keyboarding speed and improve accuracy through personal goal setting, error analysis, and intensive corrective practice work. (Prerequisites: ADSC1415 or equivalent; 35 wpm) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC1719 Presentation Software **2 credits (S)**

This course covers the creation of a presentation using multimedia software package. It will allow you to create a professional presentation using a projection device attached to a personal computer. (Prerequisites: Knowledge of Windows) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC1770 Special Topics **1 credit (F/S)**

This course is designed for a student desiring to update technical course background in a particular area, whether because of transferring to LSC, returning to complete program requirements, or desiring to update in a particular word processing software package without repeating general course content. (Prerequisites: Basic keyboarding and computer skills) (0- hr lec/0-2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

ADSC2410 Desktop Publishing 2 credits (S)
This course is designed to introduce students to the concepts, terminology, techniques, and applications of desktop publishing. Students will integrate word processing and graphics and manipulate text and images as they produce professional business documents. (Prerequisites: ADSC1430 or equivalent) (1 hr lec/2 hrs lab/0 hrs OJT)

ADSC2497 Administrative Secretary Internship 3 credits (F/S)
This course is designed to provide the student with purposeful occupational experience in the Administrative Secretary Careers field. Each internship is an individualized experience. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit is equal to 48 hours of internship. (Prerequisites: Advisor's consent) (0 hrs lec/0 hrs lab/9 hrs OJT)

ADSC2520 Advanced Legal Practices 3 credits (F/S)
This course covers advanced legal procedures, use of terminology, and document production relating to various specialty areas of law in Minnesota, with an emphasis on advanced transcription and word processing skills. (Prerequisites: ADSC1525, ADSC1512, and ADSC1515) (2 hrs lec/2 hrs lab/0 hrs OJT)

ADSC2525 Legal Research 2 credits (S)
This course is an introduction to legal research. It will provide background in two areas: (1) how to find the law; and (2) how to cite the law. Students will learn to identify resources and provide assistance in legal research. (Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

ADSC2597 Legal Secretary Internship 3 credits (F/S)
This course is designed to provide the student with purposeful occupational experience in the Legal Secretary field. Each internship is an individualized experience. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit is equal to 48 hours of internship. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/9 hrs OJT)

ADSC2695 Medical Secretary Capstone 1 credit (S)
This course is designed to provide the student with challenging real-life situations and document-production activities as well as an interaction with a computer-driven software package. It will allow the medical secretary to apply the skills and knowledge acquired in the program by completing various standard documents that are used in a typical medical office setting. (Prerequisites: Completion of or concurrent enrollment in ADSC1612 and ADSC1625 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

ADSC2697 Medical Secretary Internship 3 credits (F/S)
This course is designed to provide the student with purposeful occupational experience in the Medical Secretary field. Each internship is an individualized experience set up by the program leader in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit is equal to 48 hours of internship. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/9 hrs OJT)

ADSC2999 Special Topics in Administrative Support 1-3 credits (I)
Study of special topics in administrative support. Special course topics will be announced in the class schedule.

Allied Health

ALTH1400 Introduction to Allied Health 2 credits (F/S)
This course will provide students with a foundation of knowledge and skills required for a variety of allied health occupations. Course content will include, but not be limited to, concepts such as: information on roles and responsibilities of members of the health care team, basic communication skills, legal and ethical guidelines, safety and infection precautions, and changes associated with patient life stages. In addition, students will learn about fundamental health care skills to include: vital signs, handwashing, body mechanics, patient transfer techniques, and computer information skills. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ALTH1410 Medical Terminology 1 credit (F/S)
Utilizing an independent study method of workbook/text reading and assignments, weekly tests, and computer assisted learning, this course provides the student with a working knowledge of common medical terms and abbreviations. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ALTH1420 Communication For Health Professionals 2 credits (F/S)
This course examines cultural and ethnic diversity in the United States and the profound impact this has on the delivery of health care services. Interpersonal skills of assertive communication, conflict management, problem solving, and facilitation skills will also be covered in relation to health care provider roles. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ALTH1430 ARC: First Aid & CPR/AED for Professional Rescuer 1 credit (F/S)
This course is for students pursuing health occupations. It covers the basic steps of caring for injuries and/or sudden illness, as well as information on injury and accident prevention. Content also includes systems of the human body, prevention of disease transmission, etc. The student will be required to demonstrate rescue breathing and CPR on the adult, child and infant manikins, two-rescuer CPR, use of the automated external defibrillator (AED), resuscitation masks and bag valve masks. After successful completion of the skills and written tests, the student will receive a certificate for Standard First Aid (valid for three years) and a certificate for CPR/AED for the Professional Rescuer (valid for one year). Card fee. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ALTH1435 American Red Cross First Aid & Community CPR 1 credit (S)

This course is intended for students who are not pursuing a health occupation. It covers the basic steps of caring for injuries and/or sudden illness and includes information on injury prevention. The student will be required to demonstrate CPR and rescue breathing for the infant, child, and adult. After successful completion of the skills and written tests the student will receive a Certificate for Community CPR (valid for one year) and a Certificate for First Aid (valid for one year). (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ALTH1440 Medical Ethics and Law 1 credit (F/S)

This course will introduce the health occupation students to basic ethical principles, codes of ethics, and bioethics, and laws that govern the behaviors of health care workers today. (Prerequisites: Enrolled in health program or instructor's consent) (1 hrs lec/0 hrs lab/0 hrs OJT)

ALTH2000 Lifestyles for Aging Well 3 credits (F)

Through lecture, lab, and hands-on application, students will develop and implement a wellness education program for elders that will improve their health and well being. The wellness program will involve elders who want to be active, learn more about aging and how to cope with the realities of aging. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ALTH2002 Therapeutic Interventions with Elders 2 credits (S)

The student will learn approaches to communicate effectively with elders in a variety of situations. Various modalities will be introduced to facilitate therapeutic interactions/activities with elders. Content will also include support and partnerships with family members who are caregivers. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ALTH2004 Dementia and Care Giving 2 credits (F/S)

This course will teach caregivers ways to care for patients/people with dementia by utilizing their abilities and engaging them in meaningful activities that will improve their quality of life. Understanding cognitive levels and applying the technique of activity-focused care will provide practical and success oriented approaches to care. (Prerequisites: None) (2 hrs lec/0 hr lab/0 hr OJT)

ALTH2006 Aging: Physiology and Function 2 credits (F)

This course provides an overview of the physiological changes that occur with normal aging and how these changes impact one's ability to function in daily routines. Myths and stereotypes of aging will be discussed as well as biological theories of aging. Cerebrovascular accidents, orthopedic conditions, cardiovascular conditions, etc. will be explained in term of their impact on function with elders. Students will learn about adaptations for task performance to elders can remain active. (Prerequisites: None) (2 hrs lec/0 hr lab/0 hr OJT)

ALTH2008 Special Topics in Gerontology 1-3 credits (F/S)

This course allows the student an opportunity to be self-directed in selecting, planning, implementing and evaluating a variety of projects or activities to promote understanding and competence in the area of gerontology. This course can be taken for 1, 2, or 3 credits to accommodate selected individual learning experiences. (Prerequisites: None) (0 hrs lec/2-6 hrs lab/0 hrs OJT)

ALTH2999 Special Topics in Allied Health 1-3 credits (I)

Study of special topics in allied health. Special course topics will be announced in the class schedule.

Anthropology

ANTH1110 Cultural Anthropology 3 credits (F/S)

An introduction to the concepts, methods, and theories of cultural anthropology, focusing on the range of variation and degree of uniformity in human behavior. This course will examine elements of socio-cultural systems: religion/magic, politics, social organization/kinship, economics, technology and environment. For anthropology, sociology, nursing, criminal justice, and social work majors as well as for students interested in broadening their world view. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites:   ENGL1106 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ANTH1120 Cultures of North American Indians 3 credits (S)

An examination of a variety of native North American cultures concentrating primarily on those north of Mexico. Course focus will highlight cultural systems and cultural adaptation to various geographic/environmental areas. MTC goal areas: (2) Critical Thinking, (5) History and Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites:   ENGL1106 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ANTH1125 Physical Anthropology and Archaeology 3 credits (F)

An introduction to physical anthropology and archaeology by studying the origin and development of humans and non-human hominoids. This includes an analysis of anatomy and hominid behavior by examining fossil evidence with method and theory of archaeology. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites:   ENGL1106 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ANTH1200 Anthropological Field Experience Abroad 3 credits (S)

This course is a reading, writing and travel experience which focuses on employing ethnographic methods in a field setting. May be repeated up to 9 credits. MTC goal areas: (2) Critical Thinking, (8) Global Perspective, and (10) People and the Environment. (Prerequisites: A prior course in Anthropology and ENGL1106 are highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

College Level Reading =  
College Level Writing =  

ANTH1301 Cultures of Mesoamerica 3 credits (F/S)
This course investigates current and past cultures of Mesoamerica, such as Aztec and Mayan. This course will employ both archaeological and ethnographic data in lectures, readings, films and discussion formats. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (10) People and the Environment. (Prerequisites: A prior course in Anthropology and ENGL1106 are highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ANTH2115 World Ethnography 3 credits (F/S)
A course investigating various cultures by using ethnographies. Cultures representing diverse and varied subsistence patterns, political systems, and family organizations will be studied. Such cultures may include, but are not limited to: The Kung, the Yanamamo, the Inuit, and the Masai. (This course is sophomore level.) MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (10) People and the Environment. (Prerequisites: ANTH1110, ENGL1106) (3 hrs lec/0 hrs lab/0 hrs OJT)

ANTH2999 Special Topics in Anthropology 1-3 credits (I)
Study of special topics in anthropology. Special course topics will be announced in the class schedule.

Architectural Technology

ARCH1400 Intro to Architecture 3 credits (F)
This course covers the basic principles and applications of architecture. Concepts of planning and space utilization are explored in conjunction with regulatory requirements. An exposure to architectural history is given, along with an overview of architecture's current role in the construction industry. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ARCH1411 Materials and Methods I 2 credits (F)
This course covers the technical aspects and proper application of building materials as used in the systems of light frame construction. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ARCH1415 Project Lab I 6 credits (F)
This course covers an introduction to print reading, the use of drafting tools, and the production of drawings for light frame construction. Three-dimensional visualization skills are developed through technical drawing exercises. It is intended that ARCH1425 be taken concurrently. Students will apply both manual and CAD drafting methods for the project drawings of this course. (Prerequisites: None) (2 hrs lec/8 hrs lab/0 hrs OJT)

ARCH1420 Intro to Structures 2 credits (F)
This course covers basic structural theory, the calculation of loads on a system of structural members, and the use of published load tables to select structural members. (Prerequisites: MATH0450, or assessment score placed at or above MATH0460 or MATH1531) (2 hrs lec/0 hrs lab/0 hrs OJT)

ARCH1425 Architectural CAD I 3 Credits (F)
In this course students are introduced to industry standard CAD software using the MS Windows environment and file management. A combination of lecture and hands-on lab is used to develop a solid foundation for two-dimensional architectural CAD drafting. (Prerequisites: None) (1 hrs lec/4 hrs lab/0 hrs OJT)

ARCH1430 Architectural Design-Criteria/Constraints 3 credits (S)
This course outlines criteria for preliminary design and establishes practical guidelines for the development and implementation of a building's architectural program. Specific attention is given to identifying and applying the various regulatory requirements of current code publications. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ARCH1441 Materials and Methods II 3 credits (S)
This course covers the technical aspects and proper application of building materials as primarily used in the systems of commercial construction. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

ARCH1445 Project Lab II 4 credits (S)
This course covers commercial print reading and the production of working drawings for commercial construction. It is intended that ARCH1455 be taken concurrently. Focus is placed on application of CAD drafting. (Prerequisites: ARCH1415) (1 hrs lec/6 hrs lab/0 hrs OJT)

ARCH1455 Architectural CAD II 3 credits (S)
This course develops efficiency in two-dimensional techniques and applies office standards for CAD such as the use of line weights and layer guidelines. Students are introduced to three-dimensional modeling and rendered presentation drawings. The lab focuses on applying architectural criteria to CAD drawing production. (Prerequisites: ARCH1425 or CADE1407) (1 hr lec/4 hrs lab/0 hrs OJT)

ARCH2400 Mechanical & Electrical Systems 4 credits (F)
This course covers the principles of heat loss, heating, ventilation, plumbing, and electrical systems. Lab exercises include the reading, layout, and development of mechanical and electrical plans. (Prerequisites: ARCH1445) (2 hrs lec/2 hrs lab/0 hrs OJT)

ARCH2405 Architectural CAD III 2 credits (F)
This course covers the utilization of advanced CAD tools and techniques. Advanced 3-D modeling and rendering techniques help students communicate a design. CAD customization and management concepts are applied to lab assignments. (Prerequisites: ARCH1455) (1 hr lec/2 hrs lab/0 hrs OJT)

ARCH2435 Project Lab III 6 credits (F)
This course identifies the myriad of concerns facing the architectural detailer and describes how solutions can be approached by applying criteria which is essential for the successful performance of a building. Projects include team design activities with a focus placed on the detail development of various building systems covered in previous coursework. (Prerequisites: ARCH1441, ARCH1445) (2 hrs lec/8 hrs lab/0 hrs OJT)

ARCH2460 Commercial Project 6 credits (S)
This course synthesizes an architectural program with environmental and regulatory requirements in the development of a coherent building concept. Design/construction drawings are developed for a commercial building based on an interdisciplinary approach to building systems. (Prerequisites: ARCH2435) (1 hr lec/10 hrs lab/0 hrs OJT)

ARCH2470 Structural Applications 3 credits (S)
This course covers the development of structural framing plans and the associated details for various construction materials. (Prerequisites: ARCH1445) (1 hr lec/4 hrs lab/0 hrs OJT)

ARCH2999 Special Topics in Architectural Technology 1-3 credits (I)
Study of special topics in architectural technology. Special course topics will be announced in the class schedule.

Art

ART1110 2-Dimensional Design 3 credits (F/S)
A hands-on introduction to the language of art emphasizing the principles and elements of two-dimensional forms, principles of perception, and the design process. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1115 Painting I 3 credits (F)
Introduction to traditional and contemporary painting concepts, techniques, and strategies for seeking new forms of expression, better ways to interpret subjects, and new avenues of self discovery. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1116 Advanced Painting 3 credits (S)
Advanced painting concepts and strategies exploring alternative avenues to expression, technique, and methods of painting. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ART1115 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1118 Understanding Art 3 credits (F/S)
An introduction to human creativity and expression in the visual arts from a global perspective. Students will view and discuss works from a wide spectrum of human history and world cultures with an emphasis on expression, style, and artistic meaning. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: College level reading and writing)(3 hrs lec/0 hrs lab/0 hrs OJT)

ART1120 Introduction to Art History 3 credits (F)
An introduction to the history of art emphasizing the social context and historical fabric out of which art has developed. The time period covered by this class is from prehistoric to approximately 1400 A.D. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective) (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

ART1122 Art History: Renaissance to the Present 3 credits (S)
This course covers the history of art from the beginning of the Renaissance period through to the present. This course will focus on the various roles art and artists play in different cultures and time periods. Students do not need Introduction to Art History to take this course. MTC goal areas (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

ART1125 Watercolor 3 credits (F/S)
A studio course presenting practical and creative knowledge for students at any level who want to develop, explore, and experiment with the exciting possibilities of the watercolor medium. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1130 Introduction to the Studio Arts 3 credits (F/S/I)
A lecture-based study of visual art making, the creative process, and pluralistic forms of visual expression with emphasis on media, process, technique, and the environment of the artist. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (9) Ethic and Civic Responsibility. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

ART1138 Ceramics I 3 credits (F/S)
Working with ceramic techniques emphasizing slab, pinch, coil, and wheel methods of clay construction. A personal property fee will be charged in addition to tuition. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1139 Ceramics II 3 credits (I)
Intermediate-level ceramic hand-building, wheel throwing, decorating, glazing, and firing methods. A personal property fee will be charged in addition to tuition. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ART1138 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1140 Ceramics III 3 credits (F/S)
Advanced level ceramic methods in hand-building, wheel throwing, glazing, and kiln firing. A personal property fee will be charged in addition to tuition. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ART1139 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1151 Drawing I 3 credits (F/S)
An introduction to traditional and contemporary drawing concepts and techniques through structured studio experiences in drawing and "seeing" drawings. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1152 Drawing II 3 credits (S)
An advanced study of drawing concepts and techniques with emphasis on discovering new avenues to self expression. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ART1151 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1160 Print-making 3 credits (S)
An introduction to traditional contemporary printing methods focusing on concepts, materials, and techniques. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1165 Introduction to Metal Art/Jewelry 3 credits (I)
An introduction to basic hand-fabrication techniques and processes using non-ferrous metals as small sculptural forms or jewelry. Avenues of study include layout, shaping and fitting mating parts, finishing and hand-soldering of projects. Students are required to purchase hand tools. MTC goal areas: (6) Humanities and Fine Arts (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART1199 Special Topics in Art 1-3 credits (I)
Study of various topics in Art History and Studio Art. May focus on a stylistic period, cultural group, or technical process. Topics will be announced prior to course offering. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (Variable 0-3 hrs lec/0-6 hrs lab/0 hrs OJT)

ART1210 3-Dimensional Design 3 credits (F/S)
An exploration of the principles, skills, and processes of 3-dimensional design that form the language of art. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART2100 Sculpture 3 credits (F/S)
This course provides an opportunity to explore a variety of approaches and techniques of 3-dimensional forming or sculpting in a studio environment. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART2105 Sculptural Casting in Clay 3 credits (F)
This course includes working with sculpture modeling, mold making, and casting techniques using clay, plaster, and casting slip. A personal property fee will be charged in addition to tuition. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

ART2999 Special Topics in Art 1-3 credits (I)
Study of special topics in art. Special course topics will be announced in the class schedule.

Automotive Service Technology

ASTE1400 Introduction to Transportation 3 credits (F)
This course provides the student with a basic understanding of automobile design and the ability to properly and safely perform basic service and repair procedures in the automotive industry. Use of service manuals, flat rate manuals, bulletins, trouble shooting charts, compact disc information retrieval systems, and Internet resources will be introduced. Emphasis will be placed on developing diagnostic skills and interpreting specifications. Minor automotive service and introduction to automotive systems will be covered in lab. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ASTE1410 Air Conditioning 2 credits (F)
This course covers the principles of air conditioning. The various types, diagnosis of malfunctions, testing, and repair are included. Emphasis will be placed on environmentally friendly repair procedures. Practical experience is gained on live systems; diagnosis, recovery, charging, and performance testing of systems. (Prerequisites: ASTE 1400, concurrent enrollment, or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ASTE1430 Auto Electrical Fundamentals 3 credits (F)
This course covers the fundamentals of electricity and electronics, sources of electricity, circuits, magnetism, resistance, coils, capacitance, diodes, and solid state devices as they are related to the automobile. Use of meters will be emphasized. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

ASTE1440 Body Electrical and Electronics 3 credits (S)
This course covers the operation, servicing techniques of chassis wiring, lights, instruments, headlight aiming, and how to read and interpret wiring diagrams. (Prerequisites: ASTE1430) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE1450 Engine Service 5 credits (S)
This course covers the fundamentals of engine operation, repair, and maintenance. The procedures for rebuilding, precision measurement, parts and failure identification will be presented. Cylinder block and head disassembly and repair will be performed. (Prerequisites: ASTE1400 or instructor's consent) (2 hrs lec/6 hrs lab/0 hrs OJT)

ASTE1460 Basic Fuel System Service 2 credits (S)
This course covers the theory and principles of automotive fuel systems including carburetors, fuel pumps, fuel tanks, filters, and emission control systems associated with fuel systems on the automobile. Diagnosis, adjustments, and repair of components will be emphasized. (Prerequisites: ASTE1400 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ASTE1470 Basic Engine Driveability 3 credits (S)
This course covers the theory and principles of automobile ignition systems, subsystems, and related emission components. Engine mechanical troubleshooting and diagnosis will be emphasized. Engine analyzers and diagnostic equipment will be introduced. (Prerequisites: ASTE1400, ASTE1430, or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE1480 Basic Hydraulics 1 credit (F)
This course covers basic hydraulic principles and application. There are both classroom and lab settings. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

ASTE1500 Charging & Starting Systems 3 credits (S)
This course covers the theory of starting motors and charging systems. Testing procedures, parts identification, and circuit testing will be included. Emphasis will be placed on diagnosis and troubleshooting procedures. (Prerequisites: ASTE1400, ASTE1430, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

ASTE2400 Suspension and Steering Repair 3 credits (S)

This course covers the theory, history, and repairs of various steering and suspension systems using coil springs, leaf springs, torsion bars, McPherson struts, and modified struts. It also covers operation and repairs to various steering systems. (Prerequisites: ASTE1400, MATH1440) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE2410 Basic Wheel Alignment 2 credits (F)

This course covers suspension systems using leaf springs, coil springs, McPherson struts, and torsion bars along with the various procedures required to check and adjust wheel alignment angles such as caster, camber, and toe. (Prerequisites: ASTE1400) (1 hr lec/2 hrs lab/0 hrs OJT)

ASTE2420 Advanced Wheel Alignment 2 credits (S)

This course covers the method of four-wheel alignment checks and correction procedures and any changes in front or rear suspension systems. (Prerequisites: ASTE1400, ASTE2400, and ASTE2410) (0 hr lec/4 hrs lab/0 hrs OJT)

ASTE2430 Clutch & Differential 3 credits (S)

This course covers automotive and light truck clutches. Content includes design, adjustment, diagnosis, and repair. Mechanical and hydraulic systems are presented. Drive line phasing, alignment, balance, and universal joint replacement are included. Repair procedures and theory of differential operation are also covered. (Prerequisites: ASTE1400 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE2440 Brakes 4 credits (S)

This course covers the principles of brakes, hydraulic system fundamentals, disc and drum brakes, parking brakes, and power assist units. Emphasis will be placed on diagnosis and repair of various types of braking systems. Anti-lock braking systems with electronic control systems are also covered. (Prerequisites: ASTE1400 and ASTE1480 or instructor's consent) (2 hrs lec/4 hrs lab/0 hrs OJT)

ASTE2450 Transmission Theory 3 credits (F)

This course covers basic theory of torque converters, planetary gears, clutches, bands and hydraulics. The class stresses how automatic and manual transmissions work, their basic parts, function, and power train. (Prerequisites: ASTE1400, ASTE1430, and ASTE1480) (3 hrs lec/0 hrs lab/0 hrs OJT)

ASTE2460 Transmission Lab 3 credits (F)

This course covers hands-on lab experience in which various transmissions and transaxles are overhauled, adjusted and bench tested. Basic overhaul techniques, special tool, and gauge usage are taught. (Prerequisites: ASTE1400, ASTE1430 and ASTE2450) (0 hr lec/6 hrs lab/0 hrs OJT)

ASTE2470 Introduction to Automotive Computers 3 credits (F)

This course covers theory and operating principles of automotive computers, sensors, and control devices. (Prerequisites: ASTE1400, ASTE1430, and ASTE1470) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE2480 Advanced Air Conditioning 3 credits (S)

This course expands on the principles of air conditioning covered in ASTE1410. Emphasis will be on becoming more proficient in diagnosis, recovery, charging, and performance testing. Emphasis will be placed on major and minor component replacement procedures. All repairs will be accomplished using environmentally safe procedures. (Prerequisites: ASTE1400 and ASTE1410)

ASTE2500 Fuel Systems II 3 credits (F)

This course will cover computer controlled carburetors and throttle body or multiple injection systems. (Prerequisites: ASTE1400, ASTE1430, ASTE1460, and ASTE2470) (1 hr lec/4 hrs lab/0 hrs OJT)

ASTE2510 Advanced Engine Driveability 4 credits (F)

This course covers skills in diagnosing, testing, and correcting problems related to engine performance. The course concentrates on computer controlled systems. (Prerequisites: ASTE1400, ASTE1430, ASTE1460, ASTE1470, and ASTE 2500) (2 hrs lec/4 hrs lab/0 hrs OJT)

ASTE2999 Special Topics in Automotive Service Technology 1-3 credits (I)

Study of special topics in automotive service technology. Special course topics will be announced in the class schedule.

Air Force ROTC

The Air Force Reserve Officer Training Corps (AFROTC) at the University of Minnesota, Duluth (UMD) is a college-level educational program that gives students the opportunity to become Air Force officers while completing their degrees. Any Lake Superior College student may enroll in aerospace studies courses. AFROTC offers post-collegiate opportunities in more than 100 career specialties. Air Force officers are challenged with organizational responsibilities and experiences not often available to new college graduates. This program is for students who want to challenge themselves as Air Force leaders and managers while serving their country in a professional, high-tech environment. Active-duty Air Force officers provide a curriculum that gives students insight into the mission, organization and operation of the U.S. Air Force. Students study Air Force history, leadership, management, and professionalism, as well as U.S. foreign policy and its relationship to defense policy.

Scholarships covering tuition, fees, books, and a monthly stipend are available on a competitive basis. Please contact the AFROTC program at UMD for additional information on the program and scholarship opportunities at 218-726-8159.

College Level Reading = 
College Level Writing = 

AVIA1000 The Foundations of the U.S. Air Force I **1 Credit (F)**

First half of a two-part survey course of U.S. Air Force as a public-service organization covering the role of the military in U.S. society; military history; officership; professionalism; core values; career opportunities; customs/courtesies; communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing followership experiences. (Must register through UMD AFROTC program for the Leadership Laboratory.)

AVIA1005 The Foundations of the U.S. Air Force II **1 Credit (S)**

Second half of a two-part survey course of U.S. Air Force as a public-service organization covering the role of the military in U.S. society; military history; officership; professionalism; core values; career opportunities; customs/courtesies; communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing followership experiences. (Must register through UMD AFROTC program for the Leadership Laboratory.)

AVIA2000 The Evolution of U.S. Air Force Air and Space Power I **1 Credit (F)**

First half of a two-part survey course covering Air Force heritage; development/deployment of air power, a primary element of U.S. national security; leadership and quality principles; ethics and values. Emphasis on leadership development based on student participation in group problem solving and oral/written communication development. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing followership experiences. (Must register through UMD AFROTC program for the Leadership Laboratory.)

AVIA2005 The Evolution of U.S. Air Force Air and Space Power II **1 Credit (S)**

Second half of a two-part survey course covering Air Force heritage; development/deployment of air power, a primary element of U.S. national security; leadership and quality principles; ethics and values. Emphasis on leadership development based on student participation in group problem solving and oral/written communication development. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing followership experiences. (Must register through UMD AFROTC program for the Leadership Laboratory.)

Aviation

AVIA1211 Private Pilot: Ground **4 credits (F)**

This course serves as a preparation for the FAA Private Pilot knowledge test which will be taken upon successful completion of the course. Course content includes all necessary FAA regulations, weather, radio navigation and communication, flight safety, and emergency procedures. The student may receive a Private Pilot Certificate upon completion of this course. (Prerequisites:  or equivalent) (4 hrs lec/0 hrs lab/0 hrs OJT)

AVIA1212 Private Pilot: Flight Lab **2 credits (F)**

This is a beginning dual and solo flight instruction course required for the Private Pilot Certificate. Instruction includes: pre-flight preparation, safety, air traffic control procedures, navigation, communication and pilot judgment. Successfully testing for the Private Pilot Certificate is required to fulfill course requirements. 60 flight hours minimum. (Prerequisites: AVIA1211) (0 hrs lec/4 hrs lab/0 hrs OJT)

AVIA1215 Introduction to Professional Aviation **2 credits (F)**

This course provides a broad understanding of the historical development of the aviation industry. Course material includes an examination of federal and state regulations and the basis for their establishment. Requirements of the past, present, and future with respect to airports and supporting facilities will be reviewed and evaluated, as well as employment projections for aviation related careers. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

AVIA1221 Commercial Pilot: Ground **2 credits (S)**

This course introduces the student to commercial pilot maneuvers, aircraft systems, aerodynamics, and human factors relevant to aviation. Emphasis will be placed on Federal Aviation Regulations relevant to commercial flight and the federal airspace system. Upon successful completion of this course, the student will be prepared to take the FAA Commercial Pilot Knowledge test. (Prerequisites: AVIA1211,  or equivalent) (2 hrs lec/0 hrs lab/0 hrs OJT)

AVIA1222 Commercial Pilot: Flight Lab I **1-2 credits (S)**

This flight lab will concentrate on cross-country flying; pilotage, dead reckoning, radio navigation, communication procedures, airport operations, and weather evaluations. (Prerequisites: AVIA1221) (0 hrs lec/2 hrs lab/0 hrs OJT)

AVIA1225 Aircraft Systems and Power Plant **2 credits (S)**

This course serves as an introduction to electrical, hydraulic and mechanical systems, as well as aircraft structure and design. Engine theory and operation including lubrication, carburetion, ignition, supercharging and propellers will be examined. (Prerequisites: AVIA1211,  or equivalent) (2 hrs lec/0 hrs lab/0 hrs OJT)

AVIA2000 The Air Force Way I **1 credit (F)**

A two-part survey course covering Air Force heritage; development/deployment of air power, a primary element of US national security; leadership and quality principles; ethics and values. Emphasis on leadership development based on student participation in group problem solving. Oral/written communication development emphasized. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

AVIA2005 The Air Force Way II **1 credit (S)**

The second half of a two-part survey course covering Air Force heritage; development/deployment of air power, a primary element of US national security; leadership and quality principles; ethics and values. Emphasis on leadership development based on student participation in group problem solving. Oral/written communication development emphasized. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

AVIA2215 Aviation Safety 2 credits (S)
This course provides the student with an overview of factors necessary for safe flight operations. Students will examine factors influencing pilot performance, aircraft design considerations, external environmental factors, human factors and the aviation system as they relate to accident prevention. (Prerequisites: FAA Airman Certification,   or equivalent)

AVIA2223 Commercial Pilot: Flight Lab II 1-4 credits (F)
This course is an introduction to instrument flight procedures in single engine aircraft. This course may be completed when the student acquires and instrument rating. (Prerequisites: AVIA1222 and AVIA2231) (0 hrs lec/8 hrs lab/0 hrs OJT)

AVIA2224 Commercial Pilot: Flight Lab III 2-3 credits (S)
This course is a culmination of commercial flight training. This course will concentrate on completion of requirements for receiving certification as a commercial pilot single-engine airplane. (Prerequisites: AVIA2223) (0 hrs lec/6 hrs lab/0 hrs OJT)

AVIA2225 Management of Aviation Service Operations 2 credits (S)
This course will present to the student the elements of airport operations and their importance to the success of the business. Course material will include the study of the duties and responsibilities of an airport manager and other employees. Students will also complete training that will qualify them for Phillips 66 Flight Line Training Certificate. (Prerequisites:   or equivalent) (2 hrs lec/0 hrs lab/0 hrs OJT)

AVIA2231 Instrument Pilot: Ground 3 credits (F)
This course provides the student with an understanding of the techniques used for departure, en route navigation and approach segments of flights conducted under instrument flight rules. Federal Aviation Regulations will be covered in detail as will Radio Navigation and Communication. To complete the course the student must pass the FAA Instrument Pilot Written Examination. Multi-engine aerodynamics, flight characteristics and systems will also be presented. Emphasis will be placed on procedures necessary for safe multi-engine operation. (Prerequisites: AVIA1211, AVIA1212, Private Pilot Certificate,   ) (3 hrs lec/0 hrs lab/0 hrs OJT)

AVIA2232 Flight Instructor: Ground 3 credits (S)
This course provides the student with basic information leading to the flight instructor certificate. The course is divided into two areas: fundamentals of teaching and learning, including effective teaching methods helpful to flight instruction, components of the flight training syllabus and flight instructor responsibilities and A/C systems, aerodynamics, FARs weight and balance, performance charts, and physiology as it relates to the private, commercial and flight instructor certificates. (Prerequisites: Instrument Rating Airplane or AVIA2231) (3 hrs lec/0 hrs lab/0 hrs OJT)

AVIA2233 Certified Flight Instructor Lab 1 credit (Arr)
This course provides the student with the necessary flight training to obtain an FAA Certified Flight Instructor Certificate. Flight instruction covers all maneuvers necessary for teaching private and commercial students. (Prerequisite: AVIA2224) (0 hrs lec/2 hrs lab/0 hrs OJT)

AVIA2235 Survival and Rescue 1 credit (S)
This course will present common techniques used for survival and rescue in remote locations. Included will be basic instructions regarding human factors relative to survival in cold, wet and desert situations. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

AVIA2242 Wilderness and Seaplane Ground 1 credit (Arr)
This course explores unique problems encountered when operating an aircraft in remote areas. The course will give special attention to safety precautions, wilderness navigation, and climate factors which are critical to wilderness operations. Ground instruction for obtaining a commercial seaplane rating. Among the procedures which the student will be introduced to are sailing, docking, glassy water operations, nomenclature, care and operation of a seaplane. (Prerequisites: AVIA2224,   or equivalent) (1 hr lec/0 hrs lab/0 hrs OJT)

AVIA2243 Seaplane Flight Lab 1 credit (Arr)
This course provides dual float plane instruction necessary to acquire a commercial single engine sea rating. 10 hours minimum. (Prerequisites: AVIA2242, Commercial Pilot Certificate) (0 hrs lec/2 hrs lab/0 hrs OJT)

AVIA2999 Special Topics in Aviation 1-3 credits (I)
Study of special topics in aviation. Special course topics will be announced in the class schedule.

Broadcasting

BDCT1411 Intro to Radio 3 credits (F)
This course offers students training in basic equipment operation with an emphasis on announcing news, music programs and commercials. Voice manipulation, copy preparation and equipment usage are emphasized. Students will also be introduced to audio production techniques. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

BDCT1412 Radio Production 3 credits (S)
This course covers advanced radio production techniques and announcing skills. Emphasis is on digital equipment operation and FCC regulations. (Prerequisites: BDCT1411) (1 hr lec/4 hrs lab/0 hrs OJT)

BDCT1450 Applied Radio 1-2 credits (F/S)
This course provides "hands-on" training for students seeking careers as radio announcers. Students operate closed-circuit KLSC Radio two hours per week for each credit taken. This course may be taken as one or two credits. (Prerequisites: BDCT1411 or instructor's consent) (0 hrs lec/2-4 hrs lab/0 hrs OJT)

Term Course Codes:
(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

BDCT1511 Television Production I 4 credits (F)
This course will introduce the student to television production, basic terms and equipment use. Videotape shooting in the field and editing are included. (Prerequisites: None) (2 hrs lec/4 hrs lab/0 hrs OJT)

BDCT1512 Television Production II 4 credits (S)
This course will give the student an in-depth look at television production, including advanced editing techniques, in-studio production, graphics, switching, and directing. (Prerequisites: BDCT1511) (2 hrs lec/4 hrs lab/0 hrs OJT)

BDCT1610 The Business of Broadcasting & Advertising 3 credits (F)
This course provides a general overview of Broadcasting as a business and how it relates to the advertising industry. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

BDCT1620 Radio/TV Copywriting 4 credits (F)
This course covers the techniques for writing commercials, public service announcements, and promotional announcements for radio and television. (Prerequisites: None) (4 hrs lec/0 hrs lab/0 hrs OJT)

BDCT1640 Broadcast Journalism 3 credits (S)
This course introduces the student to the procedures and equipment used in broadcast news gathering, writing, and reporting. Students will learn how to identify a newsworthy story, how to conduct an interview and gather facts, and how to write and prepare broadcast news reports. Legal issues are also covered. (Prerequisites: BDCT 1411 and BDCT1511) (2 hrs lec/2 hrs lab/0 hrs OJT)

BDCT1670 Broadcast Management & Programming 2 credits (S)
This course covers the principles of broadcast station management and programming. Students will develop an understanding of the operation of radio and television stations, of audience rating methods and their impact on programming design, and the duties of the manager and program director of radio and TV stations. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

BDCT1680 Radio/TV Sales 2 credits (S)
This course introduces the student to the principles and methods used in broadcast advertising sales. Students will prospect accounts, write proposals, and make sales calls. (Prerequisites: BDCT1610) (2 hrs lec/0 hrs lab/0 hrs OJT)

BDCT1797 Broadcast Internship 1-3 credits (F/S)
This course is an arranged and supervised internship at a broadcast station. A signed contract outlining goals and expectations, methods of supervision, and evaluation standards will be drawn for each student. BDCT1797 may be taken as one, two, or three credits. (Prerequisites: BDCT 1411 and BDCT1511 or instructor's consent) (0 hrs lec/0 hrs lab/3-9 hrs OJT)

BDCT1799 Broadcast Practicum 1-3 credits (F/S)
This course deals with supervised independent study and/or projects in one or more phases of broadcasting. A signed contract outlining goals and expectation, methods of supervision, and evaluation standards will be drawn for each student. BDCT1799 may be taken as one, two, or three credits per semester. (Prerequisites: BDCT1411 and BDCT1511 or instructor's consent) (0 hrs lec/2-6 hrs lab/0 hrs OJT)

BDCT2999 Special Topics in Broadcasting 1-3 credits (I)
Study of special topics in broadcasting. Special course topics will be announced in the class schedule.

Biology

BIOL1000 Human Body in Health and Disease 5 credits (F/S)
This course is an introduction to body structure and function and their correlation to basic disease processes. Also included are basic cell structure and function, and an introduction to genetic principles. MTC goals areas: (2) Critical Thinking, (3) Natural Sciences, and (9) Ethic and Civic Responsibility. (Prerequisites:  ) (4 hrs lec/2 hrs lab/0 hrs OJT)

BIOL1002 Essential Skills and Concepts for Biology and Health 2 credits (F/S)
A survey and review of concepts and processes essential for understanding biology and health sciences. Includes laboratory exercises designed to build essential laboratory and learning skills for success in these fields. Topics include homeostasis, chemistry of life, cell structure, transport mechanisms, metabolism, gene expression, cell division, laboratory safety, units and measurement, graphs and averages, scientific method, microscope use, and study and test taking skills for science courses. Satisfies the Intro to Cell Biology prerequisite for Biology courses. (This course does not fulfill the lab sciences requirement for the AA degree.) (Prerequisites: College level reading or Reading score of 65 or above with concurrent enrollment in READ0460) (0 hrs lec/4 hrs lab/0 hrs OJT)

BIOL1005 Introduction to Cell Biology 1 credit (F/S)
An introduction to the field of cell biology with a focus on the basic unit of life, the cell - its function, chemistry, metabolism, and structure. Must be passed with a grade of "C" or better to qualify as a prerequisite for other Biology courses. (Prerequisites:  ) (0 hrs lec/2 hrs lab/0 hrs OJT)

BIOL1105 Biology of Women 3 credits (F/S)
An exploration of aspects of biology specific to women. The following topics will be emphasized: anatomy and physiology, reproductive biology, health issues which disproportionately affect women (eating disorders, osteoporosis, breast cancer, etc.), aging, genetic defects, hormones as they relate to women's life styles and reproduction, nutrition, and cultural views on women's reproductive biology. Not limited to women. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (7) Cultural Diversity. (Prerequisites:  ) (2 hrs lec/2 hrs lab/0 hrs OJT)

BIOL1110 Minnesota's Natural Heritage 4 credits (F)
An introduction to the distribution, ecology, and management of Minnesota's biological resources. Ecological principles will be learned and applied to understand ecosystem function and implications for human use and management decisions. Field trips to regional natural and managed communities. Invited guest speakers will address local and regional issues. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites:  ) (2.5 hrs lec/3 hrs lab/0 hrs OJT)

BIOL1120 Principles of General Biology **5 credits (F/S)**

An introduction to the field of biology focusing on unifying biological principles. Includes the scientific method, biological molecules, metabolism, cell theory, cell structure and function, cellular reproduction, introductory genetics, evolution, ecology and species diversity. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites:   (4 hrs lec/2 hrs lab/0 hrs OJT)

BIOL1130 General Biology of Organisms **5 credits (S)**
Introduction to the classification, function, and structure of microbes, plants, and animals. Includes cellular characteristics unique to each kingdom, general anatomy and physiology, reproduction and development, genetics, evolution, phylogeny, ecology, and population dynamics. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites: BIOL1002, BIOL1120, or BIOL1005, with a grade of "C" or better) (3 hrs lec/4 hrs lab/0 hrs OJT)

BIOL1140 Human Anatomy and Physiology I **4 credits (F/S)**

A study of organ systems and tissues including integumentary, skeletal, muscular and nervous systems. Included is the study of integrated control mechanisms of physiology incorporating principles of chemistry, biochemistry, and molecular biology. For students in health-related fields. Helps to fulfill general education lab-science requirements. Includes laboratory dissections. MTC goal area: (2) Critical Thinking, (3) Natural Sciences. (Prerequisites: BIOL1002, BIOL1120, or BIOL1005 with a grade of "C" or better or test out) (2.5 hrs lec/3 hrs lab/0 hrs OJT)

BIOL1141 Human Anatomy and Physiology II **4 credits (F/S)**

Continued study of body structure and function. Incorporates principles of chemistry, biochemistry, and molecular biology. A study of the cardiovascular system, immune system, respiratory system, urinary system, digestive system, endocrine and reproductive systems. For students in health related fields. Helps to fulfill general education lab-science requirements. Includes laboratory dissections. Builds on principles studied in BIOL1140. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: BIOL1140) (2.5 hrs lec/3 hrs lab/0 hrs OJT)

BIOL1150 Human Anatomy **4 credits (F/S)**

A study of human anatomy covering basic histology and the structure of body systems. Includes histology and integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: BIOL1002 or BIOL1005,   (2.5 hrs lec/3 hrs lab/0 hrs OJT)

BIOL1160 Human Physiology **4 credits (F/S)**

A study of the functional relationships of the organ systems in the human body, biomolecular structure of important physiological molecules, and interrelationships of all life processes emphasizing homeostasis. Requires the use of variables, exponents, and logarithms to solve physiological equations. Lab experimentation. MTC goal areas: (2) Critical Thinking and (3) Natural Science. (Prerequisites: BIOL1150 with a grade of "C" or better or INEC student and successful completion with a grade of "C" or better in Integrated Science. College-level math required, and   successful completion of a college chemistry course suggested) (3 hrs lec/2 hrs lab/0 hrs OJT)

BIOL1170 Microbiology **3 credits (F/S)**

A study of the classification, structure, and function of microbes, with an emphasis on disease-causing bacteria, viruses, protozoa, and fungi. Includes: Control of microbial growth, basic laboratory techniques used in microbiology, use of the microscope for viewing microbes, staining techniques, bacterial morphology and staining patterns, preparation of culture media, culture techniques, and microbial identification techniques. For students in health fields or students seeking a science course with laboratory for their liberal arts education. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: BIOL1002 or BIOL1120 or BIOL1150 or BIOL1005 with a grade of "C" or better or test out) (2 hrs lec/2 hrs lab/0 hrs OJT)

BIOL2160 Advanced Physiology **2 credits (F/S)**

A more in-depth study of human physiology. Emphasizes integration of homeostatic control focusing on neuroendocrine physiology, musculoskeletal physiology, cardiopulmonary physiology, fluid and electrolyte balance, digestion, and immunology. Includes discussion of common pathologies affecting each body system and the use of variables, exponents, and logarithms to solve physiological equations. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: Successful completion of either BIOL1140 and BIOL1141 or BIOL1160, college-level math and   (2 hrs lec/0 hrs lab/0 hrs OJT)

BIOL2200 General Ecology **4 credits (F/S)**

Exploration of principles that govern relationships between organisms and the environment for individuals, populations, communities, and ecosystems. Includes survey of local biological communities, experience in field observations and techniques, data collection, analysis, and interpretation. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites: BIOL1130 or equivalent, or instructor's consent) (2.5 hrs lec/3 hrs lab/0 hrs OJT)

BIOL2205 Limnology **3 credits (F/S/I)**

A study of the biological, chemical and physical characteristics and interrelationships of inland lakes and streams. Different sampling methods and assessment techniques will be used to explore the ecology of aquatic ecosystems. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites: BIOL1120 and BIOL1130; CHEM1210 recommended) (2 hrs lec/2 hrs lab/0 hrs OJT)

BIOL2210 Genetics **4 credits (I)**
Introduction to genetics concepts and applications, with an emphasis on human genetics. Topics covered include: DNA, genes, Mendelian and non-Mendelian inheritance, molecular genetics, genetic manipulation of organisms, population genetics, applications and case studies related to human health and disease, bioethical discussions involving current genetic therapies and genetic research, and a study of genetic technology. Designed for allied health students, biology majors, and liberal arts students. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (9) Ethic and Civic Responsibilities. (Prerequisites: BIOL1120, BIOL1141, BIOL1160, or BIOL1170, or instructor's consent, and   (3 hrs lec, 2 hrs lab, 0 hrs OJT)

BIOL2300 Student Research **1-3 credits (I)**
An opportunity for students to pursue areas of special interest by performing independent lab research projects designed and executed under the supervision of a faculty member. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: Successful completion of 8 credits of Biology, college-level math and [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING]) (0-3 hrs lec/0-6 hrs lab/0 hrs OJT)

BIOL2400 Topics in Biology **1-3 credits (Arr)**
Specific or advanced topics in biology not included in the regular curriculum. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: Depends on topic)

BIOL2999 Special Topics in Biology **1-3 credits (I)**
Study of special topics in biology. Special course topics will be announced in the class schedule.

Building Construction

BLDG1400 Construction Safety **4 credits (F)**
This course covers the safe operation of hand, portable, and stationary tools used in the industry. This course covers the basic requirements set by the OSHA legislation and provides students with basic hazard identification and abatement techniques. This course covers scaffolding and ladders used in the construction industry. The student will demonstrate proper use of various types of wooden job-built and commercial scaffolds, ladders, and safe use of these types of equipment. (Prerequisites: None) (2 hrs lec/4 hrs lab/0 hrs OJT)

BLDG1407 Concrete Forming **3 credits (F)**
This course covers forming procedures for concrete structures. Job-site built and commercial forming systems will be used. Concrete design and usage will be covered. (Prerequisites: BLDG1400 or concurrent enrollment) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG1410 Basic Framing **5 credits (F)**
This course is an introduction to wood framing for residential structures including foundations, floors, and walls. This course will also cover the various materials and fasteners used in the construction industry. This course covers all the basic information necessary to calculate and assemble a basic common and/or hip roof combination in the construction of a small building. (Prerequisites: BLDG1400 or concurrent enrollment) (1 hr lec/8 hrs lab/0 hrs OJT)

BLDG1415 Cabinets and Laminates **2 credits (F)**
This course covers the design, construction, and operation for finishing of residential cabinets. The student will become acquainted with both custom and manufactured cabinets. (Prerequisites: BLDG1400 or concurrent enrollment) (0 hrs lec/4 hrs lab/0 hrs OJT)

BLDG1420 Leadership and Trade/Labor Relations **2 credits (S)**
This course covers the fundamentals of parliamentary procedure, roles of officers, committee functions, and how to conduct an effective meeting. This course will also cover the area of labor/management relations and the career development of the student. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

BLDG1425 Estimating For Building Construction **1 credit (S)**
This class is designed for technical college students pursuing a career in building construction. This course covers how to make fast accurate estimates of construction material. The student will be introduced to the methods used to calculate material used by the carpenter or contractor. This will also cover estimating using a computer application. (Prerequisites: BLDG1435 or equivalent or concurrent enrollment and MATH1430, or equivalent) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1430 Building Site Lay-Out **1 credit (F)**
This course covers the proper use of the builder's level, transit, and other related survey instruments as it relates to the construction industry. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1435 Blueprint Reading **3 credits (S)**
This course covers the basics on interpreting and reading architectural drawing for the construction industry both in residential and commercial construction. They include but are not limited to: electrical, mechanical, painting, etc. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG1440 Stair Design and Construction **3 credits (S)**
This course covers basic stair layout and design for the beginning stair builder. The student will assemble a stairway to a deck using the training applications studied in the course. (Prerequisites: BLDG1400 or concurrent enrollment) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG1445 Framing With Metal and Welding **3 credits (S)**
This course covers framing with metal for residential and commercial construction. This course also covers arc and oxy-acetylene welding, MIG, brazing, and cutting. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG1450 Interior/Exterior Construction **3 credits (S)**
This course covers the basics in assembly of interior and exterior trim materials in residential construction. This course also covers the introduction to heat loss calculation, product selection, and safe installation of insulation and drywall products. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (0 hrs lec/6 hrs lab/0 hrs OJT)

BLDG1465 Framing With Metal 2 credits (S)
This course covers framing with metal for residential and commercial construction. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (1 hr lec/2 hrs lab/0 hrs OJT)

BLDG1500 Residential Decks 1 credit (S)
This course covers the basic: design, framing, materials, stair construction, hand rail, benches, and finishing techniques for building decks for the home. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1503 Construction Safety & Health Regulations 1 credit (Arr)
This course covers the basic requirements set by OSHA legislation and provides students with basic hazard identification and abatement techniques. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

BLDG1505 Computerized Estimating for Building Construction 1 credit (S)
This course is designed for students interested in computerized estimating. The course covers how to make fast, accurate estimates of construction jobs using a computer and estimating software. The student will be introduced to basic computer estimating used to calculate building materials and job costs. (Prerequisites: BLDG1435 or equivalent, and MATH1530) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1510 Resource-Efficient Building 1 credit (Arr)
This course covers the proper use of building construction materials containing both post-industrial recycled components. The recycling process and material within existing markets will also be covered. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1515 Metal Work 1 credit (S)
This course covers lay-out and installation of metal door frames, suspended ceilings, door hardware, garage doors, and metal fixtures. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1520 Drywall Finishing 1 credit (S)
This course covers the basic drywall taping and finishing. (Prerequisites: BLDG1400, BLDG1410, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG1525 Welding 1 credit (S)
This course covers arc and oxy-acetylene welding, MIG, brazing, and cutting. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

BLDG2412 Site Preparation and Concrete Formwork 5 credits (F)
This course covers the lay-out of the building site, excavation for the foundation, forming of the footings and foundation walls, placement of reinforcing steel, estimating and placement of the concrete, installation of foundation drainage systems, and backfilling the foundation. This course will be held at an on-site project location. (Prerequisites: BLDG1405) (1 hr lec/8 hrs lab/0 hrs OJT)

BLDG2414 Site Preparation and Foundation 4 credits (F)
This course covers the lay-out of the building site, excavation for the foundation, forming of the footings and foundation walls, placement of reinforcing steel, estimating and placement of the concrete, installation of foundation drainage systems, and backfilling the foundation. (Prerequisites: BLDG1405) (1 hr lec/6 hrs lab/0 hrs OJT)

BLDG2415 Floor and Wall Framing 3 credits (F)
This course covers residential floor and wall framing. This course will be held at an on-site project location. (Prerequisites: BLDG1410) (0 hrs lec/6 hrs lab/0 hrs OJT)

BLDG2420 Roof Framing 3 credits (F)
This course covers roof and ceiling framing using sawn lumber, manufactured framing components, and trusses. Framing components will be designed, constructed, and installed, braced, and sheathed. This course will be held at an on-site project location. (Prerequisites: BLDG1410) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG2425 Understanding Working Drawings 2 credits (F)
This course covers the estimating, scheduling, and plan review of construction drawings for construction of an actual site built project. The project drawings will be the drawings to be studied during the course and the estimating, scheduling, and plan review will use those drawings, and others supplied by the instructor. (Prerequisites: BLDG1435) (1 hr lec/2 hrs lab/0 hrs OJT)

BLDG2430 Sound and Energy Control 2 credits (F)
This course covers the heat loss in buildings, moisture problems and prevention, installation of insulation types, indoor air quality, and sound control. This course will be held at an on-site project location. (Prerequisites: BLDG1450) (1 hr lec/2 hrs lab/0 hrs OJT)

BLDG2435 Exterior Finishing 4 credits (S)
This course covers construction of exterior finishes for residential construction including siding, cornices, roofing, attic ventilation, and window and door installation. This course will be held at an on-site project location. (Prerequisites: BLDG1450) (1 hr lec/6 hrs lab/0 hrs OJT)

BLDG2440 Stair Construction 2 credits (S)
This course covers stair construction including design, lay-out and cutting stringers, and assembly of the stairway. Installation of wall and floor coverings will be presented. This course will be held at an on-site project location. (Prerequisites: BLDG1440) (1 hr lec/2 hrs lab/0 hrs OJT)

BLDG2445 Introduction to Construction Management 2 credits (S)
This course covers job coordination, scheduling, preparation and presentation of weekly progress reports, expediting of materials, insurance, and Minnesota Contractor's License requirements. Accounting requirements of construction projects will be addresses. Basic design problems will be covered. This course will be held at an on-site project location. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

BLDG2450 Interior Finishing/Casework 6 credits (S)

This course covers interior finishing systems, including drywall, installation of interior doors, window and door trim, base, hardware, suspended ceilings, closet shelving, and installation of kitchen and bathroom cabinets and counter tops for both new construction and remodeling projects. This course will be held at an on-site project location. (Prerequisites: BLDG1450) (1 hr lec/10 hrs lab/0 hrs OJT)

BLDG2455 Selection and Use of Construction Materials 3 credits (Arr)

This course covers use of materials used in the construction industry such as concrete, wood, plastics, steel, aluminum, minerals, and paper products. Material selection, alternative products, specifications, testing, and product advantages and disadvantages will be studied. Safe operation and use of power tools, scaffolds, ladders, and fall protection will be covered. Rigging and signals for cranes will be addressed. Leadership issues will be presented. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

BLDG2507 Building Construction Internship 1-4 credits (Arr)

This course provides the student with work site experience in which skills and knowledge learned in previous courses may be applied. These internship experiences include safety procedures, concrete forming, framing, exterior trim/finish, interior trim, insulating, and drywall installation. (Prerequisites: Building construction student in good standing [3.0 GPA or greater] and instructor's consent) (0 hrs lec/0 hrs lab/3-12 hrs OJT)

BLDG2999 Special Topics in Building Construction 1-3 credits (I)

Study of special topics in building construction. Special course topics will be announced in the class schedule.

Business**BUS1600 Introduction to Marketing 3 credits (F/S)**

This course is an introduction to the operation and organization of business enterprises and will provide students with a comprehensive and foundational view of business organizations, operations, finance, production, distribution, business law, and other business concepts and activities. Students will learn how these aspects of business enterprises are essential to our economic system and the global economy. Required for students enrolled in Business Administration Associate in Science degree. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

BUS1801 Discovering Computers Level 1 1 Credit

This is a beginning level course in computer literacy. Topics include basic skills and terminology needed to function in a work environment to include Windows, Internet access, and e-mail. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1802 Discovering Computers Level 2 1 Credit

This is a continuation of the beginning course in computer literacy. Topics covered include basic skills and terminology needed to function in a work environment; including word processing, spreadsheets, databases, graphics, and sound. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1811 Basic Keyboarding 1 Credit

This course covers the development of basic keyboarding techniques using the touch method on the computer. Emphasis will be on learning the touch method of typing alphabetic, punctuation, and numeric keys. In addition, skill development will be included. Basic formatting and proofreading skills will be introduced. The keyboarding goal will be the attainment of a minimum rate of 20 net words per minute with two errors or less on a two-minute timed test. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1821 Windows 98 Level 1 1 Credit

This course will introduce Windows concepts and terminology and the usage of the mouse and keyboard. Topics include opening, maximizing, minimizing, scrolling, and selecting in the windows. The course will cover disk and file management including formatting, copying, renaming, and deleting. (Prerequisites: BUS1802 or instructor consent) This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1822 Windows 98 Level 2 1 Credit

This course continues using the Windows concepts and terminology. Topics include modifying your desktop, customizing your computer, and advanced file and web searching. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1821 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1831 Windows XP Level 1 1 Credit

This course will introduce Windows concepts and terminology and the usage of the mouse and keyboard. Topics include opening, maximizing, minimizing, scrolling, and selecting in the windows. The course will cover disk and file management including formatting, copying, renaming, and deleting. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: None)

BUS1832 Windows XP Level 2 1 Credit
This course continues using the Windows concepts and terminology. Topics include modifying your desktop, customizing your computer and advanced file and web searching. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1831 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1851 Microsoft Word 2000 Level 1 1 Credit
This course provides students with the opportunity to learn MS WORD and to utilize a microcomputer as a word processor. Students will learn to create, edit, format, open, save, print, manage and enhance documents. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1852 Microsoft Word 2000 Level 2 1 Credit
This course provides students with the opportunity to learn MS Word and to utilize a microcomputer as a word processor. Students will learn to insert tables and charts, generate mailing list using mail merge and create a newsletter. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1851 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1853 Microsoft Word 2000 Level 3 1 Credit
This course provides students with the opportunity to learn MS Word and to utilize a microcomputer as a word processor. Students will learn to insert table of contents and indexes, create an online form and work with macros using Visual Basic. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1852 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1861 Microsoft Word 2002 Level 1 1 Credit
This course provides students with the opportunity to learn MS Word 2002 and to utilize a microcomputer as a word processor. Students will learn to create, edit, format, open, save, print, manage and enhance documents. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1862 Microsoft Word 2002 Level 2 1 Credit
This course provides students with the opportunity to learn MS Word and to utilize a microcomputer as a word processor. Students will learn to insert tables and charts, generate mailing list using mail merge and create a newsletter. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1861 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1863 Microsoft Word 2002 Level 3 1 Credit
This course provides students with the opportunity to learn MS Word and to utilize a microcomputer as a word processor. Students will learn to insert table of contents and indexes, create an online form and work with macros using Visual Basic. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1862 or instructor's approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1881 MS Excel 2000 Level 1 1 Credit
This course introduces the students to MS Excel 2000 software used to analyze financial data. It covers essential spreadsheet skills; planning, building, testing, and formatting financial worksheets; enhancing and printing worksheets; using, formulas, and references and graphing, and working with multiple worksheets. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1882 Excel 2000 Level 2 1 Credit
This course is a continuation of MS Excel 2000 Level 1. It covers essential financial functions, data tables, formulas, querying a worksheet database, creating templates, and working with multiple worksheets. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1881 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1883 Excel 2000 Level 3 1 Credit
This course is a continuation of MS Excel 2000 Level 2. It covers using Visual Basic for spreadsheet applications, auditing, data validation, solving complex problems and importing external data. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1882 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

Term Course Codes:
(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

BUS1891 MS Excel 2002 Level 1 1 Credit
This course introduces the students to MS Excel 2002 software used to analyze financial data. It covers essential spreadsheet skills; planning, building, testing, and formatting financial worksheets; enhancing and printing worksheets; using, formulas, and references and graphing, and working with multiple worksheets. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1892 Excel 2002 Level 2 1 Credit
This course is a continuation of MS Excel 2002 Level 1. It covers essential financial functions, data tables, formulas, querying a worksheet database, creating templates and working with multiple worksheets. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1891 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1893 Excel 2002 Level 3 1 Credit
Catalog Description: This course is a continuation of MS Excel 2002 Level 2. It covers using Visual Basic for spreadsheet applications, auditing, data validation, solving complex problems and importing external data. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1892 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1911 PowerPoint 2000 1 Credit
This course covers the creation of a presentation using PowerPoint 2000, a tool used to create multimedia presentations. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1921 PowerPoint 2002 1 Credit
This course covers the creation of a presentation using multimedia software package. This software can be used to create a professional presentation using a projection device attached to a personal computer. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1941 MS Access 2000 Level 1 1 Credit
This course introduces the student to MS Access 2000 database software used to manage data. It covers planning, creating, testing, and changing database files; adding, changing, and deleting records from a database; querying database tables. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1942 MS Access 2000 Level 2 1 Credit
This course is a continuation of MS Access 2000 Level 1 microcomputer database software. Course topics include reports, forms, combo boxes, hyperlinks, subforms, and creating an application system using macros and wizards. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1941 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1943 MS Access 2000 Level 3 1 Credit
This course is a continuation of MS Access 2000 Level 2 microcomputer database software. Topics covered include creating a report using Design View, customizing forms using Visual Basic, and administering a database system. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1942 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1951 MS Access 2002 Level 1 1 Credit
This course introduces the student to microcomputer database software used to manage data. Course topics include planning, creating, testing, and changing database files; adding, changing, and deleting records from a database; querying database tables. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1952 MS Access 2002 Level 2 1 Credit
This course is a continuation of MS Access 2002 Level 1 microcomputer database software. Course topics include reports, forms, combo boxes, hyperlinks, subforms, and creating an application system using macros and wizards. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1951 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1953 MS Access 2002 Level 3 1 Credit

This course is a continuation of MS Access 2002 Level 2 microcomputer database software. Course topics include creating a report using Design View, customizing forms using Visual Basic, and administering a database system. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1952 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1971 FrontPage 2000 1 Credit

Students learn how to create World Wide Web home pages using Microsoft FrontPage 2000. Hands-on exercises will guide students through the design and construction of a home page with links to other documents and sites. Students will also learn to use graphics and other multimedia items in their home pages. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS1981 FrontPage 2002 1 Credit

Students learn how to create World Wide Web home pages using Microsoft FrontPage 2002. Hands-on exercises will guide students through the design and construction of a home page with links to other documents and sites. Students will also learn to use graphics and other multimedia items in their home pages. This course is offered in a flex lab setting (self-paced) and is intended to be used primarily for workforce development and personal growth. This course is acceptable for a special workforce development certificate program and is not intended for other programs at Lake Superior College. (Prerequisites: BUS1811 or instructor approval) (0 hrs lec/2 hrs lab/0 hrs OJT)

BUS2500 Business Management Applications 3 credits (F/S)

This course requires students to apply knowledge, skills and strategies to multi-disciplinary business case studies, simulations and team projects. Students will apply learning from other courses taken as part of the Business Administration AS degree Curriculum. Case studies and projects will encompass management, marketing, economics, accounting, statistics and communications skills in a team environment. Required for students enrolled in Business Administration Associate in Science degree. (Prerequisites: BUS1600 and a minimum of 30 additional credits from the Business Administration AS Degree Business Core) (3 hrs lec/0 hrs lab/0 hrs OJT)

Computer Aided Design Engineering**CADE1401 Orthographic Detailing & Dimensioning 3 credits (F)**

This course covers orthographic projection and dimensioning techniques.   (1 hr lec/4 hrs lab/0 hrs OJT)

CADE1405 Introduction to CAD Engineering Technology 1 credit (F/S)

This course covers an introduction to the CAD Engineering Technician profession and acquaints students with an array of career opportunities within the field. Career possibilities will be explored through a variety of hands-on activities including a company tour and computer-aided design applications. Emphasis is on an understanding of the job market, types of employment available, the technician's role in the engineering profession, and skills needed to succeed. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

CADE1407 Engineering CAD 5 credits (F/S)

This course provides a foundation for use in the civil, architectural, and CAD engineering fields. (Prerequisites: See Advisor) (1 hr lec/8 hrs lab/0 hrs OJT)

CADE1410 Sections & Auxiliary Views 2 credits (F)

This course will focus on further orthographic delineation used by industry for complicated engineering drawings. This course will also cover plane projections obtained from planes other than the horizontal, frontal, and profile planes. (Prerequisites: CADE1401) (1 hr lec/2 hrs lab/0 hrs OJT)

CADE1420 Manufacturing Processing & Design 2 credits (F)

This course covers machine design and technical component size selection along with machine function characteristics and purposes, as they pertain to manufacturing processes used in industry and is designed to provide an understanding of manufacturing principles and practices including, the economic impact of the various processes. (Prerequisites: CADE1401) (1 hr lec/2 hrs lab/0 hrs OJT)

CADE1430 Geometric Dimensioning and Tolerancing 2 credits (F)

This course covers alternatives to Conventional Dimensioning Techniques. (Prerequisites: CADE1401) (1 hr lec/2 hrs lab/0 hrs OJT)

CADE1450 Mechanical Details 3 credits (S)

This course covers drawing applications to several kinds of assemblies. The student will also learn systems of drawing integration to product definition. (Prerequisites: CADE1401) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE1460 Sheet-Metal Development 3 credits (S)

This course covers graphical solutions to points, lines, and planes in space, along with composite development. (Prerequisites: CADE1401) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2400 Engineering CAD II 5 credits (F/S)

This course covers intermediate graphic image production through the use of computer hardware, software, and peripheral devices. (Prerequisites: CADE1407 or instructor's consent) (1 hr lec/8 hrs lab/0 hrs OJT)

CADE2407 Engineering Technology Internship **1-7 credits (Arr)**

This course provides the student with work site experience in which skills and knowledge learned in previous courses may be applied. These internship experiences include safety procedures, quality control systems, personnel procedures, company organization, contractual agreements, and other employer expectations. Technical skills and knowledge can include surveying, inspection, testing, computer design, and architectural applications. Students can register for varying credits based on their planners and number of hours of expected work. One credit is equivalent to 48 hours of work time. (Prerequisites: Instructor consent) (0 hrs lec/0 hrs lab/3-21 hrs OJT)

CADE2410 Engineering CAD III **5 credits (F/S)**

This course covers advanced topic programming, customization, 3D drawing, and menu modification. (Prerequisites: CADE2400 or instructor's consent) (1 hr lec/8 hrs lab/0 hrs OJT)

CADE2420 Electrical/Electronic Drawings **3 credits (F/S)**

This course covers basic introductions to electrical and electronics drafting fields with the incorporation of Computer Aided Design. (Prerequisites: CADE2400 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2430 Industrial Piping Layout **3 credits (F/S)**

This course covers piping drafting, design, and layout, preparing students for piping engineering fields. (Prerequisites: CADE2400 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2440 Fluid Power Design **3 credits (F/S)**

This course entails the engineering details and the description of complete hydraulic systems through the use of CAD engineering design. (Prerequisites: CADE2400 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2450 Technical Illustration 3D **3 credits (F/S)**

This course will cover the illustrative techniques used by industry to technically detail 2D and 3D graphics of engineered designs for their use in catalogs, public relations, and promotional designs. (Prerequisites: CADE2410 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2460 Jigs and Fixtures **3 credits (F/S)**

This course covers jig and fixture tool design for the Industrial Machining Occupations. (Prerequisites: CADE2410) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2470 Design Project **5 credits (F/S)**

This course covers completion of incorporating total learning experiences into workable, economical designs using engineering procedures. (Prerequisites: CADE2410) (1 hr lec/8 hrs lab/0 hrs OJT)

CADE2480 Mechanical Desktop **3 credits (F/S)**

This course covers feature based parametric design for Part Modeling with the incorporation of Computer Aided Design. (Prerequisites: CADE2410 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

CADE2700 Microstation I **6 credits (F/S)**

This course covers a broad range of knowledge of the elementary CAD concepts necessary to complete a simple design. Fundamentals are covered and practiced extensively to better prepare the student for the more advanced topics covered in Microstation II and Microstation III. (Prerequisites: CADE2410 or instructor's consent) (2 hrs lec/8 hrs lab/0 hrs OJT)

CADE2710 Microstation II **6 credits (F/S)**

This course covers a broad range of knowledge of CAD intermediate concepts necessary to complete a simple design. Fundamentals are covered and practiced extensively to better prepare the student for the more advanced topics covered in Microstation III. (Prerequisites: CADE2700 or instructor's consent) (2 hrs lec/8 hrs lab/0 hrs OJT)

CADE2720 Microstation III **6 credits (F/S)**

This course covers a broad range of knowledge for the advanced CAD concepts necessary to complete an intermediate design. Customization and productivity are covered and practiced extensively to better prepare the student for the more advanced topics covered in CAD Engineering design. (Prerequisites: CADE2710 or instructor's consent) (2 hrs lec/8 hrs lab/0 hrs OJT)

CADE2999 Special Topics in ComputerAided Design Engineering **1-3 credits (I)**

Study of special topics in computer aided design engineering. Special course topics will be announced in the class schedule.

Civil Engineering Technology

CETT1400 Introduction to Civil Engineering Technology **2 credits (F)**

This course covers an introduction to Civil Engineering Technology focusing on areas of employment, life-long learning, engineering terminology, and what it takes to succeed as a Civil Engineering Technician. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

CETT1405 Fundamentals of Surveying **3 credits (F/S)**

This course covers the basics of field surveying and includes the fundamentals of taping, leveling, site surveys, and transits/theodolites. The course also stresses the care and handling of surveying instruments and survey office procedures. (Prerequisites: MATH1531 or equivalent. Can be concurrent enrollment) (2 hrs lec/2 hrs lab/0 hrs OJT)

CETT1410 Introduction to Material Testing **3 credits (F)**

This course covers an introduction to construction materials and material testing including concrete field tests, gradations, and bituminous testing. (Prerequisites: MATH1531 or equivalent, or concurrent registration) (2 hrs lec/2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

CETT1420 Route Survey 4 credits (S)
This course covers defining, calculating, and laying out horizontal and vertical alignments for roadways. Emphasis will be placed on the student developing neatness of calculations, use of advanced survey instruments, and operation of HP48g. (Prerequisites: CETT1405 or instructor's consent) (2 hrs lec/4 hrs lab/0 hrs OJT)

CETT1430 Civil CAD Applications 4 credits (S)
This course covers advanced AutoCad software commands for use with civil survey data. In addition, students will prepare Civil Engineering drawings using these commands. (Prerequisites: CADE1407) (1 hr lec/6 hrs lab/0 hrs OJT)

CETT1440 Engineering Problem Solving 2 credits
This course is designed to give students the ability to take previously learned mathematical concepts and apply them to engineering applications. In addition, the course will cover the use of an engineering calculator and help students learn critical thinking and problem solving techniques. (Prerequisites: MATH1531 or equivalent. Can be concurrent enrollment) (1 hr lec/2 hrs lab/0 hrs OJT)

CETT2100 Introduction to GIS (Geographic Information Systems) 2 credits (F/S)
The purpose of this course is to develop a basic understanding of the underlying principles of GIS, with a hands-on introduction to the technology. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

CETT2400 Intermediate Survey 3 credits (F)
This course covers the fundamentals of surveying at an advanced level. The student will demonstrate competency in four critical areas of the Civil Engineering Technology field. (Prerequisites: CETT1405) (1 hr lec/4 hrs lab/0 hrs OJT)

CETT2407 Engineering Technology Internship 1-7 credits (Arr)
This course provides the student with work site experience in which skills and knowledge learned in previous courses may be applied. These internship experiences include safety procedures, quality control systems, personnel procedures, company organization, contractual agreements, and other employer expectations. Technical skills and knowledge can include surveying, inspection, testing, computer design, and architectural applications. The students can register for varying credits based on their planners and number of hours of expected work. One credit is equivalent to 48 hours of work time. (Prerequisites: None) (0 hrs lec/0 hrs lab/3-21 hrs OJT)

CETT2410 Stormwater Management 3 credits (F)
This course covers the fundamentals of hydraulics and hydrology as they relate to the design of roadways, subdivisions, and storm/sanitary sewer design. It covers both the theory of hydraulics along with practical applications in storm sewer, culvert, and detention pond design. (Prerequisites: MATH1532 or equivalent, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CETT2420 Land Survey Systems 3 credits (S)
This course covers an introduction to the public land system, legal descriptions of properties, basic mapping terminology, and how legal land descriptions affect property transfer. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

CETT2430 Site Development 3 credits (F)
This course covers the various aspects of a property subdivision. The city of Duluth regulations are used as a guide. The project is CAD drawn using industry standard software. (Prerequisites: CETT1430 or concurrent enrollment) (1 hr lec/4 hrs lab/0 hrs OJT)

CETT2440 Civil Estimating 3 credits (S)
This course covers the calculation of quantities from highway, bridge, building, and site plans. (Prerequisites: MATH1532 or equivalent, or concurrent enrollment) (2 hrs lec/2 hrs lab/0 hrs OJT)

CETT2450 Highway Design 4 credits (S)
This course covers the various aspects of a highway design. The use of horizontal and vertical curves, earthwork computation and balancing, and storm water drainage will be emphasized. The final project will be drawn using industry standards and AutoCad. (Prerequisites: CETT1430 or concurrent enrollment) (1 hr lec/6 hrs lab/0 hrs OJT)

CETT2460 Advanced Survey 3 credits (S)
This course covers advanced topics in surveying and is designed for the student who plans to pursue surveying as a major career goal. (Prerequisites: CETT1405) (0 hrs lec/6 hrs lab/0 hrs OJT)

CETT2999 Special Topics in Civil Engineering Technology 1-3 credits (I)
Study of special topics in civil engineering technology. Special course topics will be announced in the class schedule.

Chemistry

CHEM1110 Aspects of Chemistry I 3 credits (F/S)
An introduction to the study of chemistry and its applications requiring a minimum of mathematics. The topics of this course include an introduction to stoichiometry, nomenclature, bonding, gas laws, and acids and bases. This course is intended primarily for those with no or a limited or outdated background in chemistry. MTC goal area: (3) Natural Sciences. (Prerequisites: MATH0460 or MATH1420. A CHEM1110-CHEM1210 sequence may not be taken to meet the laboratory science requirement) (2 hrs lec/2 hrs lab/0 hrs OJT)

CHEM1111 Aspects of Chemistry II 2 credits (S)
This course is a continuation of the CHEM1110-CHEM1111 sequence. Topics covered in this course include solution chemistry, oxidation/reduction, nuclear chemistry, and topics in organic chemistry. MTC goal area: (3) Natural Sciences. (Prerequisites: CHEM1110 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

CHEM1210 General Chemistry I 5 credits (F)
This course is the first semester of a two-semester sequence and is designed for those students who are science majors. The basic fundamentals of chemistry will be covered, including modern atomic theory, the periodic table, stoichiometry, nomenclature, solutions, bonding, solution chemistry, the energy of reactions, properties of gases, and properties of solids and liquids. MTC goal area: (3) Natural Sciences. (Prerequisites: High school chemistry or CHEM1110 and high school algebra, MATH 0460 or MATH1420) (4 hrs lec/2 hrs lab/0 hrs OJT)

CHEM1211 General Chemistry II 5 credits (S)

This course is the second semester of a two-semester sequence and is designed primarily for those students who are science majors. The basic fundamentals of chemistry will be studied, including equilibrium, aqueous solutions, (acids, bases, and salts), solubility, electrochemistry, kinetics, chemistry of metals, and basic organic chemistry. MTC goal area: (3) Natural Sciences. (Prerequisites: CHEM1210 or instructor's consent) (4 hrs lec/2 hrs lab/0 hrs OJT)

CHEM1310 General Chemistry of Solutions 3 credits (F/S)

This course is designed for students enrolling in the health programs. It includes discussion of measurements, bonding, and some medical properties of atoms and ions. Also includes moles, stoichiometry, solutions, equilibrium, pH and discussion of organic chemistry and biochemistry. MTC goal area: (3) Natural Sciences. (Prerequisites: High school chemistry or CHEM1110 and high school algebra or MATH0460 or MATH1531) (2 hrs lec/2 hrs lab/0 hrs OJT)

CHEM2110 Elementary Organic Chemistry I 5 credits (F)

The first of a two-semester sequence of courses in elementary organic chemistry. The course lecture topics include the study of structures, properties, syntheses and reactions of the major classes of organic compounds. The course also includes the basic principles of chemical bonding, kinetics, mechanisms and molecular spectroscopy. The laboratory portion of the course consists of laboratory preparation and study of the chemical and physical properties of organic compounds. MTC goal area: (3) Natural Sciences. (Prerequisites: CHEM1211) (3.5 hrs lec/3 hrs lab/0 hrs OJT)

CHEM2111 Elementary Organic Chemistry II 5 credits (S)

The second of a two-semester sequence of courses in elementary organic chemistry. The course lecture topics include the study of structures, properties, syntheses, and reactions of the major classes of organic compounds. The course also includes the basic principles of chemical bonding, kinetics, mechanisms and molecular spectroscopy. The laboratory portion of the course consists of laboratory preparation and study of the chemical and physical properties of organic compounds. MTC goal area: (3) Natural Sciences. (Prerequisites: CHEM2110) (3.5 hrs lec/3 hrs lab/0 hrs OJT)

CHEM2999 Special Topics in Chemistry 1-3 credits (I)

Study of special topics in chemistry. Special course topics will be announced in the class schedule.

Computer Information Systems

CIS1400 Introduction to Computers 2 credits (F/S)

This course covers basic computer terminology and examines computer software. Topics covered include: system software and application software, input and output peripherals in microcomputers, system unit content, secondary storage for computers, and communications and networking related to micro-computers. Students will learn how a computer operates and will have the opportunity, through hands on experience, to work with computer software con-

sisting of word processing, financial spreadsheets, database management, and presentation software. (Prerequisites: Working knowledge of Windows software) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1401 Computer Literacy 3 credits (F/S)

This course traces the historical development and examines social issues of computer technology. It also discusses the capabilities, organization, and uses of the modern computer within the following topics: basic computer terminology, computer software, the system unit, secondary storage, communication and the networking related to microcomputers. Students will learn how a computer operates and will have the opportunity, through hands-on experience, to work with computer software consisting of word processing, spreadsheets, database management, and presentation software. (Prerequisites: Working knowledge of Windows software) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS1404 Introduction to Internet 1 credit (F/S)

This course is designed for the novice computer user who is interested in learning about the many resources now available on the Internet. The course provides a comprehensive overview of the World Wide Web (WWW), including the usage for research. The course provides hands-on experience using Internet browsers. (Prerequisites: Working knowledge of Windows software) (0 hrs lec/2 hrs lab/0 hrs OJT)

CIS1406 Web Programming with HTML 2 credits (F)

Learn how to create World Wide Web home pages using Hypertext Markup Language (HTML). Hands-on exercises will guide students through the design and construction of a home page with links to graphics, documents, multimedia, and forms. This course will cover the basic and advanced concepts of web site design using HTML. (Prerequisite: Proficiency in Internet) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1407 Introduction to MS FrontPage2 credits (F)

This foundation course introduces the concepts, vocabulary, and procedures associated with MS FrontPage and the internet. Topics include development of the internet and FrontPage, prospects for using FrontPage for internet and intranet applications, options available for doing business on the internet, forms related to e-commerce, tools used to build a web presence, features of web sites, and maintenance. (Prerequisites: CIS1400 or CIS1401 or instructor consent) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1408 Dynamic HTML/XML 3 credits (F)

This course will help students understand the fundamentals of dynamic HTML and XML scripting using an effective problem-solving approach. The course includes coverage of creating dynamic text and images, positioning, data binding and structuring data. (Prerequisites: CIS1406) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS1412 Web Design, Graphics, and Animation 4 credits (S)

Using current software packages, students will learn to create and manipulate web pages, digitized photographic images, graphics, and animation. Students will be exposed to the best practices in web page design, graphic design and animation being used in the web. (Prerequisites: CIS1400 or CIS1401, CIS1406) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS1415 Intro to Programming Principles 4 credits (F/S)

This course expands the student's knowledge in programming concepts. It covers essential logic skills; planning, creating, testing, and changing algorithms through lectures and hands on application. (Prerequisites: CIS1400 or CIS1401, MATH0450, Elementary Algebra CPT score above 45) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS1417 Beginning Oracle 2 credits (F)

This course will introduce students to the basic concepts of using Oracle as a database management tool. Topics include table structure and definition, relational DB structures, data modifications, beginning PL/SQL. (Prerequisites: CIS1400 or CIS1401, CIS1415) (1 hr lec/2 hrs lab/0 hr OJT)

CIS1418 Advanced Oracle 2 credits (F)

This course continues to build on the basic concepts introduced in Beginning Oracle. Topics include developing custom forms and reports, integrated applications, and web processes. (Prerequisites: CIS1417) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1419 Introduction to E-Commerce 2 credits (S)

This foundation course introduces the concepts, vocabulary, and procedures associated with e-commerce and the Internet. Topics include development of the Internet and e-commerce, prospects for business-to-business and business-to-consumer e-commerce, options available for doing business on the Internet, marketing issues related to e-commerce, tools used to build an e-commerce Web site, features of e-commerce Web sites, payment options, security issues, and customer service. (Prerequisites: CIS1400 or CIS1401 and CIS1406) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1440 Network Administration: Netware 3 credits (S)

In this course, students learn how to accomplish fundamental network management tasks on a Netware network. Topics include basic network terminology, creating user accounts, network printing, establishing security, and resource management. (Prerequisites: CIS1400 or CIS1401, CIS 1521, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS1441 Mini/Mainframe Operating Systems I 3 credits (S)

This course introduces the students to operating system utility control statements, job control, and job control statements. It also introduces command control procedures, and command creation tools. Students will be able to describe the CL and OS/400 structure. (Prerequisites: CIS1400 or CIS1401, CIS 1415 or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS1510 Microcomputer Database I 2 credits (F)

This course introduces the student to microcomputer database software used to manage data. It covers essential database skills; planning, creating, testing, and changing database files; adding, changing, importing, and deleting records from a database; querying database tables; designing, creating, and using forms and filters; creating and using macros. (Prerequisites: CIS1400 or CIS1401) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1511 Microcomputer Database II 2 credits (F)

This course expands the student's knowledge in microcomputer database software. It covers essential database skills: planning, creating, testing, and changing database files through development of a database application; enhancing query applications through using select and crosstab activities; introducing and using Bound and Unbound Forms and Form Styles, and enhancing reports using Objects and Properties. Additionally, the student will be introduced to fundamental programming activities, where developing your own logic to complete the necessary functions is essential. (Prerequisites: CIS1510 or instructor consent) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1515 Microcomputer Spreadsheets I 2 credits (F)

This course introduces the student to microcomputer spreadsheet software used to analyze financial data. It covers essential Windows skills; planning, building, testing, and formatting financial worksheets: enhancing and printing worksheets; using functions, formulas, and references: charting and graphing worksheets. (Prerequisites: CIS1400 or CIS1401 or concurrent enrollment) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1517 Microcomputer Spreadsheets II 2 credits (F)

This course covers advanced topics in spreadsheet applications, including macros, pivot tables, advanced functions, VBA, customizing a spreadsheet, and what-if analysis. (Prerequisites: CIS1515 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

CIS1521 Microcomputer Operating Systems 2 credits (F/S)

This course is designed for the novice computer user. It introduces concepts of microcomputer hardware and operating systems (OS's), implementation details of several PC OS's, including DOS (Disk Operating System), various versions of Microsoft Windows and UNIX, and essential techniques for using, installing, configuring, and maintaining various PC OS components and functions such as file systems, peripheral devices, and communications services. (Prerequisites: CIS1400 or CIS1401 or concurrent enrollment) (2 hrs lec/0 hrs lab/0 hrs OJT)

CIS 1525 Windows Software 2 credits (F/S)

Learn how Windows provides a consistent interface for all programs that are available in a windows environment. Topics include desktop management, file management, print manager, desktop accessories, graphics, text editing, memory management, auto start-up, and networking considerations. (Prerequisites: CIS1400 or CIS1401) (1 hr lec/2 hrs lab/0 hrs OJT)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

CIS1560 Web ServerApplication 3 credits (S)

The student will receive instruction on basic server setup and the issues involved in web server administration. The web servers covered in this class will be the Apache web server and Microsoft Internet Information Server. (Prerequisites: CIS1525) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS1621 Introduction to C++ Programming Language 4 credits (F/S)

This course teaches the introductory concepts and tools associated with the C++ programming language. Many familiar applications are written using the C++ language. Examples include Windows applications and compilers and tools for both mini and mainframe computers. (Prerequisites: CIS1415 or instructor consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS1640 Beginning COBOL 4 credits (S)

This course introduces COBOL programming language for use on mainframe and minicomputer systems. Topics include structured program design, arithmetic operations, control logic, report generation, string processing, editing, table processing, and advanced editing and report writing. (Prerequisites: CIS1415, or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS1650 Intro to Visual Basic 4 credits (F)

This course teaches the use of Visual Basic programming language to solve problems on a computer. Topics covered will include VB objects, I/O and built in functions, loop structures, decision structures and array manipulation. (Prerequisites: CIS1415, or instructor's consent) (3 hrs lec/2 hrs lab/ 0 hrs OJT)

CIS2510 Help Desk Methods 2 credits (S)

This is the first course of a two-course set. This course is designed to put the students knowledge of microcomputers into practice using problem simulations. It includes: the role of the Help Desk, the components of a successful Help Desk, responsibilities associated with each call for HELP, skills required to be a successful Help Desk service provider. (Prerequisites: All the hardware and software courses assigned the first two semesters) (2 hrs lec/0 hrs lab/0 hrs OJT)

CIS2515 Help Desk Lab 2 credits (S)

This course is the second of a two-course sequence designed to provide students with real-world microcomputer problems. Students will answer HELP calls, document caller's request, analyze problems, fix the problems, and/or find the appropriate resources to satisfy caller's request. (Prerequisites: CIS2510) (0 hrs lec/4 hrs lab/0 hrs OJT)

CIS2530 Web Application Development 3 credits (S)

This foundation course introduces the concepts, vocabulary, and procedures associated with the use of web site building and integration software. We will use commercial site building software to implement and maintain sites developed for the course. (Prerequisites: CIS1412) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2621 Advanced C++ Programming Language 4 credits (S)

This course builds on the introductory concepts used in Introduction to C++ Language. Students will work with advanced concepts using functions, classes and objects, array manipulation, and file access methods. (Prerequisites: CIS1621) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS2635 Internet Programming Language 4 Credits (F/S)

This course teaches the use of programming languages used on the Internet to solve problems with a computer. Exposure to HTML, JAVA, PERL and CGI programming will be emphasized. (Prerequisites: CIS1621 or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS2636 JavaScript Programming 3 credits (S)

This course teaches students to make Web pages interactive using the JavaScript programming language. Students will add JavaScript code to HTML documents to add effects to pages. JavaScript syntax, the JavaScript object model, and object oriented principles are covered in this course. (Prerequisites: CIS2635 or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2637 CGI Programming 1 credit (S)

This course teaches the use of Common Gateway Interface (CGI) to connect web pages to databases and other programs on the server. Students will learn to write CGI scripts that process forms sent from Web pages. Exposure to HTTP, Server side and Client side CGI Scripts will be introduced. (Prerequisites: CIS2636 or instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

CIS2641 Advanced COBOL 4 credits (S)

This course concludes the course sequence in COBOL. Topics include sequential file processing, the COBOL sort techniques, data editing techniques, updating sequential disk files, updating indexed and relative disk files, interactive displays, interactive menus, display files, display color, and line graphics. (Prerequisites: CIS1640) (3 hrs lec/2hrs lab/0 hrs OJT)

CIS2651 Advanced Visual Basic 4 credits (F)

This course concludes the course sequence in Visual Basic. Topics include using objects with SQL, common and custom controls, multi-document applications, programming with class modules, and program distribution. (Prerequisites: CIS1650) (3 hrs lec/2hrs lab/0 hrs OJT)

CIS2730 Database Management 4 credits (S)

Students will learn about database management terms, definitions and tools. They will also learn to use logical modeling techniques to create a database from the ground up. (Prerequisites: CIS1415) (3 hrs lec/2hrs lab/ 0 hrs OJT)

CIS2740 Systems Analysis and Design 4 credits (S)

This course provides a survey of procedures followed in the development of business computer information systems. Topics include structured approaches to needs assessment, specifications, and implementation of new systems. A project will be required in this class. (Prerequisites: Two 2600 level courses in programming language.) (3 hrs lec/2 hrs lab/0 hrs OJT)

CIS2742 Applications Programming 2 credits (S)

Students will develop application programs from scenarios presented by the instructor or gathered by the student. The applications will be either written in a mainframe, web based, or PC based language, or a combination thereof. (Prerequisites: two 2600 level courses in programming language) (1 hr lec/2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

CIS2745 Network Administration: UNIX
3 credits (F/S)

An introduction to the increasingly popular UNIX operating system using free Linux. Students will understand the architecture of UNIX (file system, processes and device management), learn how to use common UNIX application and utility programs, program in scripting languages, and learn basic UNIX systems and network administration methods and techniques. (Prerequisites: CIS1521) (2 hrs lec/2hrs lab/ 0 hrs OJT)

CIS2845 Network Administration: Advanced UNIX
3 credits (F)

Topics will include advanced UNIX server administration skills: system installation and configuration; user services and process management; web and ftp server administration; network printing, and file server administration, and managing gateway services and security. (Prerequisites: CIS2745) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2946 CISCO Networking I **3 credits (F)**

This course is the first in a series of four courses that deal with the CISCO core content. This course prepares the student to take the CCNA or CISCO Certified Networking Associate exam. (Prerequisites: CIS1400 or CIS1401) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2947 CISCO Networking II **3 credits (F)**

This course is the second in a series of four courses that deal with the CISCO core content. This course prepares the student to take the CCNA or CISCO Certified Networking Associate exam. (Prerequisites: CIS2946) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2948 CISCO Networking III **3 credits (S)**

This course is the third in a series of four courses that deal with the CISCO core content. This course prepares the student to take the CCNA or CISCO Certified Networking Associate exam. (Prerequisites: CIS2947) (2 hrs lec/2 hrs lab/ 0 hrs OJT)

CIS2949 CISCO Networking IV **3 credits (S)**

This course is the fourth in a series of four courses that deal with the CISCO core content. This course prepares the student to take the CCNA or CISCO Certified Networking Associate exam. (Prerequisites: CIS2948) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2950 Network Administration: Windows Client
3 credits (S)

This course is intended to help students learn how to set up and support the latest Microsoft Windows 2000 client operating system and prepare for the associated Microsoft Certified Professional examination. (Prerequisites: CIS1521, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2952 Network Administration: Windows Server
4 credits (F)

This course is designed to help students learn how to set up and support the latest Microsoft Windows Server operating system and prepare for the associated Microsoft Certified Professional examination. (Prerequisites: CIS 2950 or instructor's consent) (2 hrs lec/4 hrs lab/0 hrs OJT)

CIS2953 Network Administration: Windows
Network Management **(F)**

This course provides students with training to administer, support, and troubleshoot information systems that incorporate Microsoft Windows, and prepare for the associated MCSA exam. (Prerequisites: CIS2952) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2954 Network Administration: Windows
Network Infrastructure **3 credits (I)**

This course is intended for new-to-product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows Server Products. This course will help prepare students for the associated Microsoft certification exam. (Prerequisites: CIS2950, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS 2962 Network Administration: Microsoft
Exchange Server **3 credits (I)**

This course provides students with the knowledge and skills necessary to plan and implement Microsoft Exchange Server. This course will help prepare students for the associated Microsoft certification exam. (Prerequisites: CIS2956, or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

CIS2963 Network Administration: Microsoft
Proxy Server **3 credits (I)**

This course provides students with the knowledge and skills necessary to plan and implement Microsoft Proxy Server. This course will help prepare students for the associated Microsoft certification exam. (Prerequisites: CIS2954) (2 hrs lec/2 hrs lab/2 hrs OJT)

CIS2980 Internship **1-4 credits (F/S)**

Internships vary from one to four credits per semester. The internship experience is very important to the student in order to gain working knowledge of the career they intend to pursue. One credit is equal to 48 hours of working experience. (Prerequisites: Permission of the department and required second-year courses.) (0 hrs lec/0 hrs lab/1-4 hrs OJT)

CIS2985 Information Technology Practicum
1-16 Credits (F/S)

This course deals with supervised practical application of theories and skills in the field of Information Technology. A signed contract outlining goals and expectation, methods of supervision, and evaluation standards will be drawn for each student. The practicum may be taken for variable credits, ranging from one to sixteen credits per semester. (Prerequisites: All students must have a signed contract on file for this course) (0 hrs lec/2-32 hrs lab/0 hrs OJT)

CIS2999 Special Topics in Computer Science
1-3 credits (I)

Study of special topics in computer science. Special course topics will be announced in the class schedule.

Communication

COMM1100 Fundamentals of Human Communication **3 credits (F/S)**

This course is designed to provide students with a body of concepts and principles for examining and understanding their communicative experiences, to influence their values and attitudes toward cooperative human relationships. Students will develop specific skills as speakers and listeners in interpersonal, small group, and public speaking settings. MTC goal areas: (1) Communication and (2) Critical Thinking. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1105 Interpersonal Communication **3 credits (F/S)**

This course is designed to help students understand the process of human communication, to help them assess their strengths and weaknesses as communicators, and to assist them in solving problems of an interpersonal nature, and develop interaction skills for interpersonal settings. MTC goal areas: (1) Communication and (2) Critical Thinking. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1110 Methods of Public Speaking **3 credits (F/S)**

This course helps students to become familiar with a variety of techniques to help them develop skills in research, organization, and presentation of informative and persuasive speeches. Students should expect to reduce speech apprehension and develop self-confidence in their ability to communicate in public. MTC goal areas: (1) Communication and (2) Critical Thinking. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1115 Intercultural Communication **3 credits (F/S)**

This course allows the student an opportunity to study the process of communicating across cultures. Major ethnic cultures, as well as significant co-cultures, will become the focus of study. The course will provide experiential as well as cognitive learning. MTC goal areas: (1) Communication, (2) Critical Thinking, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1120 Media, Persuasion, and Society **3 credits (F/S)**

This course analyzes the various media of mass communication and the manipulative influence of this media on American society. Examples drawn from campaigns, commercial advertising, and editorials. Also included will be an introduction to the history and development of mass communication systems such as, magazines, newspapers, books, recorded music, television, radio and movies. MTC goal areas: (2) Critical Thinking, (5) History, and (8) Global Perspective. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1125 Small Group Communication 3 credit (S)

The theory and applications of small group communication principles will be studied, practiced, and analyzed through self-directed work group projects. Group projects may be simulations or issues gained from within the college, business, or residential community. The goal is to improve individual and group interaction and to analyze the developments evident in this process. MTC goal areas: (5)

Social/Behavioral Science, (7) Human Diversity)
(Prerequisites:  , COMM/SPCH1105 or COMM/SPCH1100) (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1600 Human Relations in Organizations **3 credits (F/S)**

An application course in human relations that concentrates on self-awareness, personal interactions, and relationships in careers or classrooms. Focus will be placed upon understanding personal behavior and communication in a variety of settings, (e.g. classrooms, careers). Understanding diversity among cultures, team building, ethics, group dynamics and personal responsibility will also be examined. Job-seeking, resumes, and interviewing will also be covered. MTC goal areas: (2) Critical Thinking, (5) History/Social and Behavioral Sciences, and (7) Human Diversity) (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

COMM1601 Human Relations - The Individual in Career or Classroom 1 Credit (F/S)

An applications course in human relations and the job seeking process. Students will explore self-confidence and self-motivation, understanding employer and school expectations, identify personal and job-related skills. Job-seeking, resume-writing and interview sill-building will be covered. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

COMM1602 Human Relations - Team-building in Career or Classroom 1 Credit (F/S)

An applications course in human relations that concentrates on self-awareness, personal interactions, and relationships in careers or classrooms. Focus will be placed upon understanding personal behavior and communication in a variety of settings, (e.g. classrooms, careers). (Prerequisites:   (1 hrs lec/0 hrs lab/0 hrs OJT)

COMM1603 Human Relations - Exploring Diversity in Career or Classroom 1 Credit (F/S)

An applications course in human relations that concentrates on self-awareness, personal interactions, and the changing nature of organizations and classrooms in light of global diversity. Understanding diversity among cultures, team building, ethics, group dynamics and personal responsibility will also be examined. (Prerequisites:   (1 hrs lec/0 hrs lab/0 hrs OJT)

COMM2999 Special Topics in Communication **1-3 credits (I)**

Study of special topics in communication. Special course topics will be announced in the class schedule.

Dental Hygiene

DENH1401 Dental Anatomy 2 credits (F)

This lecture and laboratory course is designed to familiarize the dental hygiene student with the development, anatomical components, functions, and supporting structures of the teeth. Soft tissue landmarks of the oral cavity, dental terminology and occlusion are included. Personal property fee required. (Prerequisites: All general education pre-technical requirements completed with a "C" or better and an overall G.P.A. of 2.4 or better and admission to the dental hygiene program) (1.5 hr lec/1 hr lab/0 hrs OJT)

DENH1405 Developmental Head and Neck Anatomy 2 credits (F)

This course studies the anatomy of the head and neck with particular emphasis on the histology and development of the masticatory system. (Prerequisites: All general education pre-technical requirements completed with a "C" or better, and an overall G.P.A. of 2.4 or better, admission to the dental hygiene program) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH1420 Dental Hygiene Theory and Practice I 5 credits (F)

This course covers introduction to dental hygiene with emphasis on the theory and practice of preventive dentistry, the use of preventive dental aids, basic clinical theory and function and entry-level instrumentation. Personal property fee required. (Prerequisites: All general education pre-technical requirements completed with a "C" or better, and an overall G.P.A. of 2.4 or better, admission to the dental hygiene program) (2 hrs lec/6 hrs lab/0 hrs OJT)

DENH1505 General and Oral Pathology 2 credits (S)

This course covers the study of general disease processes. Special emphasis is placed on the study of the immune system and on the clinical and radiographic recognition of pathology of the oral cavity. (Prerequisites: Completion of all previous semester courses) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH1511 Dental Materials 4 credits (S)

This course introduces students to preventive, diagnostic and restorative materials used in modern dentistry, including: chemical/physical composition, properties, appropriate uses, safe handling, and proper manipulation of materials. Students participate through hands-on learning projects. Personal property fee required. (Prerequisites: Completion of all previous semester courses) (2 hrs lec/4 hrs lab/0 hrs OJT)

DENH1520 Dental Hygiene Theory II 2 credits (S)

This course is designed to continue the student's education in basic dental hygiene instrumentation and theory with an emphasis on dental health education, primary preventive measures, medical/dental emergencies, and treatment of medically compromised patients. This course will introduce the student to the procedures necessary for comprehensive patient treatment. (Prerequisites: Completion of all previous semester courses and concurrent registration with DENH1528) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH1528 Dental Hygiene Practice II 4 credits (S)

This course is a supervised laboratory/clinical experience that provides the students with the opportunity to practice clinical procedures toward comprehensive patient treatment to include: evaluation of medical/dental histories, clinical charting procedures, dental hygiene instrumentation, fluoride therapy, radiographic survey as prescribed and expanded functions. Personal property fee required. (Prerequisites: Completion of all previous semester courses and concurrent registration with DENH1520) (0 hrs lec/8 hrs lab/0 hrs OJT)

DENH1530 Dental Radiology 3 credits (S)

This course is designed to prepare the dental hygiene student in the art and science of producing intraoral radiographic surveys under simulated and actual clinical conditions. Course content includes theoretical concepts of the

characteristics of radiation, effects of radiation exposure, dental radiographic anatomy, radiation protection, film processing, risk management and quality assurance programs. (Prerequisites: Completion of all previous semester courses) (2 hrs lec/2 hrs lab/0 hrs OJT)

DENH1560 Periodontology I 1 credit (S)

This course covers discussion of the histology, pathogenesis, diagnosis, epidemiology and treatment of periodontal disease. Emphasis includes the progression of periodontal disease, diagnostic methods, treatment modalities, and the role of the dental hygienist in the prevention and treatment of periodontal disease. (Prerequisites: Completion of all previous semester courses) (1 hr lec/0 hrs lab/0 hrs OJT)

DENH2401 Pharmacology for the Dental Hygienist 2 credits (F)

This course covers a survey of drug groups with special emphasis on drugs used in dentistry. Course content will include the following: physical and chemical properties of the drugs, routes of administration, therapeutic and adverse effects, drug interactions, dental local anesthesia and nitrous oxide sedation. Identifying and managing clinical emergencies related to pharmacological agents and dental local anesthesia is also included. (Prerequisites: Completion of all previous semester courses) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH2420 Dental Hygiene Theory III 2 credits (F)

This course is designed to be a continuation of Dental Hygiene Theory II (DENH1520) with emphasis on advanced dental hygiene skills and patient relations. The curriculum is planned to provide students with knowledge about chemotherapeutic agents, various indices, nutritional counseling, advanced ultrasonic instrumentation techniques, margination, and management of patients with special needs. (Prerequisites: Completion of all previous semester courses and must be taken concurrently with DENH2428) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH2428 Dental Hygiene Practice III 6 credits (F)

This course is a continuation of Dental Hygiene Practice II (DENH1528) with supervised clinical experiences which includes an introduction to periodontal therapy and expanded functions. Radiographic interpretation is incorporated into the clinical experiences. Personal property fee required. (Prerequisites: Completion of all previous semester courses and concurrent registration with DENH2420) (0 hrs lec/12 hrs lab/0 hrs OJT)

DENH2431 Radiographic Interpretation 2 credits (F)

This course is an advanced study of the principles of radiographic interpretation which recognizes the limitations and benefits of dental radiography in evaluating periodontal disease, dental caries, developmental abnormalities and pathological conditions. Course content also includes: extraoral radiography, localization techniques, and identification of dental materials and foreign objects. (Prerequisites: Completion of all previous semester courses) (1 hrs lec/2 hrs lab/0 hrs OJT)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

DENH2460 Periodontology II 2 credits (F)
Through lecture series and a field experience, this course is designed to expand the knowledge of the dental hygiene student in the field of periodontology. The curriculum is planned to provide students with knowledge about systemic complications, periodontal emergencies, nonsurgical and surgical periodontal techniques, supportive periodontal therapy and various chemotherapeutic agents utilized in periodontal treatment. Legal and ethical aspects of the dental hygienist's role in periodontal therapy will also be covered. (Prerequisites: Completion of all previous semester courses) (2 hrs lec/0 hrs lab/0 hrs OJT)

DENH2501 Pain Management 1 credit (S)
This course is designed to prepare students with the skills needed to develop competencies in the safe and effective administration of pain control techniques used in dentistry. (Prerequisites: Completion of all previous semester courses) (.5 hr lec/1 hr lab/0 hrs OJT)

DENH2503 Dental Hygiene Seminar 1 credit (S)
This course covers the development and presentation of a case study; completion of a Dental Hygiene Program Portfolio; ethical, legal and regulatory concepts to the provision and/or support of oral health care services; career placement; and preparation for national, regional and state boards. (Prerequisites: completion of all previous semester courses) (1 hr lec/0 hrs lab/0 hrs OJT)

DENH2520 Dental Hygiene Theory IV 1 credit (S)
This course is designed to be a continuation of Dental Hygiene Theory III (DENH 2420) with emphasis on advanced dental hygiene skills and patient relations. The curriculum is planned to provide students with knowledge about treatment modalities, practice management, management of patients with special needs, professionalism, product evaluation, jurisprudence, and new technologies in dentistry. (Prerequisites: Completion of all previous semester courses and must be taken concurrently with DENH2528) (1 hr lec/0 hrs lab/0 hrs OJT)

DENH2528 Practice IV 6 credits (S)
This course is a continuation of Dental Hygiene Practice III (DENH2428) with supervised clinical experiences. Advanced enhancement of radiographic skills and interpretation, periodontal therapy and expanded functions are included. Personal property fee required. (Prerequisites: Completion of all previous semester courses and concurrent registration with DENH2520) (0 hrs lec/12 hrs lab/0 hrs OJT)

DENH2550 Community Dental Health 2 credits (S)
This course introduces students to the disciplines and principles of dental public health, epidemiologic methods, and biostatistical measurement and analysis. Review of preventive dentistry, dental health education, and program development are included. Field experiences provide the students an opportunity to conduct dental health programs in the community. (Prerequisites: Completion of all previous semester courses) (1.5 hrs lec/1 hrs lab/0 hrs OJT)

DENH2590 Dental Hygiene National Board Review 1 credit (S)
This elective lecture course is a prepared review by the instructor on the assigned topic intended to be a supplement to the student's preparation to taking the Dental Hygiene National Boards. (Prerequisites: Completion of all previous semester courses) (1 hr lec/0 hrs lab/0 hrs OJT)

DENH2600 Clinical Remediation 1 credit (Arr)
This course focuses on areas of clinical deficiencies and utilizes supervised clinical practice to develop competence. (Prerequisites: Recommendation and instructor's consent. Must be a student in the Lake Superior College Dental Hygiene Program or a recent graduate [within one year]) (0 hrs lec/2 hrs lab/0 hrs OJT)

DENH2999 Special Topics in Dental Hygiene 1-3 credits (I)
Study of special topics in dental hygiene. Special course topics will be announced in the class schedule.

Economics

ECON1100 Introduction to Economics 3 credits (F/S)
This course covers a general description of the United States economy. Provides an overview of basic micro- and macroeconomic concepts, focusing on major economic issues and problems of the day. MTC goal areas: (5) History and the Social and Behavioral Sciences and (8) Global Perspective. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING]) (3 hrs lec/0 hrs lab/0 hrs OJT)

ECON1150 Principles of Economics: Macroeconomics 3 credits (F/S)
A study of the macroeconomy-inflation, unemployment, economic growth, productivity, and international trade. A study of money and the banking sector. MTC goal areas: (5) History and the Social and Behavioral Sciences and (8) Global Perspectives. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

ECON1160 Principles of Economics: Microeconomics 3 credits (F/S)
This course studies the individual units of our economic system, including: demand and supply, utility, production and cost, and other applications of microeconomics. MTC goal area: (5) History and the Social and Behavioral Sciences. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

ECON2020 Statistics for Business and Economics I 3 credits (F)
Statistical analysis of business and economic data emphasizing problem solving and computer-based methods. Topics covered include: descriptive statistics, probability, probability distributions, sampling, estimation, hypothesis testing, and index numbers. (Prerequisite: MATH0470) (3 hrs lec/0 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

ECON2022 Statistics for Business and Economics II 3 credits (S)

Statistical analysis of business and economic data emphasizing problem solving and computer-based methods. Topics covered include: survey and experimental design, analysis of variance, regression and correlation, qualitative data analysis, and time series analysis. (Prerequisite: ECON2020)

ECON2999 Special Topics in Economics 1-3 credits (I)
Study of special topics in economics. Special course topics will be announced in the class schedule.

Commercial and Residential Wiring

ELEC2401 Residential Wiring 3 credits (F)

This course covers the requirements for electrical branch and general circuits in residences. Topics include the calculation of various electrical cables, special and general outlets, calculations for service-entrance equipment, ground-fault circuit interrupters, safe work practices, estimating, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2402 Residential Wiring Lab 2 credits (F)

This course covers the practical applications of the requirements for electrical branch and general circuits in residences. Topics include the techniques for installation of electrical cables, special and general outlets, calculations for service-entrance equipment, ground-fault circuit interrupters, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELEC2421 Commercial Wiring I 3 credits (F)

This course covers the theoretical applications of transformers, raceways, conduits, junction boxes, elevators, service entrances, subpanels and various types of lighting found in commercial businesses. (Prerequisites: Completion of the first year courses or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2422 Commercial Wiring I Lab 2 credits (F)

This course covers the installation of transformers, raceways, conduits, junction boxes, elevators, service entrances, subpanels and various types of lighting found in commercial properties. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELEC2431 Motor Control 2 credits (F)

This course covers the theoretical and application of controls for electrical systems. Topics will include the control of various types of lighting, motors, and other electrical equipment, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2432 Motor Control Lab 1 credit (F)

This course covers the theoretical and application of controls for electrical systems. Topics will include the control of various type of lighting, motors, and other electrical equipment, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

ELEC2440 National Electrical Code I 2 credits (F)

This course covers the history and application of the National Electrical Code towards residential and commercial properties and business. It is designed to support the third semester curriculum of the Commercial and Residential Wiring program. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2451 Commercial Wiring II 2 credits (S)

This course continues on from the Commercial Wiring I course in the third semester. Topics included are theoretical aspects for lighting, motors, and other electrical equipment. Also covered are safe work practices and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2452 Commercial Wiring II Lab 2 credits (S)

This course continues on from the Commercial Wiring I course in the third semester. Topics included are installation practices for lighting, motors, and other electrical equipment. Also covered are safe work practices and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELEC2461 Electrical Troubleshooting 2 credits (S)

This course covers the practical approach to troubleshooting electrical systems. Topics will include the common problems with various types of lighting, motors, controls, and other electrical equipment, safe work practices and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2471 Industrial Wiring 2 credits (S)

This course covers the theoretical application of industrial wiring methods and materials for electrical systems. Topics will include hazardous locations, lighting, motor selections, other electrical equipment pertaining to industrial settings, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2472 Industrial Wiring Lab 2 credits (S)

This course covers the theoretical and practical application of industrial wiring methods and materials for electrical systems. Topics will include hazardous locations, lighting, motor selections, other electrical equipment pertaining to industrial settings, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELEC2490 Electrical Internship 1-4 credits (F/S)

This course provides the student with work site experience where skills and knowledge learned in previous courses may be applied. The internship experience includes safety procedures, quality control systems, personnel procedures, company organization, contractual agreements, and other employer expectations. The students can register for varying credits based on their planner and the number of hours of work available from the employer. One credits is equivalent to 48 hours of work time. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/3-12 hrs OJT)

ELEC2501 Electric Controls 2 credits (S)

This course covers the theoretical application of controls for electrical systems. Topics will include the control of various types of lighting, motors, and other electrical equipment, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2502 Electric Controls Lab 1 credit (S)

This course covers the theoretical application of controls for electrical systems. Topics will include the control of various types of electrical equipment, lighting, commercial and industrial processes, safe work practices, and blueprint reading. (Prerequisites: Completion of the first year courses or instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

ELEC2510 National Electrical Code II 2 credits (S)

This course covers the history and application of the National Electrical Code towards commercial and industrial properties and business. It is designed to support the fourth semester curriculum of the Commercial and Residential Wiring program. (Prerequisites: Completion of the first year courses or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELEC2511 Introduction to the National Electrical Code 1 credit (Arr)

This course covers the history and application of the National Electrical Code towards residential, commercial and industrial properties, and business. It is designed to give working knowledge of the National Electrical Code to students with little background in the electrical field. (Prerequisites: Instructor's consent) (1 hr lec/0 hrs lab/0 hrs OJT)

ELEC2520 Blueprint Reading for Electricians 1 credit

This course covers the construction and design of residential, commercial, and industrial buildings. Topics include different types of plans, symbols, specifications, and the requirements for installing electrical cables, special, and general outlets, based on the National Electrical Code. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ELEC2999 Special Topics in Commercial and Residential Wiring 1-3 credits (I)

Study of special topics in commercial and residential wiring. Special course topics will be announced in the class schedule.

Electronic Engineering Technology**ELTN1400 Basic Electricity Theory 4 credits (F/S)**

This course covers essential entry-level topics in DC and AC circuits, electronic devices, and associated applications of algebra and trigonometry. (Prerequisites: MATH1531 or equivalent) (4 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1405 Basic Electricity Lab 2 credits (F/S)

In conjunction with Basic Electricity Theory, the objective of this course is to learn how to use electronic test equipment to test components and measure circuit values to determine performance. In doing so, the student will verify the laws and theorems presented in the lectures. (Prerequisites: MATH1531 or equivalent) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELTN1410 Digital Basics 3 credits (F/S)

Basic logic gates and timing are studied along with advanced Boolean and Karnaugh mapping techniques. Digital circuits such as counters, shift registers, oscillators, decoders, memory types, and troubleshooting prepare the person for microprocessor courses and/or troubleshooting and repair of PC's and networking hardware. (Prerequisites: Current enrollment in ELTN1400 and ELTN1405) (3 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1411 Introduction to Digital Electronics 1 credit (F)

Digital Basics is a single unit course covering basic digital gates and TTL logic. Lab experiments show the student the physical characteristics and operation of basic gates in the performance of basic circuits. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ELTN1415 Digital Lab 2 credits (F/S)

Lab exercises are performed using TTL, CMOS, and MSI integrated circuits to support critical thinking, math, reading for understanding, and the use of computers to prepare the student for microprocessor courses and/or troubleshooting and repair of PC's and networking hardware. (Prerequisites: Current enrollment in ELTN1400, ELTN1405, and ELTN1410) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELTN1420 Soldering and Surface Mount Lab 1 credit (F)

This course covers soldering, desoldering, repair of printed circuit boards with discreet and surface mount components, and electrostatic precautions. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

ELTN1430 Solid-State Theory 5 credits (S)

This course covers the basic topics of solid-state devices used in power supplies, amplifiers, switching circuits, and integrated-circuit timers including their purposes and characteristics. (Prerequisites: ELTN1400 and ELTN1405) (5 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1431 Introduction to Solid-State 2 credits (S)

This course covers the essential topics on solid-state devices used in power supplies bipolar transistor amplifiers, and solid-state switching circuits. (Prerequisites: ELTN1400 and ELTN1405) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1435 Solid-State Lab 4 credits (S)

This course covers the essential basic topics on solid-state devices, applications in amplifiers, power supplies, solid-state switching circuits, and integrated-circuit timers. This involves predicting circuit values and verifying those values using various measurements. (Prerequisites: ELTN1400 and ELTN1405 or instructor's consent) (0 hrs lec/8 hrs lab/0 hrs OJT)

ELTN1436 Introduction to Solid-State Lab 1 credit (S)

This course employs the use of experiments to verify the principles and information presented in the lecture portion, ELTN1431, which should be taken concurrently. (Prerequisites: ELTN1400 and ELTN1405) (0 hrs lec/2 hrs lab/0 hrs OJT)

ELTN1440 AC/DC Rotating Equipment 5 credits (S)
This course covers single phase motors and basic control, DC motors and generators and basic control, and three phase motors and systems which include alternators transformers and loads. (Prerequisites: ELTN1400 and ELTN1405) (5 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1445 AC/DC Rotating Equipment Lab 5 credits (S)
This course covers single phase motors and basic control, DC motors and generators and basic control, and three phase motors and systems which include alternators transformers and loads. (Prerequisites: ELTN1400 and ELTN1405) (0 hrs lec/10 hrs lab/0 hrs OJT)

ELTN1450 Microcontroller Theory 4 credits (S)
Microcontroller Theory covers the practical aspects of how a microcontroller, specifically a Microchip PIC, can be programmed and used as an embedded control device. In doing so the student learns the basic internal architecture of a PIC microcontroller, as well as a PIC's instruction set and how to interface it with various external input and output devices. The student will also learn to use Microchip MPLab software development tools to write assembly language code, assemble it, and download it into onchip memory, enabling the microcontroller to function independently as an embedded controller. (Prerequisites: ELTN1400, ELTN1405, and concurrent enrollment in ELTN1430, ELTN1435) (4 hrs lec/0 hrs lab/0 hrs OJT)

ELTN1455 Microcontroller Lab 2 credits (S)
Lab exercises are performed on a student development system. Software is written and assembled using the MPLab development tools and downloaded into a PIC Microcontroller by way of a PIC Start Plus programming module. Interfacing is performed using a protoboard, a PIC Microcontroller, and various peripheral devices. (Prerequisites: ELTN1400, ELTN1405, and concurrent enrollment in ELTN1430, ELTN1435) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELTN1460 Programmable Controllers 2 credits (F/S)
This course covers the fundamentals, programming, and troubleshooting of Programmable Controllers. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

ELTN1470 Systematic Troubleshooting 1 credit (F)
This course provides the student with a systematic, rational approach to analyze problems and avoid future problems. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

ELTN2400 CET Exam Preparation 1 credits (S)
This course prepares the student for the Certified Electronic Technician examination. This nationally recognized certification exam covers a wide range of electronic theory and applications. (Prerequisites: ELTN1400, ELTN1410, ELTN1430, or instructor's consent) (1 hr lec/0 hrs lab/0 hrs OJT)

ELTN2401 FCC Exam Preparation 1 credit (S)
This course prepares the student for the Federal Communications Commission (FCC) General Radiotelephone Operators License examination. (Prerequisites: Concurrent enrollment in ELTN2480) (1 hr lec/0 hrs lab/0 hrs OJT)

ELTN2410 Media and Cabling Theory 1 credit (F)
Media and Cabling offers the student wiring strategies using copper wire and fiber optic cable. Category 5 copper will be implemented using the TIA 568A code. Fiber optic cabling will be learned along with splicing techniques as specified by 3M and AMP. Cable testing will be learned using a Fluke cable tester, following current industry standards. (Prerequisites: Concurrent enrollment in the Network Specialist, Digital Communication, or Commercial and Residential Wiring programs) (1 hr lec/0 hrs lab/0 hrs OJT)

ELTN2415 Media and Cabling Lab 2 credits (F)
Media and Cabling lab allows the student to perform wiring strategies using copper wire and fiber optic cable. Category 5 copper will be implemented using the TIA 568A code. Fiber optic cabling will be done as specified by 3M and AMP. Cable testing will be done, to code, using a Fluke cable tester and following current industry standards. (Prerequisites: Concurrent enrollment in the Network Specialist, Digital Communication, or Commercial and Residential Wiring programs) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELTN2420 Robotics 2 credits (Arr)
This course covers the basics of robotics and how robots are interfaced with microprocessor controllers and sensors. (Prerequisites: ELTN1410) (1 hr lec/2 hrs lab/0 hrs OJT)

ELTN2430 Introduction to Instrumentation 2 credits (Arr)
This course covers instrumentation concepts including theory of instrumentation loops, common symbols, acronyms, input/output devices, controllers, and troubleshooting. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELTN2440 Motor Speed Controllers 2 credits (Arr)
This course covers the basic methods of DC, AC, magnetic, and mechanical speed control. Installation and testing methods will be practiced. (Prerequisites: Instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

ELTN2450 Programmable Control Applications 2 credits (Arr)
This course covers the theory of operation, installation, programming, application, and troubleshooting of programmable logic controllers. (Prerequisites: ELTN1460) (1 hr lec/2 hrs lab/0 hrs OJT)

ELTN2465 A+ PC Service & Support 3 credits (F/S)
The course is designed to train students in the science of servicing computers. Students completing this training will be prepared to service PC's of different makes and models, in a host of working environments. Further, the course will prepare the student to take the A+ OS Technologies Exam. (Prerequisites: CIS1521) (0 hrs lec/6 hrs lab/0 hrs OJT)

Term Course Codes:
(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

ELTN2470 Video Theory **2 credits (Arr)**
Video theory is a course which focuses on the theory of trouble shooting the PC monitor as video hardware. Repair and understanding of video as implemented/communicated from the PC to the video monitor, offers the student more career choices in the area of networks and their hardware. (Prerequisites: ELTN1430 and ELTN1435) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELTN2475 Video Lab **2 credits (Arr)**
Video lab is a course which focuses on the PC monitor as video hardware. Repair and understanding of video as implemented/communicated from the PC to the video monitor, offers the student more career choices in the area of networks and their hardware. (Prerequisites: ELTN1430 and ELTN1435) (0 hrs lec/4 hrs lab/0 hrs OJT)

ELTN2477 Electronics Internship **1-4 credits (Arr)**
This course provides the student with work-site experience in which skills and knowledge learned in previous courses may be applied. Technical skills and knowledge will include design, assembly, installation, operation, maintenance, and repair of machines, and equipment as appropriate to the internship site. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/3-12 hrs OJT)

ELTN2480 Communications Electronics **5 credits (S)**
This course covers the essential topics underlying basic electronic communications theory. Topics covered include, various analog and digital modulation schemes, basic antenna theory, EM wave propagation theory, transmission line and waveguide theory, and applications of these topics related to specific modern wireless communications systems. (Prerequisites: ELTN1410/1415 and concurrent enrollment in ELTN1430/1435) (5 hrs lec/0 hrs lab/0 hrs OJT)

ELTN2485 Communications Electronics Lab **5 credits (S)**
This course employs the use of experiments to verify the principles presented in the lecture course, ELTN2480, which should be taken concurrently. The student also learns to use electronic equipment commonly used in the electronic communications industry. (Prerequisites: Concurrent enrollment in ELTN2480) (0 hrs lec/10 hrs lab/0 hrs OJT)

ELTN2500 Servomechanisms and Synchros **2 credits (Arr)**
This course covers Synchros, Servos, and Open and Closed loop control systems. (Prerequisites: ELTN1400 and ELTN1405) (1 hr lec/2 hrs lab/0 hrs OJT)

ELTN2505 Networking + Service and Support **3 credits (S)**
Data communication is a changing field. Networking electronics skills are obtained by the student with a hands-on approach: building a peer-to-peer network, then a client-server network. Along with an understanding of the OSI model, the student puts previous learning to use with building and testing the data links for fax/modem/LANS and NIC cards; cabling techniques/problems and instructor inserted faults, both of a software and hardware nature. (Prerequisites: ELTN2465) (1 hr lec/4 hr lab/0 hr OJT)

ELTN2510 AM/FM/SSB Communication **4 credits (Arr)**
A course covering typical RF communication theory and practice in the three major types of modulation that are considered analog in nature. AM: Amplitude Modulation is taught using a citizens band transmitter and receiver. FM: Frequency Modulation is taught using the commercial broadcast channel receiver. SSB: Single Sideband is taught using a SSB transmitter and receiver. (Prerequisites: ELTN1430 and ELTN1435) (2 hrs lec/4 hrs lab/0 hrs OJT)

ELTN2515 A+ Preparation **1 credit (F/S)**
This course is designed to train students in the science of servicing personal computers. Students completing this training course will be prepared to service PC's of different makes and models, in a host of working environments. Further, the course will prepare the student to take the A+ Certification core and the DOS/Windows specialty exams. (Prerequisites: CIS1440, CIS2745, ELTN2410, ELTN2415, ELTN2465) (2 hrs lec/0 hrs lab/0 hrs OJT)

ELTN2999 Special Topics in Electronic Engineering Technology **1-3 credits (I)**
Study of special topics in electronic engineering technology. Special course topics will be announced in the class schedule.

Paramedic

EMTP1120 Paramedicine I **3 credits (F)**
At the completion of this course, the paramedicine student will understand the roles and responsibilities of a paramedic within an EMS system, apply the basic concepts of development, pathophysiology and pharmacology to assessment and management of emergency patients, and communicate effectively with patients. Additionally the paramedicine student will be able to take proper history and perform comprehensive physical exam on any patient, communicate the findings to others, integrate pathophysiological principles and assessment findings to formulate a field impression and understand how to implement the treatment plan for the trauma patient and safely manage the scene of an emergency. (Prerequisites: Current EMT-B license or certification and instructor approval) (3 hrs lec/0 hrs lab/0 hrs OJT)

EMTP1125 Emergency Vehicle Operations (EVOP) **1 credit (Arr)**
This course will prepare the paramedic student to operate an emergency care vehicle within the rules established by the Minnesota Emergency Medical Services Regulatory Board. (Prerequisites: Current EMT-Basic certification) (1 hr lecture, 0 hrs lab/0 hrs OJT)

EMTP1220 Paramedicine Skills I **3 credits (F)**
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, be able to establish and/or maintain a patient airway, oxygenate, and ventilate a patient, 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, and will be able to safely manage the scene of an emergency. (Co-requisite: (EMTP1120) (0 hrs lec/6 hrs lab/0 hrs OJT)

EMTP1225 Pharmacology 2 credits (S)

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 antiarrhythmics, analgesics, catecholamines, etc. will be introduced along with specific medications in each group. (Prerequisites: EMTP1120) (2 hrs lec/0 hrs lab/0 hrs OJT)

EMTP1300 Bioterrorism 2 credits (Arr)

This course is designed to introduce the student to special pre-hospital environmental difficulties found in Northern Minnesota. This course will also discuss bioterrorism as it relates to nuclear, chemical and biological situations the paramedic may face in the field. (Prerequisites: Current EMT-Basic license/certification) (2 hrs lec/0 hrs lab/0 hrs OJT)

EMTP1420 Paramedicine II 3 credits (S)

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. (Prerequisites: EMTP1120, EMTP1220; co-requisite: EMTP1520)

EMTP1520 Paramedicine Skills II 3 credits (S)

Skills covered include the basic and advanced skills required to properly manage respiratory and cardiac patients in the pre-hospital environment. These skills include, but are not limited to, respiratory assessment, cardiac assessment, defibrillation, cardioversion, medication administration, cardiac rhythm interpretation and 12 lead monitoring. (Prerequisites: EMTP1120, EMTP1220. Co-requisite: EMTP1420) (0 hrs lec/6 hrs lab/0 hrs OJT)

EMTP1600 Critical Care Clinical 2 credits (Arr)

This course covers clinical areas to include, but not limited to, medical, cardiac, and surgical intensive care units, emergency department, and telemetry. (Prerequisites: EMTP1420 and EMTP1520) (0 hrs lec/0 hrs lab/6 hrs OJT)

EMTP1700 Support Services Clinical 2 credits (Arr)

This course covers clinical areas that may include, but are not limited to, intubation, IV therapy, first response, dispatch, and respiratory therapy. (Prerequisites: EMTP1420 and EMTP1520) (0 hrs lec/0 hrs lab/6 hrs OJT)

EMTP1800 ALS Ambulance Clinical 4 credits (Arr)

This course is designed to introduce the paramedic student to an Advanced Life Support ambulance service. The student will become familiar with the operations, procedures and care provided by the paramedic in the field. The student will be involved with BLS and ALS patient care and treatment provided under the supervision of a staff paramedic. (Prerequisites: EMTP1420 and EMTP1520) (0 hrs lec/0 hrs lab/12 hrs OJT)

EMTP2020 Paramedicine III 4 credits (F)

At the completion of this course, the paramedic student will be able to integrate pathophysiological principles and assessment finding to formulate a field impression and implement the treatment plan for the patient with a neurological problem, endocrine problem, an allergic or anaphylactic reaction, a gastroenterologic problem, a renal or urologic problem, a toxic exposure, an environmentally induced or exacerbated medical or traumatic condition, with infectious and communicable diseases, with behavioral emergencies, experiencing a gynecological emergency, experiencing normal or abnormal labor. (Prerequisites: EMTP1600, EMTP1700, and EMTP1800) (4 hrs lec/0 hrs lab/0 hrs OJT)

EMTP2120 EMS Hazardous Materials 1 credit (F)

This course covers hazardous materials scene management for EMS personnel. Topics include identifying hazardous materials, scene safety, scene management, decontamination and scene access among others. (Prerequisites: Current EMT-B licensure or certification) (1 hr lec/0 hrs lab/0 hrs OJT)

EMTP2220 Paramedicine IV 3 credits (F)

This course will introduce the paramedic student into the operations and management of an Advanced Live Support ambulance service. It will additionally discuss certain types of rescue operations which will be necessary for successful patient outcomes in the pre hospital environment. (Prerequisites: EMTP2020)

EMTP2300 Advanced Cardiac Life Support Provider 1 credit (F)

This course will result in the certification of Advanced Cardiac Life Support Provider from the American Heart Association. It covers all of the aspects of treating cardiac patients at the advanced level to include basic and advanced airway control, cardiac rhythm interpretation, medication administration, and post resuscitation management. (Prerequisites: Current CPR-Experienced Health Care Provider certification, current RN, paramedic, or paramedicine, cardiovascular tech, or respiratory care student, and instructor's consent. 1 hr lec/0 hrs lab/0 hrs OJT)

EMTP2320 Advanced Trauma Life Support Provider 1 credit (F)

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. This class will utilize the national standard curriculum from either BTLs or PHTLS Advanced programs. The certification will be issued if all didactic and performance objectives are met. (Prerequisites: Current EMT-Intermediate, or EMTP1420 and EMTP1520) (1 hr lec/0 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

EMTP2340 Pediatric Advanced Life Support (PALS)
1 credit (S)

This course follows the course standards of the American Heart Association for PALS. The course leads to certification as a PALS provider upon successful completion. (Prerequisites: Current CPR-Experienced Health Care Provider certification, RN, paramedic, respiratory care therapist, or current second year paramedic student, and approval of the instructor) (1 hr lec/0 hrs lab/0 hrs OJT)

EMTP2360 Neonatal Resuscitation Program (NALS)
1 credit (S)

This course will result in the certification from the American Heart Association for NRP. The course leads to awarding of a certification upon successful completion of the class. (Prerequisites: Current CPR-Experienced Health Care Provider certification, RN, paramedic, respiratory care therapist, or current second year paramedic student, and approval of the instructor) (1 hr lec/0 hrs lab/0 hrs OJT)

EMTP2380 Advanced Medical Life Support Provider
1 credit (S)

This course covers the national certification requirements for Advanced Medical Life Support. Successful completion of the course will result in the awarding of certification as an AMLS provider. This certification is provided by the National Association of Emergency Medical Technicians. (Prerequisites: Paramedic, RN, or current second year paramedic student and approval of instructor.) (1hr. lec/0 hrs lab/0 hrs OJT)

EMTP2400 Emergency Department Clinical
3 credits (S)

This course covers the operations of the emergency department of an acute care hospital. The paramedic student utilizes all of the knowledge and skills learned to this point to provide patient care in this setting under the supervision of an RN and/or physician. (Prerequisites: Instructor' consent) (0 hrs lec/0 hrs lab/9 hrs OJT)

EMTP2500 Acute Care Clinical **3 credits (S)**

This course includes clinical rotation through labor and delivery, pediatrics, and psychiatry. The paramedic student utilizes all the knowledge and skills learned to this point to provide patient care in these setting under the supervision of appropriate staff. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/9 hrs OJT)

EMTP2600 Paramedicine Internship **8 credits (S)**

This course covers the application of advanced level skills and knowledge in the evaluation and care of the pre-hospital patient. The paramedic student will be involved in providing patient care as a team member and as a team leader under the direct supervision of a staff paramedic along with all the typical "follow-up" procedures prior to and after a response. (Prerequisites: Instructor's consent) (0 hrs lec/0 hrs lab/8 hrs OJT)

English

ENGL0450 Fundamentals of Writing I **3 credits (F/S)**

The main purposed of the course is to develop students' skills in recognizing parts of sentences and to increase students' competencies in composing them. Special emphasis will be placed on eliminating sentence boundary errors (run-ons, comma splices, fragments). Regular writing assignments will emphasize skills in observation and inductive thinking. (Prerequisites: Appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL0460 Fundamentals of Writing II **3 credits (F/S)**

This is a basic writing course which progresses from composition of expository paragraphs in several rhetorical modes to composition of expository essays. Attention is given to construction of effective sentences using all types of subordination, modification, methods of emphasis and effective thinking, especially levels of generality, conclusion, inference, and classification. Rules of grammar and punctuation are reviewed. (Prerequisites: Appropriate placement test score or ENGL0450 and READ0450 with a grade of "C" or better) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1100 Creative Writing **3 credits (I)**

This course is designed to stimulate creativity in thought and perception and to enhance each student's abilities to express his or her personal vision in written form. Students will be introduced to the basic language, concepts, and structures of fiction, creative non-fiction, poetry, and drama. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better, or equivalent; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1106 College Composition I **3 credits (F/S)**

First semester college-level composition course focusing on writing expository prose using word processing as a tool for composing. Emphasis is on writing as a process, critical reading, developing a voice, and grammar review. Presupposes competency in standard English. Required of all students working toward an AA, AS, or AAS Degree, unless special exemption is granted. MTC goal areas: (1) Communication and (2) Critical Thinking. (Prerequisites: Appropriate placement test scores and/or a "C" or better in ENGL0460 and READ0460; keyboarding skills, and READ1150 are highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1107 Professional and Technical Writing
3 credits (F/S)

This course is designed to strengthen skills in various areas of professional communications including business and technical writing in traditional formats, problem solving and analysis, oral communication and presentations. MTC goal area: (2) Critical Thinking. (Prerequisites: ENGL1106 with a grade of "C" or better, or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1109 College Composition II 3 credits (F/S)
Second semester college-level composition course focusing on academic writing using primary and secondary sources, including basic research using print and electronic sources. Emphasis is on writing as a process, critical analysis, summarizing, research, logical argumentation, and MLA documentation. Presupposes competency in standard English. Required of all students working toward an AA or AS Degree, unless special exemption is granted. MTC goal areas: (1) Communication and (2) Critical Thinking. (Prerequisites: ENGL1106 with a grade of "C" or better) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1110 Literature of the American West 3 credits (I)
The study of a broad range of literature identified with westward expansion across the American continent. The course includes the classical Western novel as well as more recent literary developments. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better or equivalent; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1115 Introduction to Literature: The Short Story 3 credits (I)
Analysis of selected short stories with reference to elements of plot, character, setting, theme, point of view, and symbolism, with a focus on critical analysis. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better required; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1120 Introduction to Literature: The Novel 3 credits (I)
Analysis of selected novels with reference to elements of plot, character, setting, theme, point of view, and symbolism, with a focus on critical analysis. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better required; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1130 Science Fiction 3 credits (I)
A study of highly imaginative literature representing modern trends in the writing of fantasy and science fiction. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better required; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1140 Introduction to Literature: Poetry 3 credits (I)
A study of poetry to develop an understanding of structural patterns, idioms, and meanings. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better, or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1150 Multicultural Literature 3 credits (I)
A study of multicultural literature to gain an understanding and an awareness of the cultural diversity in America: study of the conflicts and motivations, successes, and failures of those from different ethnic origins, economic backgrounds, and religious beliefs. MTC goal areas: (2)

Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1170 From Literature to Film 3 credits (I)
Comparative analysis of literary works and their screen adaptations. Focus on aesthetic and interpretive similarities and differences. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1200 Introduction to Language 3 credits (I)
An introduction to topics in linguistics, including phonology (language sounds), syntax (sentence structure), semantics (meaning), morphology (word formation), and the applications of linguistics to fields such as language variation and language acquisition. MTC goal areas (2) Critical Thinking and (7) Human Diversity. (Prerequisites:  ; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL1210 Introduction to Literature: Drama 3 credits (I)
A study of plays, focusing on identifying and analyzing themes, patterns, and conventions of drama. Emphasis is placed on seeing the human context, values, and assumptions embedded in dramas from the Ancient to Contemporary periods. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2101 English Literature 12th to 17th Century 3 credits (F)
The study of important works of English literature from the twelfth through the seventeenth centuries. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2102 English Literature 18th Century to Present 3 credits (S)
The study of important works of English literature from the eighteenth through the twentieth centuries. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2105 American Literature I 3 credits (F)
This course includes the study of major authors and movements of the Colonial, Revolutionary, Romantic, and Civil War periods of American Literature. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2106 American Literature II 3 credits (S)

This course includes the study of major American authors and movements from the turn of the century (1890-1910), including American literature written between World War I and World War II to the present. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2120 Introduction to African-American Literature 3 credits (I)

This course is an introduction to African-American literature through a study of representative samples of writing in a variety of genres. These writings will reflect the development of African-American literature over the past hundred years in America. Attention will be paid to the diversity and changes in the political climate both internal and external to African-American communities. MTC goal areas: (6) Humanities and Fine Arts and (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better, or equivalent, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2130 Introduction to Native American Literature 3 credits (I)

This is an introduction to Native American oral tradition and its transition to today's literary works. Attention will be given to religious, political, familial, and economic pressures that have shaped today's emerging literary tradition. MTC goal areas: (6) Humanities and Fine Arts and (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better, equivalent, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2140 Modern World Literature 3 credits (I)

A survey of world literature written after World War II. Readings will include selections of fiction, poetry, and essays from Africa, the Middle East, Asia, Australia, Oceania, Europe, Latin America, the Caribbean, and North America. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better,  ; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2150 Shakespeare, the Elizabethan Age, and Contemporary Perspectives 3 credits (I)

An analysis of selected writing of William Shakespeare, including the Sonnets, the Tragedies, the Comedies, and the Histories in their cultural and historical context. Some emphasis will be given to Shakespeare's legacy in subsequent ages and cultures including his influence on contemporary popular culture. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 and READ1450; prior elective in Humanities or English with a grade of "C" or better will be accepted in lieu of READ1450) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENGL2999 Special Topics in English 1-3 credits (I)

Study of special topics in English. Special course topics will be announced in the class schedule. (Prerequisites:  )

ENGL6000 Trade Communications 2 credits (F/S)

This course covers writing skills (sentence structure, grammar, punctuation, writing, spelling), locating and interpreting information, and listening and speaking skills, as applied to the trade careers. This course is occupational in nature and is not intended for transfer. (Prerequisites: ENGL0450 or equivalent) (2 hrs lec/0 hrs lab/0 hrs OJT)

Environmental Science**ENSC1200 Introduction to Environmental Science 4 credits (F/S)**

The relationship of humans to their environment from local, regional, and global perspectives. Includes the study of natural ecosystems, the impact of human activity on natural resources and environmental quality, environmental ethics, and strategies to maintain a sustainable biosphere. Laboratory component includes experiences in the scientific method, basic ecological and environmental field techniques and assessment, and selected field trips to local agencies, research facilities, and businesses. Intended to fulfill general education requirement and serve as foundational course in environmental science/studies programs. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (10) People and the Environment. (Prerequisites:  ) (3 hrs lec/2 hrs lab/0 hrs OJT)

ENSC1300 Meteorology 3 credits (F)

The weather elements are studied in detail to determine how they produce our weather. A climatological approach is used to develop an understanding of the weather elements and their distribution over the continent. MTC goal areas: (3) Natural Sciences. (Prerequisites: College-level reading) (3 hrs lec/0 hrs lab/0 hrs OJT)

ENSC2999 Special Topics in Environmental Science 1-3 credits (I)

Study of special topics in environmental science. Special course topics will be announced in the class schedule.

English as a Second Language**ESL0400 Intermediate Listening with Speaking 3 credits (I)**

This course provides opportunities for intermediate-level ESL students to improve their listening and speaking skills. Strategies for improving listening comprehension are presented and practiced. Course content is broad, of general interest, and includes unadapted and adapted material. Speaking practice is mostly at the word, phrase, and sentence levels. (Prerequisites: Appropriate score on the ESL Placement Test or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

ESL0410 Intermediate Reading/Literature
2 credits (I)

This course provides opportunities for intermediate-level ESL students to improve their reading skills. Strategies for improving reading comprehension, increasing reading rate, dealing with new words in context, and remembering new vocabulary are presented and practiced. Intensive reading, scanning, and extensive reading are emphasized. Effective use of an English-only learner's dictionary is taught. Course content is broad, of general interest, and includes both unadapted and adapted material. (Prerequisites: Appropriate score on the ESL Placement Test or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ESL0415 Intermediate Writing with Grammar
2 credits (I)

This course provides opportunities for intermediate-level ESL students to improve their writing skills. Strategies for improving writing include both in-class writing and out-of-class writing assignments on a variety of topics. Grammar covered will emphasize areas of need for ESL students. Special attention is paid to problems the particular students in the class are finding a challenge. Writing practice is mostly at the sentence and paragraph levels. (Prerequisites: Appropriate score on the ESL Placement Test or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ESL0420 Advanced Listening with Speaking
3 credits (I)

This course provides opportunities for advanced-level ESL students to further improve their listening and speaking skills. Strategies for improving listening comprehension are reviewed and practiced. The content of the course is broad and of general interest, and includes both unadapted and adapted material. Speaking practice is mostly at the sentence level and above. (Prerequisites: Appropriate score on the ESL Placement Test, satisfactory completion of ESL0400, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ESL0430 Advanced Reading/Literature **2 credits (I)**

This course provides opportunities for advanced-level ESL students to further improve their reading skills. Strategies for improving reading comprehension, increasing reading rate, and dealing with new words in context are practiced. Reading selections are mostly unadapted or only slightly simplified. (Prerequisites: Appropriate score on the ESL Placement Test, satisfactory completion of ESL0410, or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ESL0435 Advanced Writing with Grammar
2 credits (I)

This course provides opportunities for advanced-level ESL students to further improve their writing skills. Grammar difficulties displayed in students' writings are dealt with in class or individually with the instructor as appropriate. Writing practice is mostly at the paragraph level and above. (Prerequisites: Appropriate score on the ESL Placement Test, successful completion of ESL0415, or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

ESL0440 English as a Second Language for Academic Purposes
3 credits (I)

This course is designed to improve the reading, writing, and speaking, and listening skills of students whose native language is not English. Special emphasis on note taking skills and vocabulary prepares students for other courses requiring competence in the English language. (Prerequisites: ESL0400, ESL0430, and ESL0435, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

ESL2999 Special Topics in English as a Second Language
1-3 credits (I)

Study of special topics in English as a second language. Special course topics will be announced in the class schedule.

Fire Technology & Administration

FIRE1401 Today's Fire Service **2 Credits (F/S)**

This course is designed to familiarize the student with the modern fire service. Included is a historical perspective of how evolution shaped the present day fire department. Different aspects of the fire service will be addressed, including hiring practices, the working environment, and an introduction to the employee/employer relationship. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

FIRE1405 Recruit Fire Fighter **2 Credits (F/S)**

This course is designed to meet all the Standards of NFPA 1001, Fire Fighter I. "The person, at the first of progression as defined by NFPA1001, who has demonstrated the knowledge and skills necessary to function safely and effectively as an integral member of a fire fighting team. When engaged in hazardous activities, the Fire Fighter I works under direct supervision." (Prerequisites: Concurrent enrollment in FIRE1441 and current medical approval - medical physical) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE1410 Building Construction **3 credits (F/S)**

This course covers the basic building construction techniques and types as they apply to fire fighter safety, fire behavior, and building behaviors when subjected to fire. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

FIRE1420 Inspection, Codes, and Practices
3 credits (F/S)

The Uniform Fire Code, the NFPA Life Safety Code, the Uniform Building Code, and the basics of conducting a fire prevention inspection will be learned through lecture, worksheets, and basic inspections. The student will also learn the details of inspection preparation, delivery, and methods for taking corrective actions. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

FIRE1430 Hazardous Materials, Operations
2 credits (F/S)

This course is designed to meet NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, Operations Level. This course is also designed to comply with 29 CFR 1910.120 Hazardous Materials Operations Level. (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE1431 HazWoper/Safety Refresher 1 credit (Arr)
This course is designed to meet the requirements of various OSHA ongoing training requirements for various types of CFR part 29 industries. It focuses on what to do in a Hazardous Materials emergency both on and off site. Various types of environmental monitoring methods are used by the students, along with the equipment they need to assess the problem. Required reports are also covered. (Prerequisites: Initial OSHA HazWoper Training as required by CFR 29 1920.120) (1 hr lec/0 hrs lab/0 hrs OJT)

FIRE1441 Recruit Fire Fighter Lab 2 credits (F/S)
This course is designed to meet all the Standards of NFPA1001, Fire Fighter I. The person, at the first of progression as defined by NFPA1001, who has demonstrated the knowledge and skills necessary to function safely and effectively as an integral member of a fire fighting team. When engaged in hazardous activities, the Fire Fighter I works under direct supervision. (Prerequisites: Concurrent enrollment in FIRE1405) (0 hrs lec/4 hrs lab/0 hrs OJT)

FIRE1450 Fire Apparatus Operation 2 credits (F/S)
This covers the major types of fire fighting apparatus such as pumpers, aerial apparatus, and other support vehicles. Students will be taught operation and operator maintenance of these specific vehicles. (Prerequisites: Valid driver's license) (0 hrs lec/4 hrs lab/0 hrs OJT)

FIRE1460 Fire Fighting Tactics and Strategy 3 credits (F/S)
This course covers the basic fire fighting tactics and strategy used in all types of fire emergencies. Preplanning, size up, and application of tactics based on the selected strategy will be described and simulated for student learning. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

FIRE1470 Natural Cover Fire Fighting 2 credits (F/S)
This course covers basic fire fighting operations and equipment used in wildland fire fighting. The course will use appropriate state and federal wildland fire fighting procedures and references. There will be live fire exercises. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE1480 Basic Aircraft Rescue and Fire Fighting 3 credits (Arr)
This class is designed to provide the basic skills needed by a fire fighter working in an aircraft and airport environment. It covers all of the skills enumerated by the Federal Aviation Administration in the Part 139 regarding emergency fire and rescue operations. There will be live fire exercises involved that cover multiple types of fire emergencies related to aircraft operations both in the air and on the ground. Students will also cover the basics of aircraft rescue and fire fighting vehicle operations and tactics. (Prerequisites: None) (2 hrs lec/2 hrs lab/0 hrs OJT)

FIRE1510 Public Fire Education 2 credits (F/S)
This course covers public fire education programs that are used throughout the United States and will teach the student the fundamental techniques involved in education. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

FIRE1520 Rope Rescue Techniques 1 credit (F/S)
This course is designed to teach the student the safest and most appropriate ties, lifts, and belays for proper application to rescue or other evolutions of the fire service. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

FIRE1530 Low Angle Rescue 1 credit (F/S)
This course is designed to teach the student proper techniques for safely performing rescues on low angle rugged terrain. The student will be able to perform rescues and patient transfer from both above and below when the patient is conscious or unconscious. (Prerequisites: FIRE1520 or FIRE2500, or instructor consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

FIRE1540 Fire Fighter I and II 3 credits (F/S)
The intent of this course is to teach the student the minimum job performance requirements for a professional fire fighter in accordance with the National Fire Protection Association 1001, Fire Fighter Professional Qualifications and the National Fire Protection Association 1403, Live Fire Training for Evolutions In Structures. This course must be taken in concert with FIRE1550. (3 hrs lec/0 hrs OJT)

FIRE1550 Fire Fighter I and II Lab 3 credits (F/S)
The intent of this course is to teach the student the minimum job performance requirements for a professional fire fighter in accordance with the National Fire Protection Association 1001, Fire Fighter Professional Qualifications and the National Fire Protection Association 1403, Live Fire Training for Evolutions In Structures. This course must be taken in concert with FIRE1540. (Prerequisites: Doctors medical approval required) (0 hrs lec/6 hrs lab/0 hrs OJT)

FIRE1556 EMS First Responder 3 credits (Arr)
This is a Department of Transportation course that can lead to certification as a First Responder both at the state and national levels. This course covers the basics of out-of-hospital emergency care and patient packaging. It emphasizes use of available materials as well as prepackaged medical care supplies. (Prerequisites: If the student wishes to attain either state or national registration they must be 18 years of age prior to taking the exams and must be free of any felony convictions.)

FIRE1558 EMS First Responder Refresher 1 credit (Arr)
This course fulfills the requirements for ongoing certification as a First Responder at either the state or national level. It covers all the topical areas included in the Department of Transportation EMS First Responder Curriculum. (Prerequisites: Current certification as a First Responder) (0 hrs lec/2 hrs lab/0 hrs OJT)

FIRE1560 Emergency Medical Technician-Basic **6 credits (F/S)**

This is a Department of Transportation course for the certification of out of hospital care personnel. The course covers the basic emergency care concepts and practices required to work on a Basic Life Support ambulance throughout the United States. It covers basic to the more advanced techniques and principles of out of hospital care. (Prerequisites: 16 years old to take course and 18 years old to attain national certification. You must have a felony-free record to become nationally certified) (2 hr lec/8 hrs lab/0 hrs OJT)

FIRE1565 Wilderness Survival **2 credits**

At the completion of this course, knowledge and experience gained through practical application of the concepts covered in the classroom will give an individual the tools they might need to survive in a wilderness environment with minimal equipment. This course is applicable to anyone who might find themselves in a survival situation away from civilization and supplies. Pilots, sportsmen, rescue workers, and others who might find themselves in the outdoors by circumstance and not by choice will benefit from the concepts presented. The goal is to raise awareness and the ability to make sound decisions in critical situations, and to be able to prioritize needs based on what is going on around the individual or group. (Prerequisites: None) (1 hr lec/2 hours lab/0 hrs OJT)

FIRE2400 Fire Service Reporting **3 credits (F)**

This course covers the fundamentals of writing reports and the written transmission of official information required of fire service personnel. This information includes SOP/SOG's MNFIRS/NFIRS run reports including confined space and HazMat, and related letters, memos, and press releases. The principles of clear writing, grammar, spelling, and punctuation will be studied to complete required documentation. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

FIRE2411 Recruit Fire Fighter II **2 credits (F/S)**

This course is designed to meet all the Standards of NFPA1001, Fire Fighter II. The person, at the second level of progression as defined by FNPA1001, who has demonstrated the skills and depth of knowledge necessary to function under general supervision. This person will function safely and effectively as an integral member of a team of equally or less experienced fire fighters to accomplish a series of tasks. When engaged in hazardous activities, the Fire Fighter II maintains direct communication with a supervisor. (Prerequisites: FIRE1405 and FIRE1441) (0 hrs lec/4 hrs lab/0 hrs OJT)

FIRE2420 Fire Instructor **2 credits (F)**

This course will focus on educational techniques both within and outside of the fire service. (Prerequisites: 10 FIRE prefix credits or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2430 Fire Officer **2 credits (F)**

This course is designed to introduce the student to the role of the Fire Officer. The course will focus on individual development, leadership techniques, team building, and problem solving. (Prerequisites: 15 technical credits or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2440 The Chemistry of Hazardous Materials **3 credits (F)**

This course is designed to increase the working knowledge of the hazardous materials responder. Emphasis will be placed on understanding the basic chemical behavior and reasons for this behavior for hazardous materials. (Prerequisites: Hazard materials operations course; a college chemistry course is also strongly recommended) (1 hr lec/4 hrs lab/0 hrs OJT)

FIRE2460 Fire Inspection and Prevention Applications **3 credits (S)**

The techniques and application of fire inspection and prevention practices will be developed and applied. Advanced concepts, code enforcement, and public education will be the primary focus with some special hazards explored. (Prerequisites: FIRE1420 or instructor's consent) (1 hr lec/4 hrs lab/0 hrs OJT)

FIRE2470 Fire Investigation **3 credits (S)**

An analysis of fire investigation from the viewpoint of the field investigator, with emphasis on the basic techniques of identifying the point of origin, the detection of arson, collection and preservation of evidence, investigation, interviews, related legal aspects and documentation. (Prerequisites: 20 technical credits from FIRE or instructor's consent) (2 hr lec/2 hrs lab/0 hrs OJT)

FIRE2500 Rescue **2 credits (S)**

This course covers the basic rescue techniques, tools, and equipment. Specifically, students will participate in high-level rescue, ice rescue, auto extrication, and water rescue. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2511 Company Functions **1 credit (F/S)**

This course is designed to apply the knowledge and skills from previous courses and translate their applications to the fire ground. To specifically address Engine and Truck Company functions and their inter-relationship on the fire ground. (Prerequisites: FIRE1405 and FIRE1441 or FIRE1540 and FIRE1550) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2520 Fire Management **2 credits (F)**

This course covers the basic management techniques and procedures to improve crew production and morale. Other information will address the details of tactical response, budgeting processes, and the written information required for a fire department. (Prerequisites: 20 FIRE prefix credits) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2530 Fire Apparatus, Advanced **2 credits (Arr)**

This course will focus on advanced techniques of fire apparatus operations including complex pumping situations and aerial evolutions. (Prerequisites: FIRE1450) (0 hrs lec/4 hrs lab/0 hrs OJT)

FIRE2540 High Angle Rescue **1 credit (S)**

This course is designed to teach the student proper techniques for safely performing rescues on steep or vertical terrain. The student will be able to perform rescues and patient transfer from both above and below when the patient is conscious or unconscious. (Prerequisites: FIRE1520 or FIRE2500 or instructor consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

FIRE2550 Confined Space Rescues 1 credit (F/S)
This course is designed to acquaint students with the applicable State and Federal regulations pertaining to confined space operations. It will enable the students to select and use proper monitoring, ventilation, and retrieval systems for safe and effective confined space entry and rescue situations. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

FIRE2560 Chemistry of Hazardous Materials II 2 credits (Arr)
This course is designed to increase the working chemical knowledge of the fire fighter and will focus on corrosive acids and alkalis, flammable solids, Class A fuels, and the hazards of plastics. (Prerequisites: FIRE2440 or instructor's consent) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2570 Hazardous Materials, Technician 3 credits (Arr)
This course is designed to meet NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, Technician Level. This course is also designed to comply with 29 CFR 1910.120 Hazardous Materials, Technician Level. (Prerequisites: FIRE1430 and FIRE2440 or instructor's consent) (3hrs lec/0hrs lab/0 hrs OJT)

FIRE2600 EMT-Refresher 2 credits (Arr)
This course covers the material and new techniques for the currently practicing EMT-Basic to successfully make the transition to the 1992 DOT curriculum. It will prepare the student to take the exams required by the MNEMSRB and the NREMT to continue providing emergency care in the field. The student must be currently registered as an EMT-Basic, or no more than one year past the expiration date. (Prerequisites: Current state or national registration as an EMT-B) (1 hr lec/2 hrs lab/0 hrs OJT)

FIRE2610 Fire Internship 100 1 credit (Arr)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (100 hrs/semester OJT)

FIRE2620 Fire Internship 300 2 credits (Arr)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (200 hrs/semester OJT)

FIRE2630 Fire Internship 300 3 credits (Arr)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be

assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (300 hrs/semester OJT)

FIRE2640 Fire Internship 400 4 credits (Arr)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (400 hrs/semester OJT)

FIRE2650 Fire Internship 500 5 credits (Arr)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (500 hrs/semester OJT)

FIRE2660 Fire Internship 600 6 credits (ARR)
This course is designed to give the student actual fire department experience while under close supervision. Program length and hours vary dependent on each fire department's schedule and needs. The student will be assigned a duty shift and will follow the rules of the internship and the rules of the individual department. This course may be taken for a maximum of three semesters. (Prerequisites: Refer to the specific requirements of each internship agreement, and successful completion of 18 FIRE prefix credits) (600 hrs/semester OJT)

FIRE2999 Special Topics in Fire Technology and Administration 1-3 credits (I)
Study of special topics in fire technology and administration. Special course topics will be announced in the class schedule.

French

FREN1010 Beginning French I 5 credits (I)
This course is designed to give students a basic knowledge of the French language and culture through readings, study of grammar, pronunciation, and spelling. This course meets language requirements for admission to selective colleges and universities. (Prerequisites:   or instructor's consent) (5 hrs lec/0 hrs lab/0 hrs OJT)

FREN1020 Beginning French II 5 credits (I)
This course is designed to give students a basic knowledge of the French language and culture through readings, study of grammar, pronunciation, spelling, and conversation. This course meets language requirements for admission to selective colleges and universities. (Prerequisites: FREN1010) (5 hrs lec/0 hrs lab/0 hrs OJT)

FREN2010 Intermediate French I 3 credits (I)
Intermediate level listening, speaking, reading and writing with an intensive review of the fundamentals of the French language. Readings deal with social and cultural topics of French-speaking countries with emphasis on vocabulary building. (Prerequisites: FREN1010, FREN1020 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OT)

FREN2999 Special Topics in French 1-3 credits (I)
Study of special topics in French. Special course topics will be announced in the class schedule.

Geography

GEOG1110 Human Geography 3 credits (F/S)
Human Geography is the study of people, places, cultures, and the environment from a global perspective. Students learn about human populations and migrations, the world's cultural groups and realms, the political organization of the world, the global economy, and lifestyle differences between more and less developed regions. MTC goal areas: (5) History and the Social and Behavioral Sciences and (8) Global Perspective. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

GEOG1120 Physical Geography 4 credits (F)
Students are introduced to the physical systems of the earth. Weather and climate, the earth's vegetation and ecological regions, and the processes of mountain building and gradation which shape the earth's landscapes are studied from a global perspective. MTC goal areas: (3) Natural Science and (10) People and the Environment. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING]) (3 hrs lec/2 hrs lab/0 hrs OJT)

GEOG2999 Special Topics in Geography 1-3 credits (I)
Study of special topics in geography. Special course topics will be announced in the class schedule.

Geology

GEOL1110 Introduction to Geology 4 credits (S)
Students are introduced to the materials of the earth's crust and learn how to identify the earth's primary rocks and minerals. Students study the geologic processes of the earth: plate tectonics, volcanic activities, earthquakes, weathering, erosion, glaciation, and landscape change. Other topics include geologic time, earth resources, and environmental problems. MTC goal areas: (3) Natural Science and (10) People and the Environment. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING]) (3 hrs lec/2 hrs lab/0 hrs OJT)

GEOL2999 Special Topics in Geology 1-3 credits (I)
Study of special topics in geology. Special course topics will be announced in the class schedule.

History

HIST1110 European History 3000 B.C. to 1870 3 credits (F)

The study of the Medieval World, the Renaissance, Reformation, expansion of Europe, the rise of monarchical states, the scientific revolution, the enlightenment, revolutionary nationalism, the decline of absolutism, the forces of liberalism and nationalism, and the industrial revolution. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HIST1120 European History 1870 to Present 3 credits (S)

The study of the industrialist and nationalist competition, the Great War, the rise of totalitarianism, the Second World War, the decline of colonialism, and the rival state systems in the post-war era. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HIST1210 American History 1600 to 1876 3 credits (F)

The study of the survey of the political, economic, and social history of the United States during the colonial and early national periods, as well as expansionism, sectionalism, Civil War and reconstruction. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HIST1220 American History 1876 to Present 3 credits (S)

The study of survey of the political, economic, and social history of the United States during the periods of industrialization and imperialism, as well as, the twentieth century. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HIST2110 Minnesota History 3 credits (I)

This course is a survey of Minnesota's history from European discovery to the present. Topics include Indian life in Minnesota; exploration and the fur trade; European competition over Minnesota; initial American settlement; statehood; the Dakota Conflict; the Civil War, agriculture, lumbering, mining, and industry in nineteenth century Minnesota; the Progressive Period; the 1920's; the Depression, World War II's impact on Minnesota; and the state's political and economic history since 1945. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

HIST2130 Vietnam: American's Longest War **3 credits (F/S)**

The Vietnam War was a divisive event in American history which has had repercussions and far-reaching consequences. This course examines the cultures, people, and geography of Indochina, American's initial interest in Vietnam during World War II, the gradual involvement of America from 1945 to 1960, the policies that Kennedy, Johnson and Nixon pursued in Southeast Asia, the war at home and student protests, the Paris Peace Accords of 1973, the fall of Indochina to communism, and the effects of the war on the Indochinese and on American society.

[This course is unique because it uses the popular music of the period as a teaching tool that effectively supplements the textbook and lectures in providing student with insight into historical context of the Vietnam War.]

MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (9) Ethics and Civic Responsibility. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HIST2999 Special Topics in History **1-3 credits (I)**
Study of special topics in history. Special course topics will be announced in the class schedule.

Health

HLTH1210 Nutrition **2 credits (F/S)**

This course covers an introduction to the basic principles of nutrition. Course content includes: the role of nutrients in the maintenance of normal health, the effects of nutrition on disease, nutrition in the human life cycle, food behaviors and diet planning. Students complete a self-analysis of their own diets. (Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

HLTH1400 Wellness Careers **2 credits (I)**

This course will examine the rapidly developing field of wellness education. Special attention will be devoted to the future selection of professional careers based upon local, regional and national job market demands. (Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

HLTH1405 Tobacco, Alcohol and Other Drugs **2 credits(S)**

This course is designed to introduce students to holistic health related to drug use and abuse. Medical, psychological, sociological and legal aspects of drug use and abuse will be examined with emphasis on how people use and abuse drugs in our society. (Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

HLTH1410 Nutrition in Athletic Performance **2 credits (I)**

This course is designed to introduce the student to principles of nutrition as they specifically relate to the unique needs of physically active-people and athletes. The course builds on the knowledge of basic nutrition to provide the student with an understanding of how to use nutrition to get the most out of training and sports performance. (Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

HLTH1430 Personal Wellness **3 credits (I)**
A study of the balance necessary to live a vital and healthy lifestyle. The course integrates components of physical, mental, social, emotional, environment, occupational, academic, spiritual and cultural needs as part of a multi-pronged approach to wellness. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

HLTH2999 Special Topics in Health **1-3 credits (I)**
Study of special topics in Health. Special course topics will be announced in the class schedule.

Humanities

HUM1105 Introduction to Popular Culture **3 credits (I)**

A study of popular culture (film, television, literature, advertisements, music) in relation to the mythological and archetypal characters and motifs they depict. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1110 The Bible as Literature **3 credits (S)**
Selected readings and analysis of Old and New Testaments with emphasis on literary characteristics of the text, including archetypal plots, patterns and characters. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1115 Introduction to Humanities: The Renaissance Through the Contemporary Periods **3 credits (I)**

This course explores the human heritage from the Renaissance through the contemporary periods and considers the impact the Renaissance, industrial revolution, and realism had on the modern world. Attention will be given to all aspects of human achievement, including, but not limited to, sociological, political and economic systems; art, literature, and architecture; and mythology, religion, and philosophy. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1120 Introduction to Humanities: The Classical Through Medieval Periods **3 credits (I)**

This course explores the human heritage from the beginning of recorded history through the Medieval period and considers the impact of this heritage on the modern world. Attention will be given to all aspects of human achievement, including, but not limited to, sociological, political, and economic systems; art, literature, and architecture; and mythology, religion, and philosophy. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1125 Introduction to Humanities: The Arthurian Legend **3 credits (I)**

This course explores the Arthurian Legend from its beginnings to the contemporary period. Attention will be given to all aspects of the development of the legend, including, but not limited to, historical, sociological, political; art, literature, film; and mythology, religion and philosophy. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1130 Comparative Religion **3 credits (I)**

Exploration of the teachings and practices of several major world religions selected from ancient polytheism, Zoroastrianism, Gnosticism, Christianity, Judaism, Islam, Taoism, Buddhism, Hinduism, and various Native American and African religions. Emphasis given to literary as well as scriptural texts. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, (7) Human Diversity, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1135 Utopian Images: Fiction and Fact **3 credits (S)**

Exploration of the model societies human beings have imagined in fiction and attempted to construct in fact. The course examines ideal communities as expressed in Utopian treatises, science fiction, pastoral poetry and art, religious traditions, architecture, urban designs, and elements of contemporary popular culture. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1140 Modern Fantasy **3 credits (F)**

This course explores the diversity of human imagination in diverse cultures. Emphasis is given to non-technological speculative fiction, such as that dealing with alternate realities, alternate histories, fantastic anthropomorphic creatures, and the horror genre of literature. Attention is given to the unprecedented rise in popularity of the fantasy/horror genre in the twentieth century and its corresponding sociological, psychological, political, and economic roots. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1160 Classical Greek and Roman Mythology **3 credits (I)**

The course includes important classical Greek and Roman myths, their major archetypal patterns, and their interpretation by various authors. This course is designed as a foundation to prepare students for other literature courses by introducing them to the literary illusions and mythological references found in American, British, and other literatures. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1180 Comparative Mythology **3 credits (I)**

An analysis and comparison of selected world myths. Considerable emphasis will be placed on discerning archetypal characters, plots and motifs and the discovery of universal patterns of human behavior in the myths. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM1190 Folklore **3 credits (I)**

Readings in folk tales, myths, fairy tales, and narrative poetry based on folk materials. Folk representations in a variety of media, including literature, film, music, and art will be examined, with some emphasis on the evolution and interpretation of the contemporary American urban legend. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, (7) Human Diversity. (Prerequisites: ENGL1106 with a grade of "C" or better; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM2000 Topics in Humanities **1 credit (I)**

This course offers an opportunity to explore various topics in the Humanities. The subject matter will vary but will always be focused on global themes. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (8) Global Perspective. (Prerequisites:   (1 hr lec/0 hrs lab/0 hrs OJT)

HUM2010 Understanding Archetype, Dream, and Symbol **3 credits (I)**

Introduction to archetypal theory and its application in daily personal and public life. Through the analysis of various media, including art, film, folklore, and personal writing, students will learn to identify cultural icons and the meanings behind them. Emphasis placed on the historical, psychological, and sociological origins of symbolism as a vehicle of communication. An underlying premise is that the personal unconscious (dream) is the ultimate source of the societal dream (popular culture). MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 or equivalent; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM2100 Children's Media-Origins and Interpretations **3 credits (F)**

An examination of children's literature, folklore, film, and television through the study of the history of children's media, as a reflection of ethnic culture, the parallels between children's and adult's media, and the characteristics and genres of children's media. Emphasis given to both media directed at children and the portrayals of childhood (toddler through adolescent) in popular culture. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts and (7) Human Diversity. (Prerequisites: ENGL1106 or equivalent; READ1450 highly recommended) (3 hrs lec/0 hrs lab/0 hrs OJT)

HUM2999 Special Topics in Humanities **1-3 credits (I)**

Study of special topics in humanities. Special course topics will be announced in the class schedule.

Paralegal Studies

LGST1400 Legal Studies I: Terminology, Procedures, and Documentation 3 credits (F)

This course introduces the student to the specific terminology and procedures used by paralegal professionals and to the proper documentation of legal information. It also covers legal ethics, legal analysis, legal evidence, and investigation. (Prerequisites: Keyboarding/word processing ability,   (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1410 Legal Studies II: Research and Document Preparation 3 credits (S)

This course covers methods of research and document preparation used by the legal profession, including citation forms, appellate procedure within the specific areas of the law. The administration of a law office and formal advocacy are included, as well as a review of legal writing style. (Prerequisites: LGST1400 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1420 Business Law 3 credits (F)

This course focuses on how civil law affects the operation of businesses. It is designed to provide paralegals with the information they need to work under the supervision of counsel in the legal department of a corporation or to assist attorneys that specialize in providing counsel to businesses. It also provides the general public with knowledge of the legal environment in which businesses operate. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1430 Advanced Legal Research 3 credits (F)

This course examines advanced and specialized approaches to utilizing the legal sources available in the law library and online. (Prerequisites: LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1440 Constitutional Law and Civil Liberties 3 credits (Arr)

This course is designed to provide an introduction to the United States Constitution and its amendments. Students will study the allocation of powers, the system of checks and balances, and the concept of individual rights, liberties, and protection. Through this course students will also develop a better understanding of the Bill of Rights. (Prerequisites: LGST1400, LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1450 Contract Law 3 credits (S) (Arr)

This course introduces the student to the specific terminology, concepts and procedures for the development of contracts as well as identifying remedies for breach. The formation of contracts for the sale of goods under the Uniform Commercial Code will be included in the course. (Prerequisites: LGST1420) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1460 Criminal Law 3 credits (F/S) (Arr)

This course begins with an overview of the concept of punishment and goes on to study the burden of proof and criminal defenses; it also provides a critical look at the most common crimes. Students will learn common terminology in criminal law and how to consider a crime thoroughly in terms of its elements. (Prerequisites: LGST1400 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1470 Estate Planning: Wills, Trusts, and Probate 3 credits (Arr)

This course discusses the paralegal's role in estate planning. The course will explore various tools available to achieve the goal of estate planning: wills, trusts, durable powers of attorney, intrafamily gifts, and charitable transfers. Students will also be exposed to the ethical issues involved in estate planning and the increasing use of living wills and health care proxies. (Prerequisites: LGST1400, LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1480 Family Law 3 credits (Arr)

This course begins with an overview of divorce law and reviews important aspects to consider in property division, alimony, custody and support in a divorce. Other aspects of the course include prenuptial agreements, adoptions and paternity actions. (Prerequisites: LGST1400 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1490 Alternative Dispute Resolution: Mediation 3 credits (Arr)

Students will learn negotiation skills and how to select the most cost-effective and least intrusive alternative dispute resolution method to achieve the most positive result for both parties. Students will understand the processes and methods of alternative dispute resolution techniques, learn the proper application and limits of alternative dispute resolution techniques, appreciate the ethical consideration involved, and develop a basic ability to apply the methods. (Prerequisites: LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1500 Victim Advocacy 3 credits (Arr)

This course focuses on victim advocacy arenas such as domestic violence shelters, crisis centers, crisis hotlines and the criminal justice system. Course topics include legal terminology, legal process, legislation regarding victim's rights, jurisdiction and venue, ethics, effects of victimization on the victim, victim advocate skills, guardianships and crisis intervention. (Prerequisites: LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

LGST1510 Bankruptcy Law 3 credits (Arr)

This course is designed to introduce paralegal students to the complexities of bankruptcy law to help train them to work as paralegals in the area of bankruptcy. It also provides paralegals working in other areas of law with the knowledge they may need to assist their attorney with clients who receive notice of bankruptcy. (Prerequisites: LGST1410 or instructor consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

Mass Communications

MACO1200 Introduction to Media: The Genres of Journalism 3 credits (I)

The functions and criticism of the media with emphasis on basic journalism (reporting, interviewing, news writing and layout) as it relates to television, newspapers and magazines. MTC goal areas: (2) Critical Thinking and (8) Global Perspective. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

MACO1205 Introduction to Media: Journalistic Perspectives 3 credits (I)

The examination of basic journalism theories and regulations as they apply to writing articles, editorials and commercials, and layouts as they relate to the various media. MTC goal areas: (2) Critical Thinking and (9) Ethic and Civic Responsibility. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

MACO2999 Special Topics in Mass Communications 1-3 credits (I)

Study of special topics in mass communications. Special course topics will be announced in the class schedule.

Math

MATH0450 Pre-Algebra 4 credits (F/S)

This course covers whole numbers, fractions, decimals, ratio/proportions, percent, U.S. and metric measure, signed numbers, algebraic expressions, linear equations, applied geometry, and exponents. (Prerequisites: Appropriate placement test score) (4 hrs lec/0 hrs lab/0 hrs OJT)

MATH0460 Algebra I 3 credits (F/S)

This course covers solving elementary equations and inequalities, graphing, solutions for systems of equations, polynomials, factoring, rational expressions, and applications. (Prerequisites: MATH0450 or appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH0470 Algebra II 3 credits (F/S)

This course covers operations with radical and rational expressions, solutions for equations containing radicals, solutions for equations containing rational expressions and quadratics, graphs of linear equations and conic sections, solutions for systems of linear equations, graphs of linear and nonlinear inequalities, and functions. (Prerequisites: MATH0460 or equivalent or appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH0552 Refresher/Pre-Algebra 1 credit (I)

This course is a refresher of whole numbers, fractions, decimals, ratio/proportions, percent U.S. and metric measure, signed numbers, algebraic expressions, linear equations, applied geometry, and exponents. It is designed to reinforce basic math skills for students that have tested into Pre-Algebra on the Placement Test, but have completed a higher level math course in recent years. This course is not equivalent to Pre-Algebra, it is only a preparation to retake the College Placement Test. (Prerequisites: Algebra I or higher in high school (with a B Average Grade) and a Math Placement score of 40 or below) (1 hr lec/0 hrs lab/0 hrs OJT)

MATH1100 College Algebra 4 credits (F/S)

The study of functions, theory of equations, inequalities, exponential and logarithmic functions, conic sections, and selected topics from advanced algebra. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH0470 or MATH1532 or appropriate placement test score) (4 hrs lec/0 hrs lab/0 hrs OJT)

MATH1105 Principles of Mathematics 3 credits (F/S)

Problem solving, numeration methods and mathematical systems, sets, symbolic logic, probability and statistics, and

applications of mathematics. For all students-a liberal education course. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH0470 or MATH1532 or appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1110 Finite Mathematics 3 credits (Arr)

System of linear equations, matrixes, linear programming, probability, statistics, and applications. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH0470 or appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1120 Survey of Calculus 3 credits (Arr)

This course covers some of the topics of calculus important for business applications. Topics studied include: functions, limits, derivatives, techniques of differentiation, applications of derivative, the integral, techniques of integration, differentiation, and integration of logarithmic and exponential functions. Many different applications in business fields are covered. This course is not a substitute for Calculus I and is primarily taken by students pursuing business or accounting majors. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH1100 or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1130 Trigonometry 3 credits (S)

Angles, circular functions, identities, right triangles, Law of Sines, Law of Cosines, trigonometric equations, vectors, trigonometric form of complex numbers, and applications. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH1100 or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1150 Pre-Calculus 4 credits (F/S)

Algebraic operations, functions, theory of equations, inequalities, graphs of function, logarithmic, and exponential function analytic trigonometry. Intended to be taken as a review course covering topics of both College Algebra and Trigonometry. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH0470 or equivalent) (4 hrs lec/0 hrs lab/0 hrs OJT)

MATH1420 Occupational Math/Health 1 credit (F/S)

This course covers ratio and proportions; U.S., metric, and apothecaries measurements; equations and formulas; and exponents. (Prerequisites: MATH0450 or concurrent enrollment or appropriate placement test score) (1 hr lec/0 hrs lab/0 hrs OJT)

MATH1440 Occupational Math/Transportation 1 credit (F)

This course covers decimals, fractions, percentages, signed numbers, ratios, and proportions as it applies to the automotive and diesel trades. (Prerequisites: MATH0450 or may be taken concurrently with MATH0450 with instructor's consent, or CPT Elementary Algebra Test score of 46 or better) (1 hr lec/0 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

MATH1521 Calculator Technology (TI-30)**1 credit (Arr)**

This course provides an opportunity for students to learn to operate a scientific calculator and to improve math skills with technology. The student will unlock new methods of solving equations, graphing, and problem solving with the use of the “super” calculators. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MATH1522 Calculator Technology (TI-85)**1 credit (Arr)**

This course provides an opportunity for students to learn to operate a scientific calculator and to improve math skills with technology. The student will unlock new methods of solving equations, graphing, and problem solving with the use of the “super” calculators. (Prerequisites: MATH0460 or MATH1531) (1 hr lec/0 hrs lab/0 hrs OJT)

MATH1531 Technical Math I**3 credits (F/S)**

This course covers Algebra, Geometry, and Trigonometry and gives students the tools needed to be successful in technical courses at Lake Superior College. (Prerequisites: MATH0450 or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1532 Technical Math II**3 credits (F/S)**

This course is a continuation of Technical Mathematics I incorporating higher level problems, focusing on engineering applications. (Prerequisites: MATH1531) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH1535 Applied Geometry for Technicians**2 credits (S)**

This course covers applied geometry concepts as they relate to the design and manufacturing of machine parts. (Prerequisites: MATH1531) (2 hrs lec/0 hrs lab/0 hrs OJT)

MATH1733 Advanced Tech Math**5 credits (Arr)**

This course is designed to provide students with the mathematical skills needed for success in technical programs. A thorough presentation of Algebra, Geometry, and Trigonometry is included with applications. The concepts and relationships are presented at an accelerated pace. (Prerequisites: MATH0450 or equivalent) (5 hrs lec/0 hrs lab/0 hrs OJT)

MATH2204 Calculus I**5 credits (F)**

The first course in single variable calculus. Topics include limits, continuity, fundamentals of differentiation, differentiation of trigonometric functions, application of derivatives, indefinite and definite integrals, calculus of exponential and logarithmic functions, calculus of trigonometric and inverse trigonometric functions, and hyperbolic functions. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning (Prerequisites: MATH1100, MATH1130, and MATH1150) (5 hrs lec/0 hrs lab/0 hrs OJT)

MATH2205 Calculus II**5 credits (S)**

The second course in single variable calculus. Topics include techniques of integration, applications of integration, indeterminate forms, improper integral, infinite series, analytic geometry, polar coordinates, and parametric equations. MTC goal areas: (2) Critical Thinking, (4) Mathematical/Logical Reasoning. (Prerequisites: MATH2204 or equivalent) (5 hrs lec/0 hrs lab/0 hrs OJT)

MATH2206 Multi-Variable Calculus**4 credits (Arr)**

This course covers Calculus of vector-valued functions of two or more variables. Topics include line integrals, surface integrals, Green's Theorem, Stokes' Theorem and the Divergence Theorems. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH2205 or equivalent) (4 hrs lec/0 hrs lab/0 hrs OJT)

MATH2215 Introduction to Linear Algebra**3 credits (Arr)**

This introductory course in linear algebra focuses on linear systems, linear transformations, matrices, vectors, determinants, linear dependence and independence, dimension and rank, and an introduction to vector spaces. MTC goal areas: (2) Critical Thinking and (4) Mathematical/Logical Reasoning. (Prerequisites: MATH2204 or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MATH2220 Differential Equations**4 credits (F)**

This course covers introduction to matrix algebra, eigen values, first and second order differential equations, higher order differential equations, Laplace transforms, systems of differential equations, numerical methods, and mathematical models. MTC goal area: (4) Mathematical/Logical Reasoning (Prerequisites: MATH2205) (4 hrs lec/0 hrs lab/0 hrs OJT)

MATH2999 Special Topics in Math**1-3 credits (I)**

Study of special topics in math. Special course topics will be announced in the class schedule.

Multi-Cultural Studies**MCS2020 Multi-Cultural Studies/Community Service****2 credits (F/S)**

Tutoring and mentoring experience for students interested in community service. Students will gain valuable experience in elementary/secondary schools and community sites tutoring/mentoring students of color. A weekly seminar for reflection and learning is required. (Prerequisites: Instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

MCS2301 Study Abroad: Travels in Europe**1-3 credits (S)**

This course is a study abroad experience with a concentration on the history, religion, and culture of selected European countries through visits to historical sites, art centers, churches and villages. The classroom portion, prior to departure, provides a core foundation on the dynamics of Intercultural Communication and also includes research, study, lecture, and classroom discussion. The travel segment which follows includes lectures by native guides who provide the background necessary to enable students to envision centuries of history and ancient civilizations. The guides provide an insider's look at the history, cultural trends and unique stories of a locale, and will establish a frame of reference for the class research and the travel experience. MTC goal areas: (2) Critical Thinking, (7) Human Diversity, and (8) Global Perspective. (Prerequisites:   and at least 18 years of age. See instructor regarding selection criteria) (1-3 hrs lec/0 hrs lab/0 hrs OJT)

MCS2999 Special Topics in Multicultural Studies
1-3 credits (I)
Study of special topics in multicultural studies. Special course topics will be announced in the class schedule.

Medical Assistant

MEDA1400 Medical Assistant Clinical Procedures I
2 credits (S)
This course introduces the Medical Assistant student to clinical client care concepts and skills used in the medical office setting. This course includes the study of the role of the medical assistant, client developmental stages, body mechanics, safe client handling and positioning, instrument sterilization, introduction to pharmacology, vital signs, aseptic technique and obtaining a medical history. (Prerequisites: BIOL1000, ALTH1410, MLTN1402 or instructor consent) (1 hr lec/2 hrs lab/0 hrs OJT)

MEDA1402 Medical Assistant Clinical Procedures II
4 credits (S)
This course builds on skills introduced in Medical Assistant Clinical Procedures I and includes pharmacology, nutrition, electrocardiography, minor surgical procedures and assisting physicians with physical examinations of adults and children. This course prepares students for clinical internships in the areas of assisting and professionalism. (Prerequisites: MEDA1400) (2 hrs lec/4 hrs lab/0 hrs OJT)

MEDA1405 Medical Assistant Administrative Procedures
3 credits (S)
This course introduces the student to the administrative skills routinely performed by the medical assistant in an ambulatory care setting. Students will cover skills in the areas of clerical functions, basic bookkeeping, special accounting entries, basic office transcription, and insurance claims. (Prerequisites: ADSC1715 or consent of instructor) (2 hrs lec/2 hrs lab/0 hrs OJT)

MEDA2417 Medical Assistant Internship **4 credits (F)**
This course provides the opportunity for the student to apply the knowledge, skills and attitudes learned throughout the Medical Assistant Program in a medical clinic setting. (Prerequisites: Successful completion of all program academic course work, completed medical history and physical, current immunizations and background check) (0 hrs lec/0 hrs lab/12 hrs OJT)

MEDA2999 Special Topics in Medical Assistant
1-3 credits (I)
Study of special topics in medical assistant. Special course topics will be announced in the class schedule.

Sales and Marketing

MKTG1001, 1002, 1003, and 1004 Leadership Development
1 credit (F/S)
These courses are designed to provide the student with "hands-on" experience in self-development through undertaking active leadership roles, observing others in leadership situations, and participating in service learning activities. Four courses, one each semester, are offered. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MKTG1411 Sales Techniques and Applications
4 credits (F)
This course is designed to provide the student with an overview of basic selling techniques and the opportunity to apply these techniques through role-play presentations. (Prerequisites: None) (3 hrs lec/2 hrs lab/0 hrs OJT)

MKTG1421 Principles of Marketing **3 credits (F/S)**
This course is designed to provide the student with an overview of basic marketing principles and practices, centering on the components of the marketing mix and the contribution each component makes toward the overall marketing effort of large and small businesses and organizations. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

MKTG1431 Marketing Financial Techniques
3 credits (S)
This course presents the student with basic business computation skills especially as they relate to marketing. (Prerequisites: MATH0450) (1 hr lec/4 hrs lab/0 hrs OJT)

MKTG1512 Consultative and Negotiation Selling Techniques
3 credits (S)
This course is designed to provide the student with advanced selling techniques including consultative and negotiation strategies. Students will have the opportunity to apply these techniques through role-play presentations. (Prerequisites: MKTG1411 or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

MKTG1520 Introduction to Internet Marketing
3 credits (S)
This course is intended to give an overview of the principles and techniques, employed in Internet marketing efforts of both large and small organizations toward both business to business clients and retail consumers. (Prerequisites: MKTG1421 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MKTG2422 Marketing Applications **3 credits (S)**
This course will address the application of various marketing principles through the analysis of the marketing efforts of an organization and the creation of a marketing plan. (Prerequisites: MKTG1421) (2 hrs lec/2 hrs lab/0 hrs OJT)

MKTG2626 Retail Principles and Management
3 credits (F)
This course is designed to give students an overview of the variety of functions found within retail outlets and the management of these functions. Topics include current retailing terminology, present practices in retailing and retail management, and future trends in retailing. (Prerequisites: MKTG1431) (3 hrs lec/0 hrs lab/0 hrs OJT)

MKTG2653 Sales Management **3 credits (F)**
This course is designed to provide the student with an overview of sales management techniques, principles, and trends. (Prerequisites: MKTG1411 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

MKTG2760 Advertising/Sales Promotion **3 credits (S)**
This course covers the fundamentals of advertising and sales promotion, the types of promotion tools available, and effective use of those tools. The course focuses on current advertising, use of media, and some of their creative aspects. (Prerequisites: MKTG1421 or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

MKTG2770 Principles of Management and Supervision
3 credits (S)

This course is designed to provide the student with an overview of basic and current management principles and practices. The course addresses managerial functions ranging from front-line supervisor positions to upper management levels. Trends in quality orientation, team building, and leadership are also included. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

MKTG2797 Sales and Marketing Internship
4 credits (F/S)

This course is intended to give students a "hands-on" experience in a marketing position that approximates their employment objective. (Prerequisites: 2.0 GPA and instructor's consent) (0 hrs lec/0 hrs lab/12 hrs OJT)

MKTG2999 Special Topics in Sales and Marketing
1-3 credits (I)

Study of special topics in sales and marketing. Special course topics will be announced in the class schedule.

Machine Tool Careers

MTCC1400 Blue Print Reading I **2 credits (F/S)**

This course covers basic blueprint reading principles. Topics included are lines, views, one and two view drawings, scaling, dimensioning, tolerancing, symbols, and sketching. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

MTCC1405 Professional Development **1 credit (F/S)**

This course covers topics that build awareness of issues important to Machine Trade Industry. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCC1410 Machine Shop Safety & Power Saws
1 credit (F/S)

This course covers safety procedures and hazards in a machine trade and the use of power saws. Topics include use of safety glasses and safety procedures for all machine tools. Basic use of all saws and different blades. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

MTCC1420 Bench Work, Math, & Measurement
1 credit (F/S)

This course covers applied mathematical calculation dealing with measurement and gauging tools, basic, layout, and bench work using hand tools. Topics include safety, hand tool identification, use of hand tools, micrometers, depth gauges, indicator, and gauge blocks. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

MTCC1430 Basic Engine Lathes I
3 credits (F/S)

This course covers basic lathe operation in a laboratory setting. Topics include safety, turning, facing, parting, knurling, threading, boring, and tool sharpening. (Prerequisites: MTCC1410) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC1440 Vertical Milling Machines I **3 credits (F/S)**

This course covers the basic principles of vertical milling machine operations, including safety, set up, selection of tooling, and use of milling attachments. (Prerequisites: None) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC1450 Engine Lathe II **3 credits (F/S)**

This course covers advanced lathe operation in a laboratory setting. Topics include using soft jaws, drilling, tapping, reaming, acme threading, carbide tool sharpening, turning, and boring. (Prerequisites: MTCC1410 and MTCC1430) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC1460 Blueprint Reading II **2 credits (S)**

This course covers advanced blueprint reading. Welding, geometric tolerancing and dimensioning (gd&t) are covered. (Prerequisites: MTCC1400) (2 hrs lec/0 hrs lab/0 hrs OJT)

MTCC1470 Industrial Machinery's Handbook
1 credit (F)

This course covers the use of the Industrial Machinery's Handbook. Machine trade problems that can be solved by using the handbook will be given. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCC1500 Horizontal Milling Machines **1 credit (F/S)**

This course covers the principle of horizontal milling machine operation. Topics included will be safety, set up, tool selection, speed and feed, and the use of milling attachment. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/2 hrs lab/0 hrs OJT)

MTCC1505 Surface Grinder I **2 credits (F/S)**

This course covers surface grinding for squareness, flatness, and other grinding operations. Grinding wheel selection, dressing wheels, set ups, and safety aspect will be covered. (Prerequisites: MTCC1410) (0 hrs lec/4 hrs lab/0 hrs OJT)

MTCC1510 Heat Treating **1 credit (S)**

This course covers heat treating concepts, procedures, and methods with hands-on experiences performing various heat treating procedures. Machineability and identification of ferrous and non-ferrous materials is covered with hands-on experiences machining various materials. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCC1520 Cylindrical Grinding **1 credit (F/S)**

This course covers the basic cylindrical grinding principles. Topics included are safety, set up, grinding wheels, and operating the grinder. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/2 hrs lab/0 hrs OJT)

MTCC2400 Vertical Milling Machines II
3 credits (F/S)

This course covers advanced milling machines operations. Topics included are safety, selection of tooling, and advanced use of attachments and set ups. (Prerequisites: MTCC1440) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2410 Basic CAD **2 credits (F/S)**

This course covers basic CAD principles of Cadkey. Topics included are keyboarding, 2D and 3D drawings, save drawings to A and C drives, and plotting. (Prerequisites: MTCC1400) (0 hrs lec/4 hrs lab/0 hrs OJT)

MTCC2420 Handscrew Machine **1 credit (F/S)**

This course covers production turning on a Handscrew Machine. Topics include the use of carbide tooling, drill, tapes, knurling, facing, and cutoff tools. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/2 hrs lab/0 hrs OJT)

MTCC2430 Inspection & Geometric Tolerancing 3 credits (F/S)

This course focuses on the use of inspection equipment and checking parts with that equipment, geometric tolerancing and dimensioning (gd&t) is covered and is a certified course. Statistical process control (spc) is also covered. (Prerequisites: MTCC1420) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2440 CNC Basic Programming 1 credit (F/S)

This course focuses on both turning and machining center programming for Computer Numerical Control (CNC). Basic CNC concepts will be covered in depth. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCC2450 Estimating & Processing 1 credit (F/S)

This course covers estimating the cost of manufacturing parts. Topics include material, overhead, wages, and machine cost. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCC2460 Tool & Cutter Grinding 2 credits (F/S)

This course covers tool and cutter grinding operations. Sharpening of two and four end mills, horizontal cutters, and special cutters will be covered. (Prerequisites: None) (0 hrs/4 hrs lab/0 hrs OJT)

MTCC2470 Basic CAM 3 credits (F/S)

This course covers Computer Aided Manufacturing (CAM), operation and programming. (Prerequisites: MTCC2410) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2500 CNC Mill (Conversational) 3 credits (F/S)

This course covers conversational and G code programming and operation of CNC milling machine. Topics covered are speed and feeds, tooling, programming, set up, and operation of CNC mill. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2510 CNC Turning/Slant 3 credits (F/S)

This course covers CNC programming, set up, and operation of a CNC turning center with Fanuc controller. Topics include speed and feeds, drilling, turning, facing, threading, and boring. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2530 Jig & Fixture Construction 2 credits (S)

This course covers basic principles of building fixtures or jigs from blueprints and drawing or parts. (Prerequisites: MTCC1410) (0 hrs lec/4 hrs lab/0 hrs OJT)

MTCC2540 CNC Machine Center (3 Axis) 3 credits (F/S)

This course covers advanced CNC milling operations and programming in a lab setting. Topics covered include advanced programming techniques, with auto tool changing. (Prerequisites: MTCC2400) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2550 CNC Turning/Kit 3 credits (F/S)

This course covers CNC programming, set up, and operation of a gang type turning center. Topics include speed and feeds drilling, turning, facing, threading, and boring with a gang type tool holder. (Prerequisites: MTCC1400 and MTCC1410) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2560 Advanced CNC Mill (4th Axis) 4 credits (F/S)

This course covers advanced operation and programming of a vertical four axis machining center. Topics include speed and feeds, milling, drilling, tapping, and programming in one to four axes in vertical setting. (Prerequisites: MTCC1400, MTCC1410) (0 hrs lec, 8 hrs lab, 0 hrs OJT)

MTCC2570 Wire EDM 3 credits (F)

This course covers the set-up, programming, and operation of the Wire EDM. (Prerequisites: MTCC2520) (0 hrs lec/6 hrs lab/0 hrs OJT)

MTCC2579 Special Topics 1-6 credits (F/S)

This course covers special or advanced topics. Topics are arranged with an instructor specializing in that area. The machine or lab must have space available. Regular or full-time students have priority on classes. (Prerequisites: Must have basic knowledge of the area of study)

MTCC2999 Special Topics in Machine Tool Careers 1-3 credits (I)

Study of special topics in machine tool careers. Special course topics will be announced in the class schedule.

MTCM2400Mold Construction 1 credit (F)

This course presents the process required to design and building a complete mold in a classroom setting. Plastic types and characteristics, metal alloy casting types and characteristics, design principles, and molding methods are covered. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MTCM2410Mold Building I 4 credits (F/S)

This course begins construction of a plastic injection mold. Roughing out the A & B plates and the ejection system will be completed during this course. (Prerequisites: MTCM2400) (0 hrs lec/8 hrs lab/0 hrs OJT)

MTCM2420Milling Machines III & Opticdress 2 credits (F/S)

This course covers the set up and operation of the cross slide rotary table on a vertical mill and milling a blind pocket. Also, setting up and operating the optic dresser to dress angles and radius on the surface grinder. (Prerequisites: MTCC2400) (0 hrs lec/4 hrs lab/0 hrs OJT)

MTCM2430Mold Building II 5 credits (F/S)

This course covers the advanced construction of the cavity and core plates for a plastic injection mold. EDM, CNCs, mill lathes, and grinders are used to complete the mold set. Test of the mold will be completed by running the mold in an injection press. (Prerequisites: MTCM2410) (0 hrs lec/10 hrs lab/0 hrs OJT)

Massage Therapy

MTP1000 Massage Therapy Human Anatomy and Physiology 3 credits (F)

The study of the structure and function of human organ systems as they apply to the service of massage therapy. This course is presented simultaneously with MTP1010 as a complement to the hands on learning in MTP1010. All organ systems are covered with special emphasis on the muscular, skeletal, lymphatic and integumentary systems. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

MTP1002 Massage Therapy Kinesiology 1 credits (F)

This course covers the basic structure and function of the joints, muscles, nerves, and other connective tissues that cause movement and control posture in the human body as they apply to massage therapy. General physics principles including levers, planes and axis, are covered. The interactions of the muscle/bone connections and the forces needed to produce movement are taught. Postural analysis is integrated into this course. Therapeutic massage interventions are discussed, demonstrated and practiced. (Prerequisites:   Acceptance into Massage Therapist program) (1 hr lec/0 hrs lab/0 hrs OJT)

MTP1004 Massage Therapy Pathology 2 credits (F)

This course covers the basic pathophysiology of the major body systems and organs as they apply to massage therapy. Mental health is also discussed in relationship to appropriate care by the massage therapist. Universal precautions are covered. The role of a massage therapist involved with the care of clients who may have common diseases are covered. Systemic contraindications, local contraindications and cautions that influence massage are covered. (Prerequisites:   Acceptance into Massage Therapist program) (2 hrs lec/0 hrs lab/0 hrs OJT)

MTP1006 Issues in Massage Therapy Practice 2 credits (F)

Professional behavior and standards, ethical and legal practice as it applies to massage therapy. How to manage time and communicate professionally. Appropriate responses to client behaviors. Didactic and role playing, and documentation are covered. Licensure, national certification, professional organizations, malpractice insurance, sexuality, cultural diversity, and the hospice concept are taught. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING] Acceptance into Massage Therapist program) (2 hrs lec/0 hrs lab/0 hrs OJT)

MTP1008 Massage Therapy Procedures I 2 credits (F)

Client positioning, with the use of the bolsters, pillows, and special tilt, cut-out and firm massage tables. Use of hot packs (superficial heat) and cold packs or ice (cryotherapy). The ability to make professional judgments about the application of the appropriate modality for each client situation. (Prerequisites:   Acceptance into Massage Therapist program) (1 hr lec/2 hrs lab/0 hours OJT)

MTP1010 Full Body Stress Reduction Massage 4 credits (F)

Massage techniques are applied sequentially to the back, neck and head, posterior legs, anterior torso, face, and anterior legs. Pathology of each area is discussed including function, positioning, appropriate strokes, ethical situations, and the appropriate draping. Concurrently the students are gradually led to the application of professionalism, legal issues, and documentation as they apply to stress reduction massage. (Prerequisites:   Acceptance into Massage Therapist program) (2 hr lec/4 hrs lab/0 hrs OJT)

MTP1012 Functional Somatic Release 2 credits (S)

The relationship of the mind's control of muscles and the resulting posture are taught. Instruction in somatic releases for each body section is practiced. The importance of client education is stressed with the responsibility of the client to participate in their well being. Postural analysis is taught. Students learn definitions, identification and thera-

peutic interventions of the three major muscular reflexes at stress in humans as described by Dr. Thomas Hanna. Distinguishing chronic muscular pain and postural distortions as caused by structural imbalances vs. functional imbalances is explored. (Prerequisites:   Acceptance into Massage Therapist program) (1 hr lec/2 hrs lab/0 hrs OJT)

MTP1014 Deep Tissue and Neuromuscular Massage 3 credits (S)

The theory, techniques and applications of deep tissue therapy are taught including deep work on the muscles and fascia, methods of tension release, and the injury repair process. Techniques to release adhesions, restore circulation, and rehydrate dry, fibrous tissues are covered. Causes of stress are discussed and their relationship to chronic tension as related to Neuromuscular Therapy (NMT). The stress-tension-pain cycle is taught. Deep Tissue (DT) therapy employs friction, pressure and vigorous cross fiber stroking. Expanded and more detailed interview and assessment techniques are reviewed. Factors that influence health vs. illness are taught. The Dysfunction Theory and formation of trigger points with review of muscle cell activity is taught. Joint mobilization and stretching are taught. Discerning the appropriateness for DT/NMT is taught. Students learn in-depth interview skills. Working with pressure scales and the importance of client/therapist communication is covered. Development of treatment plans is taught, and how and when to make a referral. (Prerequisites:   Acceptance into Massage Therapist program) (1 hr lec/4 hrs lab/0 hrs OJT)

MTP1016 Special Populations Massage 4 credits (S)

This course covers Swedish Massage, Chair Massage, Mother Massage, Infant Massage, Geriatric (Senior) Massage, and Lymphatic Drainage Massage. The evaluation of special populations is taught. Special massage skills involving positioning, strokes, pathology, documentation, and contraindications and cautions are included. (Prerequisites:   Acceptance into Massage Therapist program) (2 hr lec/4 hrs lab/0 hrs OJT)

MTP1018 Awareness and Injury Protection I 3 credits (S)

This course teaches the importance of self-awareness and self-care. Body mechanics are emphasized. Yoga, Tai Chi, Somatic stretches and relaxation techniques are taught. Discussions of stress causing events are discussed. Students have the opportunity to gain self-knowledge and self-awareness both physically and mentally. This course aims to develop student maturity and self-understanding. (Prerequisites:   Acceptance into Massage Therapist program) (2 hrs lec/2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

MTP1022 Massage Therapy Business: Start-up and Management 3 credits (S)

This course covers the principles of a massage therapy business start-up. Development of a business plan, a logo, business cards and brochures is done. The importance of marketing is taught. The statistics of small business successes are taught. The importance of keeping records is covered. The differences between contract working, being an employee and ownership are compared. Topics covered include: goal setting, strategic planning, self management, time management, barriers to success, image, financing, location, setting fees, choosing advisors, retirement planning, policies, marketing and client retention as they relate to massage therapy. (Prerequisites:  Acceptance into Massage Therapist program) (3 hrs lec/0 hrs lab/0 hrs OJT)

MTP2999 Special Topics in Massage Therapist 1-3 credits (I)

Study of special topics in massage therapist. Special course topics will be announced in the class schedule.

Music

MUSC1105 America's Music 3 credits (I)

This course features music by American composers from the Revolutionary War to today. Music genres that will be studied include symphonic, Broadway, folk, jazz and country-western. This class is designed as a fine arts offering and does not require a background in music. Students are expected to attend one music event. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

MUSC1110 Appreciation of Music 3 credits (F)

This course deals with the techniques of listening and of understanding serious music through the study of over 400 years of classical music. It includes the styles of various eras, their composers, and cultural background. This survey course is designed as a fine arts offering and does not require a background in music. Students are expected to attend one music event. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

MUSC1120 Fundamentals of Music 3 credits (S)

This course is directed toward anyone interested in learning how to read music. Topics for study will include: the musical staff, melody writing, major and minor scale construction, intervals and basic chords, rhythmic notation, and elementary keyboard and recorder skills. From the prospective elementary education major to the adult interested in learning how to play the piano this course is designed for you. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

MUSC1160 Applied Music 1 credit (F/S)

Applied Music courses provide students with private lessons on a musical instrument for thirty minutes each week. Students develop their knowledge of the instrument, their ability to read music, and their attention to technique. This course may be taken for a total of two credits. A personal property fee will be charged in addition to tuition. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (.5 hr lec/0 hrs lab/0 hrs OJT)

MUSC1170 Applied Music-Intensive Study 2 credits (F/S)

This intensive applied music course provides students with private lessons on a musical instrument for sixty minutes each week. Students develop their knowledge of the instrument, their ability to read music, and their attention to technique. This course may be taken for a total of four credits. A personal property fee will be charge in addition to tuition. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

MUSC2999 Special Topics in Music 1-3 credits (I)

Study of special topics in music. Special course topics will be announced in the class schedule.

Nursing

Nursing Assistant

NUNA1400 Introduction to Nursing/Long Term Care 3 credits (F/S)

This course introduces concepts of basic human needs, health/illness continuum and basic nursing skills. It is designed to prepare the student for entry level as a Nursing Assistant and serves as an introduction to the nursing sequence for students who choose to advance in the nursing profession. A physical exam must be completed before registration, Forms are available in Enrollment Services and on the web site. This course meets the Federal OBRA and Minnesota Department of Health requirements. Successful completion of this course prepares students to take the Minnesota Nursing Assistant Test Out. (Prerequisites: None) (1 hr lec/4 hrs lab/0 hrs OJT)

NUNA1410 Home Health 1 credit (F/S)

This course is designed to instruct students to apply basic nursing principles in caring for the client at home. The course continues from the 84 hour Long-term Nursing Assistant course. Students are prepared for entry-level employment. Successful completion of the State NA Test Out is required for a Home Health Certificate. (Prerequisites: NUNA1400 or concurrent enrollment) (1 hr lec/0 hrs lab/0 hrs OJT)

NUNA2999 Special Topics in Nursing Assistant 1-3 credits (I)

Study of special topics in nursing assistant. Special course topics will be announced in the class schedule.

Nursing - Practical (Courses are reserved for students who receive acceptance into the Practical Nursing program)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

NUPN1400 Nursing Trends I **1 credit (F/S)**
This course introduces the student to the history of nursing, health care systems, basic communication, nursing process, legal-ethical issues, patient teaching and cultural diversity in nursing. Fee: Nurse Entrance Test. (Prerequisites: Semester I courses on program planner. Priority will be given to students who register in Semester II. Instructor's consent) (1 hr lec/0 hrs lab/0 hrs OJT)

NUPN1410 Adult Nursing I **4 credits (F/S)**
This course covers nursing care of the patient experiencing disorders in the following systems: immune, integument, neoplasm, musculoskeletal, endocrine (diabetes only), reproductive, urinary, gastro-intestinal and accessory. The content focuses on the pathophysiology, medical treatment and nursing management of common disorders in these systems. Related pharmacology and nutritional concepts are integrated. (Prerequisites: Semester I courses NUNA1400, NUPN1400 & NUPN1430 or concurrent enrollment) (4 hrs lec/0 hrs lab/0 hrs OJT)

NUPN1420 PN Technical Skills I **3 credits (F/S)**
This course includes both a lecture and laboratory component. The lecture portion covers the patient's medical record, documentation, microbiology, pre and post operative nursing care, and the body's response to wound healing. The laboratory portion will facilitate student demonstrations, practice and test outs of designated basic nursing skills. (Prerequisites: Semester I courses NUNA1400) (2 hrs lec/2 hrs lab/0 hrs OJT)

NUPN1430 Medication Concepts **3 credits (F/S)**
This course covers techniques of administering medications and the use of medication reference materials. Math skills, terminology and abbreviations needed to interpret medication orders are stressed. This course includes medication theory and administration of gastrointestinal, topical, and injectable medications including care of the patient with an IV. Students may not progress to Semester III clinicals without successfully completing this course. (Prerequisites: Completion of MATH1420, or equivalent or instructor's consent, NUNA1400) (2 hrs lec/2 hrs lab/0 hrs OJT)

NUPN1440 Psychosocial Nursing **2 credits (F/S)**
This course covers therapeutic communication throughout the life span, family structure, domestic violence, stress, coping and defensive mechanisms, and addictive behavior. The mental health component covers Manic Depressive Disorder, Schizophrenia, Obsessive Compulsive Disorder, suicide, and grieving. The course focuses on the Practical Nurse's implementation of therapeutic communication techniques and the detection, nursing management, and medical treatment of the mental health disorders and conditions. (Prerequisites: NUNA1400 or concurrent Semester II courses) (2 hrs lec/0 hrs lab/0 hrs OJT)

NUPN1458 Practical Nursing Clinical I **1 credit (F/S)**
This course covers clinical application of nursing care principles for the beginning student making the transition from the nursing assistant to the Practical Nurse role. The course focuses on care and skills learned in theory and lab courses. The nursing process will be used in caring for a patient in a stable situation. Safety, professionalism, and dependability are emphasized. Fee: liability insurance. (Prerequisites: NUNA1400, NUPN1410, NUPN1420 & NUPN1430 or concurrent enrollment, current First Aid and CPR, and physical exam) (0 hrs lec/2 hrs lab/0 hrs OJT)

NUPN1468 Practical Nursing Clinical II **3 credits (F/S)**
This is the first two-day clinical course in a series of four courses. It expands on basic hands-on clinical concepts from NUPN1458 in the areas of skill development, application of theory base to clinical situations, and professionalism. Improved efficiency and organizational skills in delivering nursing care will be developed. (Prerequisites: NUPN1458 or concurrent enrollment, and current First Aid and CPR, Mantoux, and physical exam) (0 hrs lec/6 hrs lab/0 hrs OJT)

NUPN1475 PN Skills Review **1 credit (F/S)**
This course includes a review of medication administration, sterile technique, and charting. This course is required for part-time students or the student returning to the clinical setting after being absent for one or more semesters. (Prerequisites: NUPN1420, NUPN1430 and/or NUPN1458, NUPN1468; instructor's consent) (0 hrs lec/2 hrs lab/0 hrs OJT)

NUPN1478 Refresher Clinical **2 credits (F/S)**
This course is for the student who has been away from the clinical site for one semester or more, or for the student who requests additional clinical time (one time only). Fee: liability insurance. (Prerequisites: NUPN1475 and completion of one or more clinical rotations; instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

NUPN1479 PN Special Topics **1-4 credits (F/S)**
This course is designed for a student transferring from a nursing program to LSC PN program or returning to this program in order complete requirements for a current Practical Nursing course. The student must have earned credit (grade "C" or better) in a previous PN course which does not equate to current PN course(s). A signed contract outlining content, skill demonstration or testing, and/or written testing requirements will be designed for each student. This course may be taken for up to four credits (maximum of 2 for theory and 2 for lab) per semester depending on content needed. (Prerequisites: Completion of Semester I and prerequisites for Semester II courses [as identified on the Practical Nursing program planner] or instructor's consent)

NUPN1500 Nursing Trends II **1 credit (F/S)**
This course covers PN licensure, role of the Board of Nursing, the Nurse Practice Act, the INEC (Itasca Nursing Education Consortium), as well as laws, trends, and issues within the health care delivery system with emphasis on the role of the Practical Nurse. (Prerequisites: Concurrent enrollment in NUPN1538, NUPN1558, and NUPN1568) (1 hr lec/0 hrs lab/0 hrs OJT)

NUPN1510 Adult Nursing II **4 credits (F/S)**
This course covers nursing care of the patient experiencing disorders in the following systems: respiratory, blood/lymphatic, cardiac, peripheral vascular, eye/ear, nervous, and endocrine (excluding diabetes). The content focuses on the pathophysiology, medical treatment and nursing management of common disorders in the above systems. Related pharmacology and nutritional concepts are integrated. (Prerequisites: NUPN1410, NUPN1430) (4 hrs lec/0 hrs lab/0 hrs OJT)

NUPN1520 PN Technical Skills II 1 credit (F/S)
In this laboratory course, the student will perform designated skills that have been learned in NUPN1410, NUPN1510 and/or NUPN1530. (Prerequisites: NUPN1420, NUPN1510, NUPN1520, or concurrent enrollment) (0 hrs lec/2 hrs lab/0 hrs OJT)

NUPN1531 Maternal/Child Nursing 3 credits (F/S)
This course covers the normal process of pregnancy, labor and delivery, and the care of the mother and baby after birth. An introduction to the complications of each area are covered. The pediatric portion covers the hospitalized child, communicable diseases and immunizations, along with common childhood disorders or illnesses, and child abuse. (Prerequisites: NUPN1400, NUPN1410, NUPN1420, NUPN1430, NUPN1440) (3 hrs lec/0 hrs lab/0 hrs OJT)

NUPN1538 Maternal/Child Clinical 2 credits (F/S)
This course covers clinical application in caring for the stable obstetric and pediatric patient. The obstetrical component covers observation and assistance for the patient in labor and delivery, and providing care for the postpartum patient and newborn infant. The pediatric portion covers the care of the well/ill child, ages newborn to 17. The student will make nursing care adaptations related to the family unit. Safety, professionalism, and dependability are emphasized. (Prerequisites: NUPN1468, NUPN1510, NUPN1531 or concurrent enrollment; current CPR, Mantoux, and physical exam) (0 hrs lec/4 hrs lab/0 hrs OJT)

NUPN1540 Gerontology in Nursing 2 credits (F/S)
This course is designed to present nurses with information and learning tools to adapt nursing skills to the aging population receiving health care in a variety of settings. Leadership skills are introduced to assist caregivers in long-term care facilities at the Practical Nurse level. (Prerequisites: Concurrent enrollment in NUPN1538, NUPN1558, and NUPN1568) (2 hrs lec/0 hrs lab/0 hrs OJT)

NUPN1558 Practical Nursing Clinical III 2 credits (F/S)
This course covers clinical application of common medical/surgical conditions using the nursing process. The student will make nursing care adaptations related to the lifespan. Professionalism and dependability are emphasized. Nursing care will be delivered more timely and accurately, while demonstrating more depth and understanding of the nursing process and theory. (Prerequisites: NUPN1468, NUPN1510, NUPN1520 or concurrent enrollment; current First Aid and CPR, Mantoux, and physical exam) (0 hrs lec/4 hrs lab/0 hrs OJT)

NUPN1568 Practical Nursing Clinical IV 2 credits (F/S)
This course covers increased complexity of common medical/surgical conditions using the nursing process. The student will make nursing care adaptations related to the lifespan. Professionalism and dependability are emphasized. Nursing care will be delivered timely and accurately, while demonstrating understanding of integration of multiple diagnoses while delivering nursing care. (Prerequisites: NUPN1558 or concurrent enrollment; current First Aid and CPR, Mantoux, and physical exam) (0 hrs lec/4 hrs lab/0 hrs OJT)

NUPN1608 Clinical Synthesis 2 credits (S)
This course consists of concentrated clinical experience in which the student applies the knowledge, skills and attitudes learned throughout the program. The student will demonstrate the ability to function as an entry-level Practical Nurse. Fee: LPN Comprehensive Exam. (Prerequisites: Successful completion of all PN program courses; current First Aid and CPR, Mantoux, and physical exam) (0 hrs lec/4 hrs lab/0 hrs OJT)

NUPN2999 Special Topics in Practical Nursing 1-3 credits (I)
Study of special topics in practical nursing. Special course topics will be announced in the class schedule.

Nursing - Associate Degree

NURS2510 Advanced Nursing Concepts 3 credits (F)
This nursing course is designed to build on concepts, knowledge, and skills introduced in the Practical Nursing Program. This course includes advanced nursing skills necessary for the LPN to make the necessary transition to the RN role. The conceptual model based on Roy's Adaptation Model is presented emphasizing concepts of coping and adaptive responses, health, self-awareness and hemostasis. A major focus is on the nursing process identifying the person as an adaptive system as the nurse moves through the steps of the nursing process. Components of physical assessment are included. (Prerequisites: Admission to the Associate Degree Nursing Program) (2.5 hrs lec/1 hr lab/0 hrs OJT)

NURS2520 Adaptations Within the Family Unit-Pediatric Nursing 2 credits (F)
Emphasis is on the use of the nursing process and the development of nursing care plans to assist in the adaptive responses related to children and parents with high risk and more complex problems. The student is provided with the knowledge and skills required to assist the patient and family to select adaptive responses in meeting basic needs and developmental demands of the ill child in the acute care setting. The acute and chronic disease conditions common to children are discussed. (Prerequisites: Concurrent enrollment and NURS2510) (1 hr lec/2 hrs lab/0 hrs OJT)

NURS2530 Adaptations Within the Family Unit-Obstetrical Nursing 2 credits (F)
The two distinct phases of the maternal role, childbearing and childbirth are emphasized. In the childbearing and childbirth roles emphasis is on the use of the nursing process and the development of nursing care plans to assist in the adaptive responses to interruptions relative to obstetric patients with high risk or more complex problems. It includes care of the mother and newborn emphasizing family interaction role adaptation. (Prerequisites: Taught concurrently with NURS2510) (1 hr lec/2 hrs lab/0 hrs OJT)

NURS2640 Adaptations to Acute Health Interruptions-Cardiopulmonary Nursing
3 credits (F/S)

The nursing courses for the second year are designed to build on concepts, knowledge, and skills introduced in the Practical Nursing Program. In the cardiopulmonary course, emphasis is on the use of the nursing process and the development of nursing care plans to assist in adaptive responses to interruptions related to cardiovascular and respiratory diseases. Nursing actions are implemented to promote adaptations in patients demonstrating complex cardiovascular, respiratory, and hematological interruptions. Clinical experience is provided on past coronary, coronary, and intensive care units. (Prerequisites: CHEM1310 and successful completion of NURS2510) (1 hr lec/4 hrs lab/0 hrs OJT)

NURS2650 Adaptations to Acute Health Interruptions-Surgical Nursing
3 credits (F/S)

This nursing course is designed to build on concepts, knowledge and skills introduced the Practical Nursing Program. In the surgical component emphasis is on the use of the nursing process and the development of nursing care plans to assist in the adaptive responses to interruptions related to complex gastrointestinal, hepatic, biliary, pancreatic, renal, and neurological interruptions. (Prerequisites: Successful completion of NURS2510) (1 hr lec/4 hrs lab/0 hrs OJT)

NURS2710 Adaptations to Complex Health Interruptions-Medical Nursing
4 credits (S)

This nursing course for the second year is designed to build on concepts, knowledge, and skills introduced in the Practical Nursing Program. In the medical nursing course, physiological adaption involving fluids and electrolytes, endocrine functions, as well as nutrition, activity, rest, and protections as related to maladaptive responses to interruptions in skin and muscular problems. The course prepares the student to provide care to adults having acute and chronic health interruptions. Emphasis is on the development of nursing care plans to assist the adult patient with adaptive responses to complex health problems. (Prerequisites: Taught concurrently with NURS2730) (1 hr lec/6 hrs lab/0 hrs OJT)

NURS2720 Adaptation to Complex Health Interruptions-Mental Health Nursing
3 credits (S)

This nursing course is designed to build on concepts, knowledge, and skills introduced in the Practical Nursing Programs. In the mental health component, emphasis is on the use of the nursing process and the development of nursing care plans to assist in the adaptive responses to interruptions related to psychiatric diseases. Nursing actions are implemented to promote adaptations in the patients who demonstrate complex mental health disorders. Clinical experience is provided on the adolescent and adult mental health units. (Prerequisites: Taught concurrently with NURS2730) (1 hr lec/4 hrs lab/0 hrs OJT)

NURS2730 Adaptations to Associate Degree Nursing Role
2 credits (S)

The nursing courses for the second year are designed to build on concepts, knowledge, and skills introduced in the Practical Nursing Program. The course assists the student

to synthesize and integrate previous course offerings in the expected practice of the Associate Degree nursing graduate. The roles of the A.D. nurse, as a provider and manager of care for clients, teacher, communicator, and member within the nursing profession are identified and discussed. The student is also introduced to the role in community health. Emphasis is placed on identifying sources of referral, case findings, community assessment, discharge planning, family theory, and transculture nursing. (Prerequisites: Taught concurrently with NURS2720) (1.5 hrs lec/1 hr lab/0 hrs OJT)

NURS2732 Intensive Care Unit Internship
3 credits (F/S)

This nursing course is an elective for the Associate Degree nursing student. The course is designed to build on skills introduced in the practical nursing program and expose the student to the critical care environment. In the Intensive Care Unit Internship, emphasis is on the use of the nursing process and the development of nursing care plans to assist in adaptive responses within the critical care unit. Nursing actions are implemented to promote adaptations in patients who are critically ill. Clinical experience may be provided on the surgical intensive care unit, medical intensive care unit, coronary intensive care unit, neurological intensive care unit, and the emergency department, for the PACU. (Prerequisites: Associate Degree Nursing Student and CPR) (1 hr lec/4 hrs lab/0 hrs OJT)

NURS2999 Special Topics in Nursing **1-3 credits (I)**
Study of special topics in nursing. Special course topics will be announced in the class schedule.

Physical Education

PE1005 Karate **1 credit (F/S)**
This course is an introduction to the fundamentals, etiquette and philosophy of karate and the martial arts. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1006 Advanced Karate **1 credit (F/S)**
This course expands on the fundamentals of the martial arts with the introduction of advanced techniques including combination movements for fighting. (Prerequisites: PE1005) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1015 Tennis **1 credit (S)**
Instruction in the fundamental skills of stroking, serving, and scoring. Emphasis on rules, strategies, and etiquette of the game. Students provide their own racquet and balls. Meets at an off campus site. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1025 Golf **1 credit (S)**
A beginning level course emphasizing stroke fundamentals, equipment selection, rules of play as well as etiquette and safety. Practical experience on local courses and driving ranges. Students are encouraged to provide their own clubs. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

PE1030 Badminton 1 credit (S)
Basic skills, techniques, conditioning, strategy and rules of badminton. This is a beginning level course. Fee for racket purchase required. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1045 Bowling 1 credit (F/S)
A beginning level course teaching bowling fundamentals of approach, stance, delivery, scoring, and converting splits. Class is held off campus. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1050 Downhill Skiing 1 credit (S)
An introductory level course emphasizing fundamental downhill skiing techniques. Students in this course will learn how to obtain equipment from rental area, how to properly put on boots, skis and use of poles, how to use a basic tow, to descent a gentle slope under control and ride a chair lift. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1055 Soccer 1 credit (S)
Fundamental instruction in the rules, strategies, and techniques of soccer. Specific emphasis on the development and refinement of individual player skills as well as cardiovascular enhancement. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1060 Archery 1 credit (I)
Introduction to history, safety, etiquette, and skills of target archery. This is a beginning course. Meets off campus. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1065 Cross-Country Skiing 1 credit (S)
Introduction to history, etiquette, and skills of Nordic skiing. A personal property fee will be charged for equipment and trail rental fees. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1070 Volleyball 1 credit (F/S)
This course is an introduction to the basic skills, rules, and strategies of the game of volleyball. This is a beginning level course with emphasis on both individual and team skill development. Volleyball is one of the few team-oriented activities considered a lifetime sport. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1075 Canoeing 1 credit (S)
Fundamental instruction in the basic strokes of canoeing. Principles of water safety and rescue are emphasized. Students must provide their own Coast Guard approved life vest. A canoe rental fee may be charged. (Prerequisites: Successful completion of PE1420 or demonstrated swimming ability to instructor) (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1400 Summer Outdoor Activities 1 credit (S)
Introduction to the skills, techniques, safety and etiquette necessary for summer outdoor recreation. This course will briefly highlight the areas of canoeing, orienteering, camping and fishing skills, outdoor cooking, fire building, and challenge course. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1405 Winter Outdoor Activities 1 credit (S)
This course is an introduction to safety, etiquette, and skills necessary for winter outdoor recreational activities. This course will briefly introduce the students to areas of snowshoeing, orienteering, cross-country skiing, and winter naturalist/survival elements. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1410 Recreational Activities 1 credit (I)
A course intended to introduce students to a variety of unique and non-traditional recreational activities frequently overlooked in many educational curriculums. An equipment rental fee may be assessed in this course. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1420 Swimming I 1 credit (I)
For the beginner or non-swimmer. Students learn buoyancy, breath control, swimming strokes, and safety skills. Meets off campus. Includes A.R.C. Levels I-IV. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1421 Swimming II 1 credit (I)
An intermediate-level course for people with demonstrated swimming ability. Stroke refinement and advanced water skills. Includes A.R.C. levels V-VII. Course meets off campus. (Prerequisites: Successful completion of PE1420, or ability to swim 50 yards) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1430 Country-Western Line Dancing 1 credit (I)
This course will introduce the student to various popular country-western line dances. This is an alternative aerobic exercise method that promotes health and improves social interaction. (Prerequisites: The student must be physically able to perform country-western line dances. If students have any medical condition, they should consult their doctor to determine if this form of exercise is appropriate) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1435 Aerobics 1 credit (F/S)
This course is an introduction to a low intensity/impact level of exercise including rhythmic steps, and kicks. All standards and guidelines of proper exercise and fitness will be followed. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1440 Advanced Aerobics 1 credit (F/S)
This course follows new and innovative techniques of contemporary advanced aerobic exercise aimed to increase strength and cardiovascular conditioning. This is achieved through high impact exercises including rhythmic steps, jumps, arm work, abdominal work, leg and hip work, and kicks. The focus is on all major muscle groups for strengthening, aerobic work capacity, and toning. All standards and guidelines of proper exercise and fitness will be followed. (Prerequisites: None. A previous low-impact beginning level aerobics class is highly recommended) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1450 Weight Training 1 credit (F/S)
Fundamental skills of muscular resistance training in the weight room. Emphasis on exercise selection, equipment utilization, management of program variables, and personal safety. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1465 Fishing Skills 1 credit (S)
Instruction in freshwater fishing technique utilizing four basic methods: bait casting, fly casting, spin casting, and spinning. Students are encouraged to provide their own equipment and possess a valid fishing license. A personal property fee will be charged in addition to tuition. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1470 Beginning Yoga 1 credit (F/S)
A beginning level course following the innovative techniques of Hatha and Raja Yoga, intended to promote strength, endurance and flexibility, reduce stress, and induce an overall sense of well-being. (Prerequisites: None) (0 hrs lec/2 hrs lab/0 hrs OJT)

PE1570 Coaching and Officiating Volleyball 2 credits (I)
Course cover strategies for coaching power volleyball. Analysis of player skill development. Course also involves understanding game rules and officiating responsibilities and techniques. May involve some on-court activities. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

PE1600 Boundary Waters Experience 2 credits (S)
An opportunity to experience the pristine beauty of Northern Minnesota. Camping, canoeing, backpacking, and fishing skills are required. A personal property fee will be charged in addition to tuition. Students provide their own canoe, paddles, fishing equipment, camping gear, personal flotation devices, and transportation. (Prerequisites: Successful completion of the following courses or demonstrated proficiencies in PE1420, PE1075, and PE1465) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1605 Weight Control through Walking 2 credits (F/S)
Introduction to walking as a blueprint for weight control and a healthier lifestyle. Various fitness parameters are measured, both pre- and post-. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1610 Lifeguard Training 2 credits (S)
Knowledge and skills necessary to prevent and respond to aquatic emergencies. Successful completion of this course will meet American Red Cross Certification Standards. (Prerequisites: Minimum age 15 years. Ability to swim 500 yards [crawl, breaststroke and sidestroke], seven foot depth retrieve, and two-minute water tread) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1615 Lifetime Fitness 2 credits (F/S)
A course designed to provide for the individual fitness needs of students in various occupational and lifestyle pursuits. Cross-training and resistance techniques will be employed along with an assessment of various fitness-related components of good personal health. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1620 Essentials of Human Performance 3 credits (I)
Examines the physiological changes occurring as a direct result of applied physical movement. Major emphasis upon the principles of resistance training, conditioning, and the interplay of human body systems. (Prerequisites: BIOL1140, BIOL1140, HLTH1410, MATH1105 and PTA1460) (3 hrs lec/0 hrs lab/0 hrs OJT)

PE1625 Water Safety Instructor Training 2 credits (I)
Skills and knowledge necessary to train instructor candidates to teach various levels of American Red Cross swimming programs. Successful completion of this course will meet American Red Cross Certification Standards. Course conducted off campus. (Prerequisites: Minimum age 17 years. Basic life guarding or lifeguard training proficiency in addition to ARC Level VI Swimming Proficiency. Must pass Instructor Candidate Training Certificate [#3007]) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1630 Introduction to Firearms 2 credits (S)
A comprehensive training course in the practical application of various types of firearms. Emphasis on knowledge, safety, attitude, maintenance, and proper storage of all firearms. Successful completion of this course will lead to NRA basic pistol certification. Students may also use this course to apply for a Minnesota Hunter Education Certification. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

PE1635 Self-Defense for Life 2 credits (F/S)
A system of self-defense responses including awareness, assessment, action, and physical force in response to unwarranted aggression. (Prerequisites: None) (1 hr lec/2 hrs lab/0 hrs OJT)

PE1640 Organization and Administration of Wellness, Human Performance, and Sports 3 credits (F/S)
This course is designed to shape today's students into tomorrow's leaders in the fields of wellness, human performance and sport. Emphasis on administrative leadership roles in professional workforce fields. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PE1645 Boot Camp Basics 2 credits (F/S)
A very rigorous fitness-training course designed to familiarize students with certain career opportunities available to them in both military and governmental service agencies. Fundamentals of physical fitness, military discipline, and drill and ceremony will be stressed. A course fee will be charged to cover the initial cost of a required workout uniform (shorts, T-shirt, socks, and cap). (Prerequisites: All students should be in excellent health and free from any debilitating medical profiles which may preclude them from vigorous exercise or marching. Students may be required to take a medical examination and provide documentation of good health.) (2 hr lec/2 hr lab/0OJT)

PE2999 Special Topics in Physical Education 1-3 credits (I)
Study of special topics in physical education. Special course topics will be announced in the class schedule.

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

Philosophy

PHIL1120 Introduction to Philosophy 3 credits (S)

This course will survey some of the major questions that have concerned philosophers throughout history. Included will be a presentation of basic philosophical concepts and vocabulary necessary to understand these concepts. The course will include a discussion of such topics as the existence of God, causality, freewill and determinism, the mind-body problem, and theories of knowledge and reality. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL1125 Logic 3 credits (F/S)

An introduction to Aristotelian logic and modern symbolic logic. Include formal predicate and sentential logic, induction, and methods of translation. MTC goal areas: (2) Critical Thinking (4) Mathematics/Logical Reasoning, and (6) Humanities and Fine Arts. (Prerequisites:   and Algebra I or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL1130 Ethics 3 credits (F/S)

Important ethical theories of right and wrong, good and bad. Includes egoism, divine command theory, natural law theory, utilitarianism, duty-based ethics, social contract theory, and virtue theory. The course will emphasize the use of reason in decision making. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (9) Ethical and Civic Responsibility. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL1140 Critical Thinking 3 credits (F/S)

A study of fundamental thinking, reasoning, and language patterns encountered in everyday life. Topics include the nature of argument, informal fallacies, evaluating arguments, and critical problem solving. Focus will be to develop reasoning skills useful in everyday situation. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL2140 Philosophy of Religion 3 credits (F)

An examination of ideas central to religious philosophy. Includes discussion of religious experience, the origins of religion, analysis of religious claims, and ideas of the holy. MTC goal areas: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ENGL1106 with a grade of "C" or better or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL2150 Political Philosophy 3 credits (S)

A survey of political concepts from ancient to modern times. Includes discussion of ideologies such as dictatorship, democracy, socialism and anarchism, as well as, concepts such as right, equality, justice, liberty, and political obligation. MTC goal areas: (2) Critical Thinking, (6) Humanities and Fine Arts, and (9) Ethic and Civic Responsibility. (Prerequisites: ENGL1106 with a grade of "C" or better) (3 hrs lec/0 hrs lab/0 hrs OJT)

PHIL2999 Special Topics in Philosophy 1-3 credits (I)

Study of special topics in philosophy. Special course topics will be announced in the class schedule.

Physics

PHYS1001 Fundamental Concepts of Physics

4 credits (F)

This is a laboratory oriented course covering the basic concepts of Physics. Conceptual understanding will be stressed. Some simple Algebra may also be used. Designed for middle grade education, liberal arts, rad. tech or other health, technical fields, or as satisfying AA requirements as a natural science course. MTC goal areas: (2) Critical Thinking, and (3) Natural Sciences. (Prerequisites: None) (3 hrs lec/2 hrs lab/0 hrs OJT)

PHYS1101 Introductory Astronomy 4 credits (I)

Students in astronomy will be introduced to several aspects of the universe, will see how astronomical ideas have developed through history, and how our ideas about the universe (and our place in it) have changed. They will investigate the motions of the sun, moon, stars, and visible planets and will learn to identify the major constellations in the night sky and will become aware of changes that occur in the sky with the passage of the seasons. Students will discover what has been learned through exploration of the planets, moons, and other bodies in our solar system. They will learn how the sun produces energy, and how stars form, evolve, and die. Students will discover how galaxies are organized and what their motions teach us about the origin and evolution of the universe. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites:  and MATH0450) (3 hrs lec/2 hrs lab/0 hrs OJT)

PHYS1105 Physical Science 4 credits (I)

A survey of physical science introducing students to the basic principles and concepts of physics, chemistry, geology, astronomy, and meteorology. The focus will be on real life examples and the interconnections between these disciplines. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites:  , and college level math) (3 hrs lec/2 hrs lab/0 hrs OJT)

PHYS1170 Physics for Medical Community 4 credits (I)

This is a preparatory physics course for the medical community. This course includes a study of mass, force, energy waves, and electro-magnetism. Special emphasis is given to x-rays, ultrasound, MRI, and other topics relating to the medical community. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: MATH0460 or equivalent,  , or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

PHYS1201 Introduction to Physics I 5 credits (F/S)

This is an Algebra-based general physics sequence course. It is designed for students majoring in education, medical, biological sciences, other pre-professional, and engineering technology fields. The course will focus on the study of the mechanics of particles and rigid bodies including kinematics, dynamics, conservation laws, linear, angular momentum, work and energy, fluids, Thermodynamics, temperature and heat, kinetic theory. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: MATH0470 or MATH1532 and/or equivalent and placement by assessment test score) (4 hrs lec/2 hrs lab/0 hrs OJT)

PHYS1202 Introduction to Physics II 5 credits (S)

This course is designed for pre-professional, and engineering technology fields. This is the second course in algebra and trigonometry-based introductory physics. This course focuses on the study of electricity, magnetism, and field theory, waves, wave interaction, vibrations, sound, and light. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: PHYS1201 or equivalent or instructor's consent) (4 hrs lec/2 hrs lab/0 hrs OJT)

PHYS2201 General Physics I 5 credits (F)

This calculus-based physics course is designed for science and engineering majors. It focuses on the study of mechanics of particles and rigid bodies including kinematics, dynamics, conservation laws, linear and angular momentum, behavior of fluids at rest and in motion, and thermodynamics. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: MATH2204 or equivalent or instructor's consent) (4 hrs lec/2 hrs lab/0 hrs OJT)

PHYS2202 General Physics II 5 credits (S)

This is the second course in the calculus-based physics sequence designed for science and engineering majors. It focuses on the study of waves and vibration, sound, light, electric field and forces, electric energy, circuits, magnetism and electro-magnetism. MTC goal areas: (2) Critical Thinking and (3) Natural Sciences. (Prerequisites: PHYS2201 or equivalent or instructor's consent) (4 hrs lec/2 hrs lab/0 hrs OJT)

PHYS2401 Statics 3 credits (I)

This calculus based engineering/physics course is designed for engineering majors. It focuses on a study of force systems including composition and resolution of forces, simple structures, principles of equilibria, centriods and moment of inertia. Nature and influence of friction and deformation. MTC goal areas: (2) Critical Thinking, (3) Natural Sciences, and (4) Mathematical/Logical Reasoning. (Prerequisites PHYS2201 and MATH2204, equivalent or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PHYS2999 Special Topics in Physics 1-3 credits (I)

Study of special topics in physics. Special course topics will be announced in the class schedule.

Political Science**PSC1110 American Government 3 credits (F)**

A study of theory, politics, constitutional foundations, structure, functions, procedures, and operation of the American national government. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (9) Ethic and Civic Responsibility. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PSC1120 Introduction to Political Science 3 credits (S)

Essentials of political science with a description of traits universal to the governing processes of all human societies, and concern with the nature and consequences of major variations in these processes. Combines a theoretical and conceptual framework with a study of selected political systems and countries. MTC goal areas: (2) Critical

Thinking, (5) History and the Social and Behavioral Sciences, and (9) Ethic and Civic Responsibility.

(Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PSC1130 State and Local Government 3 credits (S)

State and local politics in the United States with special emphasis on Minnesota. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (9) Ethic and Civic Responsibility.

(Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PSC1140 International Politics 3 credits (S)

The study of the political relations between states, how and why conflicts arise, and the various methods of attempting to resolve these conflicts. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites:

  (3 hrs lec/0 hrs lab/0 hrs OJT)

PSC1299 Special Topics in Political Science

1-3 credits (I)

Study of special topics in political science. Special course topics will be announced in the class schedule.

Psychology**PSYC1010 Psychology for Living 2 credits (F/S)**

A study of personal and social adjustment in human relationships and self-management with emphasis on the development of interpersonal skills, self-concept, self-empowerment, and self-responsibility. Areas of exploration include: life philosophy, decision-making skills, models for personal change, stress management, healthy relationships, personal boundaries, community resources, and support systems.

(Prerequisites:   (2 hrs lec/0 hrs lab/0 hrs OJT)

PSYC1050 Career Exploration 1 credit (F/S)

A scientific and personal approach to the process of matching individual interests, values, personality type, and aptitudes to suitable occupations. (Prerequisites: None) (1 hr lec/0 hr lab/0 hr OJT)

PSYC1115 Psychology of Genealogy 3 credits

This course will enable students to trace their own family history and to identify how their roots have influenced the development of the self. Students will trace their genealogy, examine family myths, beliefs, culture, race, ethnicity, traditions, and identify how these have impacted their own lives and the lives of their ancestors. (Prerequisites:

  , Basic Internet computer skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC1120 General Psychology 3 credits (F/S)

Scientific study of human behavior. A comprehensive introduction to the major factors in human behavior: heredity, environment, maturation, motivation, emotion, personality, perception, learning, thinking, social influences, and mental health. Designed for students who are interested in an in-depth approach to the scientific study of psychology. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:   (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC1135 Human Development 3 credits (F)
A scientific, theoretical, and personal examination of physical, intellectual, emotional, and social development across the life span. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites: PSYC1120 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2125 Child Psychology 3 credits (F/S/I)
An in-depth practical and scientific study of the physical, cognitive, and socioemotional changes involved in prenatal development through late childhood. Emphasis is placed on healthy prenatal development, parenting, learning disabilities, relationships, schools, and healthy development. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites: PSYC1120 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2130 Adolescent Psychology 3 credits (F/S)
The study of psychological and developmental characteristics during adolescence. Included are the biological, cognitive, moral, and sexual development in healthy adolescent development. Risk factors and problems in adolescence are explored, particularly with high risk adolescents. This course is appropriate for any student who would like to learn more about adolescence and in particular anyone working with adolescents in any capacity including parents. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites: PSYC1120) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2140 Abnormal Psychology 3 credits (F/S)
Mental and behavioral disorders: their theoretical perspectives, classification, description, assessment, and intervention techniques. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites: PSYC1120 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2145 Social Psychology 3 credits (F/S)
Social Psychology is a review of contemporary social psychology. Methods, key concepts, terms, and current findings will be covered. Additionally, the course will include a review of theory while encouraging self-exploration. MTC Goals: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity (Prerequisites:  )

PSYC2150 Psychology of Aging and Elderly 3 credits (F/S)
An introduction to the scientific and practical study of the physical, social, cognitive, and emotional changes in later life and how these factors affect families, caregivers, and communities. Designed for all students in the helping professions and for those interested in the psychological functioning of individuals in the decades of later life. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites: PSYC1120 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2160 Health Psychology 3 credits (I)
A scientific and practical course concentrating on understanding the many psychological influences on how people stay physically and mentally healthy. It focuses on the psychological forces; stress, personality, attitudes, beliefs, cop-

ing techniques - involved in health promotion, maintenance, and the treatment of illness. Designed for students and for all health professionals wishing to learn more about the mind/body interactions and how these affect physical and mental health. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

PSYC2999 Special Topics in Psychology 1-3 credits (I)
Study of special topics in psychology. Special course topics will be announced in the class schedule.

Physical Therapist Assistant

PTA1000 Introduction to Health and Medical Literature 1 credit (F)
This course provides a basic introduction to understanding scientific and health-related literature, with a focus on written and on-line scientific journals. Students will learn how to find journal articles relevant to a particular health care field of study, obtain these articles, and better understand the contents of such articles. Students writing papers in health-related courses will find this course helpful. The course also covers various methods of citing references for written papers. (Prerequisites: ENGL1106) (1 hr lec/0 hrs lab/0 hrs OJT)

PTA1410 Introduction to Physical Therapist Assisting 3 credits (F)
This initial PTA course provides the skills used daily as a Physical Therapist Assistant. Emphasis is on legal and ethical practice, professional behaviors, safety, and patient care skills including: lifting methods, basic wheelchair operations, body mechanics, vital signs, universal/standard precautions, patient positioning and draping, intermittent compression pump, gait patterns with ambulation aids, and introduction to APTA. (Prerequisites: ALTH1410, BIOL1140, ENGL1106, Clinical Observation Form, and physical exam) (1.5 hrs lec/3 hrs lab/0 hrs OJT)

PTA1411 Procedures for PTAs I 3 credits (F)
This course covers a continuation of the basic physical therapy skills with emphasis on massage, superficial heat (hot packs, paraffin wax, infrared lamps), and cryotherapy. Documentation theory and practice is included. Integration of previous or concurrent patient care skills is combined with the modality techniques. General physics principles that apply to the human body are presented. (Prerequisites: ALTH1410, BIOL1140, ENGL1106, and clinical observation form) (2 hrs lec/2 hrs lab/0 hrs OJT)

PTA1417 Physical Therapy Clinic I 2 credits (F)

This course involves working in an outpatient physical therapy clinic in which first year PTA students will work in partnership with second year students to provide physical therapy services to patients. The student, under the supervision of physical therapists and physical therapist assistants in the clinic, will follow the physical therapist's treatment plan and apply physical therapy skills learned during concurrent courses. Skills will begin with those of a physical therapy aide and receptionist, beginning development of generic abilities (professional behaviors and communication), introduction to legal and ethical practice and role of the PTA, and progress to applying simple physical therapy interventions and data collection techniques. Time for discussion and reflection is included. A personal property fee is charged. (Concurrent enrollment in PTA1411 or instructor's consent, liability insurance, evidence of recent Mantoux test.) (0 hrs lec/4 hrs lab/0 hrs OJT)

PTA1421 Pathology for PTAs I 1 credit (F)

This course provides an introduction to pathophysiology of the musculoskeletal system and helps to stress the importance of treatment provided by physical therapy, and the overall care of a person with a given pathology. Review of the roles of health care professionals involved in the care of persons with disease will also be discussed. A variety of pathologies are studied which include: arthritic conditions, spine disorders, common orthopedic conditions, amputations, diabetes, and disorders of the circulatory system. (Prerequisites: ALTH1410, BIOL1140, ENGL1106, and have taken or enrolled in PTA1460) (1 hr lec/0 hrs lab/0 hrs OJT)

PTA1431 Therapeutic Exercise I 2 credits (F)

This course presents the theoretical information and instructions for performing and documenting passive, active assistive, and active range of motion exercises, goniometry measurements of joint range of motion, manual muscle strength testing, and manual resistance exercises. Patient handling skills which have been previously learned and are being concurrently learned are integrated into this course. A personal property fee will be charged in addition to tuition. (Prerequisites: ALTH1410, BIOL1140, ENGL1106, and concurrently enrolled in or have taken PTA1460) (1 hr lec/2 hrs lab/0 hrs OJT)

PTA1460 Functional Kinesiology I 2 credits (F)

This course provides the foundation of musculoskeletal information recommended for students interested in health and exercise programs that focus on quality of movement. Students study the human musculoskeletal system and principles that influence movement. The course includes studying the location and function of bones and muscles. Students are introduced to palpation skills and observation skills through the analysis of functional movement. (Prerequisites: BIOL1140 or BIOL1150, ALTH1410) (1 hrs lec/2 hrs lab/0 hrs OJT)

PTA1512 Procedures for PTAs II 2 credits (S)

This course covers a continuation of physical therapy skills including: hydrotherapy, ultrasound and other deep heating modalities, sterile technique and sterile dressing changes, and techniques for applying spinal traction. Other techniques students are exposed to include CPM and dynamic splinting. Previously learned patient care skills are integrated. Documentation of skills will be practiced. A per-

sonal property fee is required. (Prerequisites: PTA1460, PTA1410, PTA1411, PTA1421, and PTA1431) (1 hrs lec/2 hrs lab/0 hrs OJT)

PTA1522 Pathology for PTAs II 1 credit (S)

This course provides an introduction to pathophysiology of the integumentary system, circulatory system, endocrine system, and also covers organ transplants, neoplasms, ophthalmological and auditory conditions, and mental health disorders. Principles of wound healing are presented. Basic pharmacology concepts relevant to care of patients will be covered. Review of the roles of health care professionals involved in the care of patients with disease will also be discussed. The pathologies studied relate to the PTA courses in which the student is concurrently enrolled. (Prerequisites: PTA1460, PTA1410, PTA1411, PTA1421, and PTA1431) (1 hr lec/0 hrs lab/0 hrs OJT)

PTA1527 Physical Therapy Clinic II 2 credits (S)

This course involves working in an outpatient physical therapy clinic in which first year students treat patients under the supervision of physical therapists and physical therapist assistants. The student will follow the physical therapist's treatment plan and provide physical therapy services learned during concurrent and previous courses. Skills will begin with those practiced during PTA1417 and progress to applying physical therapy interventions and data collection skills as they are learned during the second semester. Time for discussion and reflection is included. (Prerequisites: PTA1417, concurrent enrollment in PTA1512, or instructor's consent. (0 hrs lec/4 hrs lab/0 hrs OJT)

PTA1532 Therapeutic Exercise II 3 credits (S)

This course covers muscle structure and function, the theory of therapeutic exercise, and types of exercise appropriate for certain patient conditions. Mobility, strength, endurance and coordination exercise programs are presented. Normal and abnormal postures are analyzed. Integration of previously learned patient handling skills are integrated with exercise. A personal property fee is required. (Prerequisites: PTA1460, PTA1410, PTA1411, PTA1421, and PTA1431) (2 hrs lec/2 hrs lab/0 hrs OJT)

PTA1541 Issues in Physical Therapy Practice I

1 credit (S)

This course covers issues the PTA will see in the work setting. Emphasis is on professional behaviors, ethical and legal practice, interpersonal communication, patient respect issues, reimbursement issues, and time management. These topics are integrated with previously learned skills and with skills in concurrent courses. (Prerequisites: PTA1460, PTA1410, PTA1411, PTA1421, and PTA1431) (1 hr lec/0 hrs lab/0 hrs OJT)

College Level Reading = 
College Level Writing = 

PTA1562 Functional Kinesiology II 4 credits (S)

This course covers the structure and function of skin, connective tissues, joint tissues, and the spinal nerves, and applies this information to orthopedic disorders in the human body. General physics principles that apply to the human body are presented. PTA assessment and observational skills are integrated with therapeutic exercise and modality knowledge. Normal gait and common gait deviations are compared. Previously learned patient handling skills are integrated. (Prerequisites: PTA1410, PTA1411, PTA1421, PTA1431, and PTA1460) (3 hrs lec/2 hrs lab/0 hrs OJT)

PTA1576 Clinical Skills Review 1 credit (F/S)

This course is a supervised open lab course. This elective course could be taken for a variety of reasons: review of previous skills; review or practice of new/concurrent course skills; enhancement and application of clinical skills. The course could be taken repeatedly up to a maximum of 4 credits whenever lab courses are required or it could be taken to meet necessary clinical criteria (re-entry or "Plan of Actions") (Prerequisites: Currently enrolled in PTA courses) (0 hrs lec/2 hrs lab/0 hrs OJT)

PTA2613 Procedures for PTAs III 2 credits (F)

This course covers the theory of electrical stimulation, the therapeutic current characteristics which cause physiological responses and the equipment that produces these responses. Previously learned patient care skills are integrated into the course. A personal property fee is required. (Prerequisites: PTA1527) (1 hr lec/2 hrs lab/0 hrs OJT)

PTA2623 Pathology for PTAs III 2 credits (F)

This course provides an introduction to pathophysiology of the respiratory and nervous system. In addition, musculoskeletal conditions related to peripheral joints are emphasized, as are developmental and genetic pathologies, reproductive and urinary system dysfunction, women's health issues and diagnostic imaging. Specific pathologies are integrated with assessment and treatment techniques discussed in concurrent courses. This course reinforces that pathologies may affect multiple systems of the body and have a social and economic effect on the client. Thus, an integrative treatment approach helps to summarize the PTA role in these conditions. (Prerequisites: PTA1527) (2 hrs lec/0 hrs lab/0 hrs OJT)

PTA2637 Physical Therapy Clinic III 2 credit (F)

This course involves working in an outpatient physical therapy clinic in which second year PTA students work in partnership with first year students to provide physical therapy services to patients. The student, under the supervision of physical therapists and physical therapist assistants in the clinic, will follow the physical therapist's treatment plan and apply physical therapy skills learned during concurrent and previous courses. The second year student will instruct the first year student in the skills of a physical therapy aide and receptionist, introduction to legal and ethical practice and role of the PTA, and in the application of simple physical therapy interventions and data collection skills. The second year student will continue to apply physical therapy skills learned during the first year in the program and add new skills as learned in the second year. Time for discussion and reflection is included. Liability insurance fee. (Prerequisites: PTA1527, concurrent enrollment in PTA2613 or instructor's consent) (0 hrs lec/4 hrs lab/0 hrs OJT)

PTA2642 Issues in Physical Therapy Practice II 1 credit (F)

This course covers issues the PTA will see in the physical therapy profession and in the clinic. Emphasis is on management skills, PTA career options and licensure, physical therapy professional organizations, and patient and disability related issues such as sexuality, cultural diversity, motivation, and death and dying. (Prerequisites: PTA1527) (1 hr lec/0 hrs lab/0 hrs OJT)

PTA2650 Rehabilitation and Functional Therapy 4 credits (F)

This course applies motor control and motor learning theories to therapeutic exercise knowledge to fully meet the needs of the neurologically impaired patient and family to return the patient to a functional lifestyle. Content includes uses of adaptive equipment, mobility needs for activities of daily living, facilitation techniques, patient/family education, wheelchair mobility, and identification of architectural barriers. Previously learned patient handling skills are integrated. (Prerequisites: PTA1527) (2 hrs lec/4 hrs lab/0 hrs OJT)

PTA2651 Advanced Physical Therapy Techniques 3 credits (F)

This course covers special techniques and treatment protocols with which the PTA will assist the physical therapist. These include sensory testing, cardiac rehab, pulmonary care, care of geriatric and pediatric clients, pool therapy; Swiss Ball gymnastics, care of the amputee client, and components of industrial medicine. Previously learned skills are integrated. Personal property fee required. (Prerequisites: PTA1527 and current liability insurance) (2 hrs lec/2 hrs lab/0 hrs OJT)

PTA2717 Clinical Practice I 4 credits (S)

This course is the student's first of three full time clinical internships in a physical therapy facility. The student will function as a second year PTA student in the facility for 5 consecutive weeks and will be responsible for patient care compatible to the role of the PTA and skills learned. (Prerequisites: BIOL1141, PSYC1120, PSYC1135, COMM/SPCH1110 or COMM/SPCH1105, PTA2623, PTA2650, PTA2651, PTA2613, PTA2642, PTA2637, CPR and First Aid Certification, and liability insurance) (0 hrs lec/0 hrs lab/12 hrs OJT)

PTA2727 Clinical Practice II 4 credits (S)

This course is the second of three full time clinical internships in a physical therapy facility. The student will function as a second year PTA student in the facility for 5 consecutive weeks and will be responsible for patient care compatible to the role of the PTA. (Prerequisites: PTA2717, CPR Certification, and liability insurance) (0 hrs lec/0 hrs lab/12 hrs OJT)

Term Course Codes:

(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

PTA2747 Clinical Practice III 3 credits (F/S)
This course is the student's final clinical internships in a physical therapy facility. The student will function as a second year PTA student in the facility for 4 consecutive weeks and will be responsible for patient care compatible to the role and entry level skills of the PTA. (Prerequisites: PTA2727, CPR Certification, and liability insurance) (0 hrs lec/0 hrs lab/9 hrs OJT)

PTA2780 Physical Therapist Assistant Basic Refresher (I)
This course is designed to assist physical therapist assistants in reviewing and/or updating concepts fundamental to physical therapy as well as new theories about practice. It will also be helpful to those preparing to take the national licensure exam and those who have not actively practiced physical therapy in the recent past. (Prerequisites: Graduate of CAPTE accredited physical therapist assistant program) (2 hr lec/0 hrs lab/0 hrs OJT)

PTA2840 Professional Integration 1 credit (S)
This capstone course is designed to help PTA students transition from full-time clinical experiences to post-graduation practice. Students will review major concepts taught throughout the program and during clinicals. Students will be expected to pass a comprehensive written examination which will help prepare them to take the national licensing exam. (Prerequisites: Concurrent enrollment in PTA2717, PTA2727, and PTA2747) (1 hr lec/0 hrs lab/0 hrs OJT)

PTA2999 Special Topics in Physical Therapist Assistant 1-3 credits (I)
Study of special topics in physical therapist assistant. Special course topics will be announced in the class schedule.

Radiologic Technology

RADT1400 Introduction to Radiography and Patient Care 2 credits (F)
An introduction to Radiologic Technology as a career, its role in health care delivery medical ethics and legal responsibilities. Patient care aspect focuses on communication, patient care needs and handling of patients in radiology related examinations. (Prerequisites: Enrollment in an Allied Health Program or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

RADT1415 X-ray Operations for Allied Health 2 credits (I)
This course provides basic information and knowledge of the science and art of radiography. It is intended for non-radiologic health care majors or professionals to aid in preparation for state x-ray operator licensure. (Prerequisites: Enrollment in an Allied Health Program or instructor's consent) (2 hours lec/0 hrs lab/0 hrs OJT)

RADT1453 Radiographic Procedures I 2 credits (F)
This course reviews the architectural plan of the body with emphasis on the structure and function of the skeleton. The student will learn the basics of positioning to obtain radiographs of specific regions and structures of the body. The lab component will stress positioning and radiographic evaluation. (Prerequisites: ALTH1410 and BIOL1140) (1 hr lec/2 hrs lab/0 hrs OJT)

RADT1463 Radiographic Procedures II 4 credits (S)
A continuation of RADT1453 and a study of the anatomy and positioning of the lower extremities, hip, pelvis, spine and contrast studies of the GI and GU systems. (Prerequisites: RADT1453 concurrent with RADT1568) (3 hrs lec/2 hrs lab/0 hrs OJT)

RADT1552 Image Production I 3 credits (F)
An introduction to radiation safety and x-ray exposure. This course will include study of: the prime factors of radiographic exposure with its effect on the radiographic image; anatomy and characteristics of radiographic film and film processing; methods of radiation safety; general radiographic equipment and accessories for image production. The student will calculate adjustment of various factors that control radiographic exposure. (Prerequisite: Admission to the Radiologic Technology Program. MATH0460 or placement test scores) (3 hrs lec/0 hrs lab/0 hrs OJT)

RADT1558 Clinical Radiography I 6 credits (F)
To acquaint the student with the hospital environment through supervised participation of theories presented in the classroom. Emphasis on patient care and transportation, protocol in the hospital and radiology department, identification and operation of radiographic equipment/supplies, and office and darkroom procedures. (Prerequisites: Entry into the Radiologic Technology program, State of Minnesota and/or Wisconsin background study approval) (0 hr lec/2 hr lab/15 hr OJT)

RADT1560 Image Production II 3 credits (S)
A continuation of RADT1552 with emphasis on the analysis of radiographic image quality. This course will also discuss the circuitry common to most radiographic equipment, specialized radiographic equipment, processing, radiographic film and screens. Students will be involved in solving technical problems and making technical adjustment. (Prerequisites: RADT1552) (3 hrs lec/0 hrs lab/0 hrs OJT)

RADT1568 Clinical Radiography II 8 credits (S)
This course provides the student with the opportunity to operate more independently in all areas of basic radiography. Competency testing continues as well as weekend and evening clinical internships. Exposure is given to specialized modalities in medical imaging. Clinical objectives, specific to each rotation, are found in the clinical objective handbook. No signatures are required on the objective worksheets this term. (Prerequisites: RADT1558, current State of Minnesota/Wisconsin background study approval) (0 hr lec/2 hr lab/21 hr OJT)

RADT1578 Clinical Radiography III 4 credits (Arr)
A continuation of Clinical Radiography II, this course provides the student with the opportunity to operate more independently in all areas of general radiography. Competency testing continues as well as weekend and evening clinical rotations. Exposure is given to specialized modalities in medical imaging. (Prerequisites: RADT1568) (0 hr lec/2 hr lab/9 hr OJT)

RADT2451 Specialized Procedures 1 credit (F)
An introduction to specialized radiographic procedures of the circulatory system. This course will discuss the history of angiographic procedures as well as current day procedures. (Prerequisites: RADT1463 and concurrent with RADT2558) (1 hr lec/0 hrs lab/0 hrs OJT)

RADT2453 Radiographics Procedures III 2 credits (F)
A continuation of Procedures II with areas of study to include anatomy and positioning of the skull, pediatric, and geriatric radiography. An introduction to mammography, arthrography, venography and sialography will be included. (Prerequisites: RADT1463) (1.5 hrs lec/1 hr lab/0 hrs OJT)

RADT2455 Radiographic Pathology 1 credit (F/S)
This study of the disease as it relates to radiographic studies. Pathological conditions of each body system will be demonstrated using general radiology and advanced imaging modalities. Comparisons will be made between normal and abnormal anatomy due to the presence of pathology. Students will have the opportunity to tour a post-room (morgue) at one of the area hospitals. (Prerequisites: RADT1463) (1 hr lec/0 hrs lab/0 hrs OJT)

RADT2550 Radiation Biology and Protection 2 credits (F)

The study of radiation and the effects of radiation exposure on the human body. Acute and chronic responses will be discussed in regard to molecules, cells, tissues, and organs. The principles of radiation protection including the responsibility of the technologist to the patient, personnel, and public will be addressed. The regulations and regulatory commissions governing exposure of ionizing radiation to humans will also be examined. (Prerequisites: RADT1560) (2 hrs lec/0 hrs lab/0 hrs OJT)

RADT2558 Clinical Radiography IV 8 credits (F)
This course provides the student with the opportunity to operate more independently in all areas of basic radiography. Competency testing continues as well as weekend and evening clinical internships. Exposure is given to specialized modalities in medical imaging. Clinical objectives, specific to each rotation, are found in the clinical objective handbook. No signatures are required on the objective worksheets this term. (Prerequisites: RADT1578 and current State of Minnesota background study approval) (0 hrs lec/2 hrs lab/21 hrs OJT)

RADT2560 Quality Assurance in Radiologic Technology 1 credit (S)
A study of the fundamental organization and procedures of a radiologic quality assurance program. The student will perform and analyze a varied number of noninvasive quality control tests designed to evaluate the operation performance of a radiographic system. (Prerequisites: RADT1560) (1 hr lec/0 hrs lab/0 hrs OJT)

RADT2568 Clinical Radiography V 8 credits (S)
A continuation of Clinical Radiography IV, this course provides the student with the opportunity to operate more independently in all areas of basic radiography. Competency testing continues as well as weekend and evening clinical internships. Exposure is given to specialized modalities in medical imaging. (Prerequisites: RADT2558) (0 hrs lec/2 hrs lab/14 hrs OJT)

RADT2572 Directed Studies in Radiologic Technology 1 credit (S)

This course will help prepare the student for the American Registry of Radiologic Technology exam by assisting with a long term study plan, developing testing strategies, review of calculations and formulas, and mock testing. In

addition, a workshop will be held to prepare the student for entry in the radiology job market. (Prerequisites: RADT2550) (1 hr lec/0 hrs lab/0 hrs OJT)

RADT2578 Clinical Radiography VI 4 credits (Arr)
A continuation of Clinical Radiography V, this course provides the student with the opportunity to operate more independently in all areas of general radiography. Competency testing continues as well as weekend and evening clinical rotations. Exposure is given to specialized modalities in medical imaging. (Prerequisites: RADT2568) (0 hrs lec/2 hrs lab/9 hrs OJT)

RADT2999 Special Topics in Radiologic Technology 1-3 credits (I)

Study of special topics in radiologic technology. Special course topics will be announced in the class schedule.

Reading

READ0450 Reading Strategies I 3 credits (F/S)
A developmental course designed to develop basic strategies necessary for reading and learning effectively in college. (Prerequisites: Appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

READ0460 Reading Strategies II 3 credits (F/S)
A developmental course designed to provide practice in applying strategies necessary for reading and learning effectively in college. Any student who tests into READ0460 must take STSK1011. (Prerequisites: READ0450 with a grade of "C" or better, or appropriate placement test score) (3 hrs lec/0 hrs lab/0 hrs OJT)

READ1450 Introduction to Critical Reading 3 credits (F/S)

A course designed to sharpen the critical thinking and reading skills of the beginning college reader through the examination of materials in the four genres most frequently encountered in college: poetry, short fiction, essays, and textbook chapters. MTC goal area: (2) Critical Thinking. (Prerequisites: [INSERT ICON FOR COLLEGE LEVEL READING] or READ0460) (3 hrs lec/0 hrs lab/0 hrs OJT)

READ2999 Special Topics in Reading 1-3 credits (I)
Study of special topics in reading. Special course topics will be announced in the class schedule.

Respiratory Care Practitioner

RESP1400 Introduction to Respiratory Care 1 credit (F)

This course introduces students to the respiratory care profession. There will be an overview of respiratory pathophysiology and pharmacology to ready the student for clinical. (Prerequisites: Concurrent enrollment or completion of all semester 1 courses on the RCP planner or instructor's consent) (1 hr lec/0 hrs lab/0 hrs OJT)

RESP1410 Cardiopulmonary Anatomy and Physiology 4 credits (F)

This course focuses on cardiopulmonary anatomy and physiology topics pertinent to the respiratory care practitioner. (Prerequisites: Concurrent enrollment or completion of all semester 1 RCP courses or instructor's consent) (4 hrs lec/0 hrs lab/0 hrs OJT)

RESP1420 Principles and Practice of Respiratory Care I 3 credits (F)

This course covers the principles and equipment used for oxygen therapy and aerosol therapy in respiratory care. A lab fee may be assessed. (Prerequisites: Concurrent enrollment in, or completion of, all semester 1 courses on the RCP planner or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

RESP1520 Principles and Practice of Respiratory Care II 3 credits (S)

This course covers the principles and equipment used for hyperinflation therapy and airway care in respiratory care. A lab fee may be assessed. (Prerequisites: Completion of all semester 1 courses on the RCP planner or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

RESP1530 Pathophysiology for RCP's 3 credits (S)

This course covers respiratory diseases with an emphasis on physical assessment of the respiratory patient. In addition, we will cover some common non-respiratory conditions. (Prerequisites: Completion of all semester 1 courses on the RCP planner or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

RESP1540 Diagnostic Testing 3 credits (F)

This course covers respiratory physiology related to pulmonary function testings and stress testing. Basic interpretation of chest x-ray and electrocardiogram will be covered. (Prerequisites: Concurrent enrollment or completion of all semester 1 RCP courses or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

RESP1558 RCP Clinical I 6 credits (S)

This course will provide the student an opportunity to integrate and practice respiratory care theory and laboratory applications in a clinical environment. (Prerequisites: Completion of all semester 1 courses on the RCP planner or instructor's consent) (0 hrs lec/6 hrs lab/9 hrs OJT)

RESP1578 RCP Refresher Clinical I 1 credit (Arr)

This course will provide the student an opportunity to integrate and practice first-year respiratory care theory and laboratory applications in a clinical environment. This course is intended for students who have stopped out of the RCP Program after having completed one semester or more of clinical courses. Before the student re-enters the clinical courses on the RCP Planner, they need to review and practice clinical procedures. (Prerequisites: Completion of one or more RCP clinical courses. Current CPR certification) (0 hrs lec/2 hrs lab/0 hrs OJT)

RESP1620 Pharmacology for RCP's 2 credits (S)

This course covers general pharmacology principles, dose calculations, and methods of administration for drugs commonly given by the respiratory care practitioner. This course will also cover drugs commonly given to the respiratory patient such as antibiotics, analgesics, cardiovascular agents, and others. (Prerequisites: Completion of all semester 1 courses on the RCP planner or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

RESP2410 Mechanical Ventilation 4 credits (F)

This course will cover mechanical ventilation indications, physics, complications, management, monitoring, devices, and weaning. There will be discussion of advanced modes

of mechanical ventilation. A lab fee may be assessed. (Prerequisites: Completion of all semester 1, 2 and 3 courses on the RCP planner or instructor's consent) (3 hrs lec/2 hrs lab/0 hrs OJT)

RESP2420 Adult Critical Care 3 credits (F)

This course covers invasive hemodynamic monitoring and noninvasive monitoring. Chest tubes, fluid and electrolyte balance, and other critical care content will be covered. (Prerequisites: Completion of all semester 1, 2 and 3 courses on the RCP planner or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

RESP2430 Special Topics for RCP's 2 credits (F)

This course covers pulmonary rehabilitation, home care and sub-acute care settings as it applies to respiratory care practitioners and their patients. (Prerequisites: Completion of all semester 1, 2 and 3 courses on the RCP planner or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT)

RESP2440 Neonatal/Pediatric Respiratory Care 3 credits (F)

This course covers developmental anatomy and physiology, neonatal/pediatric diseases, assessment, oxygen therapy, airway care, and mechanical ventilation of the neonatal and pediatric patient. A lab fee may be assessed. (Prerequisites: Completion of all semester 1, 2 and 3 courses on the RCP planner or instructor's consent) (2 hrs lec/2 hrs lab/0 hrs OJT)

RESP2458 RCP Clinical II 6 credits (F)

This course will provide the student an opportunity to integrate and practice respiratory care theory and laboratory applications in a clinical environment. (Prerequisites: Completion of all semester 1, 2, and 3 courses on the RCP planner or instructor's consent) (0 hrs lec/6 hrs lab/9 hrs OJT)

RESP2478 RCP Refresher Clinical II 1 credit (Arr)

This course will provide the student an opportunity to integrate and practice second-year respiratory care theory and laboratory applications in a clinical environment. This course is intended for students who have stopped out of the RCP Program after having completed one semester or more of clinical courses. Before the student re-enters the clinical courses on the RCP Planner, they need to review and practice clinical procedures. (Prerequisites: Completion of RESP1578 and first two semester clinical courses. Current CPR certification) (0 hrs lec/2 hrs lab/0 hrs OJT)

RESP2510 Directed Studies in Respiratory Care 3 credits (S)

This course will review respiratory care with emphasis on areas of need for administration of the self assessment exams. The course will cover advanced analysis of clinical data and integration of data into clinical management plans. The course prepares the student for the MBRC, CRTT and RRT exams they will be taking after graduation for national credentialing. The student will be required to pay for the NBRC self assessment exams and scoring. (Prerequisites: Completion of semesters 1, 2, 3 and 4 courses on the RCP Planner or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

RESP2558 RCP Clinical III 8 credits (S)

This course will provide the student an opportunity to integrate and practice respiratory care theory and laboratory applications in a clinical environment. (Prerequisites: Completion of semesters 1, 2, 3 and 4 courses on the RCP Planner or instructor's consent) (0 hrs lec/4 hrs lab/18 hrs OJT)

RESP2999 Special Topics in Respiratory Care Practitioner 1-3 credits (I)

Study of special topics in respiratory care practitioner. Special course topics will be announced in the class schedule.

Supervisory Management**SMGT1400 Supervisory Leadership 3 Credits (F/S)**

This course teaches participants current principles, concepts, responsibilities and practical application skills fundamental to success as a supervisor. Students will participate in hands-on projects in class and at work dealing with topics such as leadership, communication, employee motivation, delegation, planning, team building, quality & productivity, problem-solving, organizing, and managing performance. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1405 Strategies For Personal Leadership 3 Credits (F/S)

This course will provide students with the tools and strategies to create an increased level of personal productivity from which they can more effectively solve problems and develop strong personal and professional relationships. Students will identify and demonstrate skills specific to supervisory responsibilities such as providing feedback, collaborating with peers, resolving conflict, gaining support from others, and getting your ideas across. Students will participate in team projects, small group discussions, and will complete a personal leadership action plan as one of the required course outcomes. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1415 Leadership Development & Ethics 3 Credits (F/S)

This course provides the learner with leadership concepts and tools to enhance and improve their ability to motivate and positively influence others. Emphasis will be placed on creating positive and powerful relationships based on principles and values. In addition to leadership concepts and skills, the ethical considerations of leadership will be discussed. Students will learn strategies and skills to effectively deal with ethical issues supervisors are faced with at work. Key areas include leadership, motivation, confidentiality, and organizational and individual behavior as they relate to issues such as sexual harassment, workplace violence, employee theft, and customer relationships. Students will participate in team projects, small group discussions, and will complete a personal leadership action plan as one of the required course outcomes. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1425 Managing Time, Change & Stress 3 Credits (F/S)

This course will enable students to develop skills and strategies that will allow them to more effectively accomplish significant objectives and keep pace with the rapid and dramatic changes in the workplace today. Students

will learn to set goals, develop daily and weekly action plans, handle interruptions, delegate, and determine the relative effectiveness of traditional time management tools. Participants will learn to become a change leader by effectively identifying and overcoming resistance to change by creating a work environment where change is expected and viewed as positive. Students will also learn skills and strategies necessary to recognize and effectively manage stress in the workplace. Emphasis will be on identifying the sources of stress, understanding the physiological and psychological aspects of stress, and on creating positive ways to reduce stress and minimize the potential for workplace burnout. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1455 Leadership Capstone Project 2 Credits (F/S)

This course is designed to allow the student to create and implement a workplace project that utilizes knowledge, tools, and skills specific to completed Leadership courses. Objectives of the Capstone Project must be created by the student to enhance their workplace skills and must directly relate to course content in the Leadership Certificate component of the Supervisory Management AAS degree program. The "Leadership Capstone Project" is to be designed by the student for actual application at their place of work during the semester they are enrolled in the Leadership courses. The student will complete the project and make a formal presentation at the end of the semester. (Prerequisites:  ) (2 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1505 Quality & Improvement 3 Credits (F/S)

Students will learn principles and use tools for quality and continuous improvement. The course will clarify the importance of the supervisor's role and responsibilities related to quality including identifying customer needs, applying tools and techniques for improving systems and processes, developing a quality training plan for work group members, and enhancing work group commitment to quality. Students will participate in a group to complete a quality/continuous improvement course project. This course also provides students with concepts and tools to increase organizational effectiveness and customer satisfaction. Emphasis will be placed on creating a culture supportive of making customer focused decisions and motivating others to service excellence. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1515 Building & Leading Effective Work Teams 3 Credits (F/S)

This course provides students with concepts and strategies to build and lead effective work teams. Selection of team members, team compatible behaviors and characteristics, and the stages of team development will be discussed. Focus will be placed on participative leadership, drawing on the knowledge and expertise of individuals and teams within an organization, yielding higher participation, productivity and satisfaction. This course also examines the beneficial aspects of valuing and managing diversity characteristics such as culture, race, sex, age, and ability in the workplace. Students will assess personal assumptions, biases and stereotypes and their impact on performance. Students will develop strategies and action steps to eliminate barriers to equal access and professional growth in order to enable every employee to reach their potential. Students will participate in team projects. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1525 Project Management 3 Credits (F/S)
Students will learn how to construct and use several project planning and control tools such as Critical Path Method, Work Breakdown Structure, PERT Diagrams and Gantt Charts. Students will plan a relevant work project using these project management tools as one of the required course outcomes. This course is designed to teach students how to plan, prepare, organize, conduct, and evaluate effective meetings and effectively and accurately document performance and communicate with employees using a variety of written formats. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1535 Creative Problem Solving 3 Credits (F/S)
In this course students will learn a systematic approach to solving workplace problems by using tools for gathering, analyzing and evaluating data. Students will also learn techniques to improve creativity, group participation, and for gaining approval and support for successful implementation of solutions. Students will participate in a group to complete a course problem-solving project. This course also teaches students how to develop more creative and innovative solutions to difficult and complex problems. Students will learn to find fresh insight and new perspectives for positively impacting their leadership role at work. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1555 Quality Capstone Project 2 Credits (F/S)
This course is designed to allow the student to create and implement a workplace project that utilizes knowledge, tools, and skills specific to completed Quality courses. Objectives of the Capstone Project must be created by the student to enhance their workplace skills and must directly relate to course content in the Quality Certificate component of the Supervisory Management AAS degree program. The "Quality Capstone Project" is to be designed by the student for actual application at their place of work during the semester they are enrolled in the Quality courses. The student will complete the project and make a formal presentation at the end of the semester. (Prerequisites:  ) (2 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1605 Performance Management & Coaching 3 Credits (F/S)
This course covers techniques for improving employee performance and the skills necessary to coach, mentor, tutor, counsel, and confront performance in order to help employees become more committed to performance objectives and increase productivity. Students will learn procedures for setting performance standards, measuring results, and discussing performance. Students will also learn skills necessary for conducting an effective performance review including how to plan for a performance review meeting, how to develop a performance improvement plan, how to provide for periodic progress reviews and how to practice interim coaching skills. Students will practice setting, communicating, and coaching to performance expectations. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1615 Employment Law & Occupational Safety 3 Credits (F/S)
This course allows students to examine workplace issues impacting supervisory responsibilities such as employee hiring decisions, discrimination, unemployment compensation, workers' compensation, Fair Labor Standards Act, employee safety and health, regulations and guidelines set by OSHA, MPCA, and DOT for maintaining worker safety

and rules compliance in the workplace, workplace harassment, documentation, and termination. This course also provides students with strategies and skills to effectively recruit, interview, and select the best person from a field of qualified candidates. Methods and techniques will be presented to insure legal and objective and fair employee selection. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1625 Budget Analysis & Cost Control 3 Credits (F/S)
This course is specifically designed to provide students with the management planning and control methods necessary for supervisors to create department budgets and control department costs. These skills are essential for supervisors to be able to understand the role of budgeting in management decision making and use good management planning and control techniques. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1635 Employee Training & Development 3 Credits (F/S)
This course provides students with the skills and strategies necessary to assess training needs, design and prepare a training plan, deliver a training session, and assess transfer of the training. Students will plan, design, and present an actual training session as a course requirement. Particular emphasis will be placed on selection of effective training methods, multiple intelligences learning methodology, and training facilitation. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1655 HRD Capstone Project 2 Credits (F/S)
This course is designed to allow the student to create and implement a workplace project that utilizes knowledge, tools, and skills specific to completed HRD courses. Objectives of the Capstone Project must be created by the student to enhance their workplace skills and must directly relate to course content in the Human Resource Development Certificate component of the Supervisory Management AAS degree program. The "HRD Capstone Project" is to be designed by the student for actual application at their place of work during the semester they are enrolled in the HRD courses. The student will complete the project and make a formal presentation at the end of the semester. (Prerequisites:  ) (2 hrs lec/0 hrs lab/0 hrs OJT)

SMGT1700 Personal Portfolio Design 1 Credit (F/S)
This course will guide students through the creation of an individualized degree plan for the Supervisory Management AAS degree program. It is designed to be the first course taken in the program. Students will assess previous education, prior learning from work and life experiences, and develop a portfolio of prior learning. (Prerequisites:  ) (1 hr lec/0 hrs lab/0 hrs OJT)

Term Course Codes:
(F) = Fall Semester
(S) = Spring Semester
(F/S) = Fall & Spring Semesters
(I) = Intermittent
(Arr) = Arranged

SMGT1705 Accelerated Learning Concepts & Strategies 2 Credits (F/S)

This course will introduce students to accelerated learning methodology, multiple intelligences theory, study group learning strategies, brain based teaching, and provide them with strategies and skills to successfully complete a course of study delivered via accelerated learning methods. Students will work independently and in study groups practicing accelerated learning techniques and complete required assignments and projects. Students will learn to design accelerated methods into workplace training to increase retention and reduce training time. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SMGT2999 Special Topics in Supervisory Management 1-3 credits (I)

Study of special topics in supervisory management. Special course topics will be announced in the class schedule.

Sociology

SOC1111 Introduction to Sociology 3 credits (F/S)

This course involves both an explanation of and active practice in using the sociological perspective to examine the world around us. It introduces Sociology as a discipline and sociological ways of understanding human social interaction and processes such as socialization, deviance, culture/society, and social change. This class teaches the use of Sociology in class via small-group exercises and the use of computers to explore questions about the social world. Students who have already taken SOC110 may not register for credit. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavior Sciences, and (7) Human Diversity. (Prerequisites: ) as identified in Placement Test results) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1112 Comparative Sociology 3 credits (F/S)

This course uses a global perspective to examine the structure of societies, it introduces major social institutions (family, education, political and economic systems, religion and medicine) and systems of social stratification (based on race, sex, class, age, ability/disability, and country of origin) in the U.S. and a range of societies around the world. MTC goal areas: (2) Critical Thinking, (7) Human Diversity, and (8) Global Perspective. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1114 Introduction to Criminal Justice 3 credits (F/S)

This course will explore the American criminal justice system through analysis of its three component parts: law enforcement, the courts, and corrections. MTC goal areas: (2) Critical Thinking, (5) History and Social and Behavioral Sciences, and (9) Ethic and Civic Responsibility. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1116 Introduction to Corrections 4 credits (F/S)

This course will examine the philosophy and history of punishment from the Middle Ages to modern times. The impact of theories concerning corporal punishment, incapacitation, isolation, retribution, rehabilitation, and nontraditional forms of punishment will be explored in relationship to the development of corrections in the United States. Models of treatment such as social, psychological, medical,

behavioral, and biological will be evaluated and compared for effectiveness, as well program models such as community treatment centers, electronic monitoring, home confinement, probation, parole, and supervised release. Judicial, political, and societal factors will be analyzed for their on-going influences on change within the corrections system. (Prerequisites: SOC1111, SOC1112, and ) (4 hrs lec/0 hrs lab/0 hrs OJT)

SOC1118 Correction Law 4 credits (F/S)

This course will address legal and constitutional issues that correctional workers are confronted with on a daily basis. The class will investigate these issues and how it may effect staff and offenders in the private or public sector in local, state, or federal facilities and alternative programs. The course will investigate how the Constitution establishes rights for both state and offenders and how legal interpretations of the Constitution and other laws may impact a correctional setting. Public and political influences on the law and its effect on correctional programs will be addressed. Forms of legal relief for both offenders and staff will be a focus of the course. (Prerequisites: SOC1114, SOC1116, and ) (4 hrs lec/0 hrs lab/0 hrs OJT)

SOC1120 Legal Practices and Procedures in Corrections 3 credits (S)

This class will explore the development of the American legal system addressing the philosophy and history of legal sanctions in the American criminal justice system. The course will focus on the prosecution and defense of crime through the analysis of the classification, definition of crime/laws, and the elements of a crime. The analysis of the prosecution and a finding of guilt will lead to the study of the various common defense strategies used by defendants. (Prerequisites: SOC1118 and ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1125 Social Deviance 3 credits (F/S)

In this course students will explore the origins of deviance and the scope of what is considered deviant, answering the question: is anything inherently deviant? Students will examine deviant subcultures, the medicalization of deviance, aspirations toward deviance by some members of society, and the processes involved in managing a deviant identity. The course explores the various theories of deviance, analyzes the impact of social power on deviant labeling, and integrates a cross-culture perspective. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1130 Crime and Delinquency 3 credits (S)

This course explores behavior in children that society sees as problematic--that is, children misbehave and adults respond by punishing, controlling, or seeing other solutions to the misbehavior. The focus of the course takes a child-centered approach, in recognition that this unacceptable behavior comes from or is directed towards a society that in many ways is not fully reaching the needs and potential of its children. Another component of the course is an examination of the effectiveness of punishment. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1135 Introduction to African-American Culture
2 credits (F/S)

This course is an introduction to the values, traditions, and cultures of the African-American population within the United States. It will explore current views and issues that relate to the lifestyle of the African-American. MTC goal areas: (5) Social Sciences and (7) Human Diversity. (Prerequisites:  ) (2 hrs lec/0 hrs lab/0 hrs OJT)

SOC1140 Marriages and Families **3 credits (F/S)**

This course is an examination of marriage and family as a form of social organization existing within a larger social system. Both the larger social system and differences in individuals are emphasized as factors that create wide diversity in families within each culture and across cultures. Cultural beliefs about and perceptions of “the family” i.e., myths, ideals, and values are critically analyzed. Diverse families are studied in their functioning around intimacy, work, children, violence, marriage, divorce, economics, race, and gender. MTC goals (5) History and the Social and Behavioral Sciences and (7) Human Diversity. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING]) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1145 Race, Class, and Gender **3 credits (F/S)**

This course uses the sociological perspective to explore issues of race, class, and gender as they intersect in the lives of individuals and in society at large. It addresses both disadvantage and privilege and concludes with an examination of social activism. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1150 Introduction to Women's Studies

3 credits (F/S)

This course introduces women's studies by examining the writings of a diverse array of women about topics central to women's studies: stratification/oppression; feminist theories and activism; violence against women; women's history; woman's work; and women's poetry, music, art, theater, literature, and spirituality. It emphasizes the diversity of women's experience and perspectives based on age, race, class, disability/ability, sexual/affective orientation, and global position. MTC goal areas: (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1155 Human Sexuality **3 credits (F/S)**

This course is an introduction to human sexuality as a social behavior in a social context, influenced by both biology and culture. Class discussion examines cross-cultural sexual variation sexual anatomy and functioning, sexual coercion, commercialization, and issues related to sexual orientation, sexual health, variations in sexual behavior within a culture, sexual abuse. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC1160 The Social Impact of Alcohol in Families
2 credits (F/S)

This course examines the social context of alcohol abuse in families. It will focus on the family interactions including role playing, labeling, and survival strategies used by family members. Finally, the course will investigate broader social causes and consequences of alcohol use. (Prerequisites:  ) (2 hrs lec/0 hrs lab/0 hrs OJT)

SOC1165 Patterns of Domestic Violence
2 credits (F/S)

This course examines the social context of violence in a domestic setting. It will focus on the commonalities in strategies used by perpetrators of violence and survival mechanisms common to those victimized. Finally, the course will review the community services surrounding domestic violence. (Prerequisites: SOC1111) (2 hrs lec/0 hrs lab/0 hrs OJT)

SOC1175 Introduction to Gerontology **3 credits (F/S)**

This course presents a behavioral science approach to the emerging complex discipline of gerontology using the biopsychosocial model. The history, development, and growth of gerontology, including significant contributions from several academic disciplines will be examined. Gerontology is the scientific study of the basic theories, principles, ideas and research about the normal aging process and later life. The course will emphasize enhancing the quality of later life and will distinguish between aging changes and changes related to chronic diseases and earlier lifestyle choices. The course will foster an appreciation of human diversity and an understanding of cross-cultural issues in aging. MTC goal areas: (5) Social Sciences and (7) Human Diversity. (Prerequisites:  ) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2120 Social Problems **3 credits (F/S)**

This course uses the topic of social problems to teach sociological concepts and processes. It examines a range of social problems by teaching students to use critical thinking skills to evaluate a variety of writings about social issues. Issues may include, but are not limited to, poverty, racism, sexism, environmental challenges, violence, drug use/abuse, homelessness, physical and sexual abuse, and global issues. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites:  , and college level study skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2121 Social Solutions: The Sociology of Positive Social Change
3 credits (F/S)

The course uses the study of social solutions to teach sociological concepts and processes. It examines the ways in which people have effectively implemented proactive social change. It focuses on the understanding of both sociological research and the social activism popular press. The course utilizes a global perspective on solutions to social dilemmas and case studies of positive social action resulting in social change. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites:  , and college level study skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2122 Sociology of the Community 3 credits (F/S)
The course uses the study of communities to teach sociological concepts and processes. It examines communities throughout the world, noting cross-cultural similarities and differences. This course will investigate problems faced by communities, causes and solutions. We will define the word "community" as it relates to our identity and sense of belonging. We will examine historical trends in communities, including contemporary forms of community created by technology. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (8) Global Perspective. (Prerequisites: [INSERT ICONS FOR COLLEGE LEVEL READING AND WRITING], and college level study skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2170 Sociology of Birth and Death 3 credits (F/S)
This course uses the topics of birth and death to teach sociological concepts and processes. It is an exploration of the social context in which birth and death happen. It examines the beliefs, attitudes, behavioral expectations, and technology surrounding birth and death in different historical periods and different cultures. The course focuses on current U.S. birth and death practices and movements toward reform. MTC goal areas: (2) Critical Thinking and (5) History and the Social and Behavioral Sciences. (Prerequisites: [INSERT ICONS], and college level study skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2171 Sociology of Sport 3 credits (F/S)
This course uses sports and athletics in society to teach sociological concepts and processes. We will consider how sport reflects the norms, values, and practices of other social institutions, such as the family, school, politics, the economy, and the media. We will also analyze how sport fosters inequity or promotes social mobility for groups of individuals in the population. We will examine how sport can encourage resistance and conflict, or stimulate social change beyond the world of sport. We will examine the changing significance of sport throughout history, and compare the function of sport cross-culturally. MTC goal areas: (2) Critical Thinking, (5) History and the Social and Behavioral Sciences, and (7) Human Diversity. (Prerequisites: [INSERT ICONS], and college level study skills) (3 hrs lec/0 hrs lab/0 hrs OJT)

SOC2177 Community Service in Corrections 4 credits (S)
This course is a formal service learning class. It is meant to be taken just before the completion of the Correctional Certificate II. It requires students to provide service to a corrections-related agency for eight hours each week and to participate in classroom group analyses of the service experience for four hours each week. The goal of the course is to integrate the provision of community service with a careful academic examination of the experience. (Prerequisites: [INSERT ICONS] and Corrections Certificate II or equivalent) (4 hrs lec/0 hrs lab/0 hrs OJT)

SOC2779 Community Service Collaboration 2 credits (F/S)
This course is designed to engage students in providing service to identified individuals or groups in order to facilitate the accomplishment of specific learning outcomes. (Prerequisites: SOC1111 or PSYC1010 and one of the following: PSYC1120, PSYC1135, PSYC2130, SOC1112, SOC1145, or SOC2120, or instructor's consent) (2 hrs lec/0 hrs lab/0 hrs OJT) 1

SOC2999 Special Topics in Sociology 1-3 credits (I)
Study of special topics in sociology. Special course topics will be announced in the class schedule.

Spanish

SPAN1010 Beginning Spanish I 5 credits (F)
Beginning Spanish is a grammatical approach to introductory vocabulary and verb tenses with emphasis on vocabulary building, listening comprehension, verbal response and writing skills. MTC goal areas: (8) Global Perspective. (Prerequisites: [INSERT ICONS]) (5 hrs lec/0 hrs lab/0 hrs OJT)

SPAN1020 Beginning Spanish II 5 credits (S)
A continuation of SPAN1010, a first course grammatical approach. (Prerequisites: SPAN1010 or instructor's consent) MTC goal areas: (8) Global Perspective. (5 hrs lec/0 hrs lab/0 hrs OJT)

SPAN1800 Spanish Abroad-Mexico 2 credits (S)
A seven-day study tour and language experience in Mexico. Offered upon sufficient demand. Offered as pass/fail only. MTC goal areas: (6) Humanities and Fine Arts and (8) Global Perspective. (Prerequisites: None) (2 hrs lec/0 hrs lab/0 hrs OJT)

SPAN2010 Intermediate Spanish I 3 credits (F)
Intermediate level reading, writing, and speaking. Readings deal with social and cultural topics of Spanish speaking countries with emphasis on vocabulary building. MTC goal areas: (6) Humanities and Fine Arts and (8) Global Perspectives. (Prerequisites: SPAN1010, SPAN1020 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

SPAN2020 Intermediate Spanish II 3 credits (S)
Intensified study of the Spanish language through listening, speaking and composition. MTC goal areas: (6) Humanities and Fine Arts and (8) Global Perspective. (Prerequisites: SPAN2010 or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

SPAN2050 Conversational Spanish 3 credits (I)
A Spanish course with major emphasis on communication and functioning in the language. It is designed to promote the development of conversational proficiency. Offered upon sufficient demand. May be repeated for up to 6 credits. MTC goal areas: (8) Global Perspective. (Prerequisites: Two years of Spanish or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

SPAN2999 Special Topics in Spanish 1-3 credits (I)
Study of special topics in Spanish. Special course topics will be announced in the class schedule.

College Level Reading = [INSERT ICON]
College Level Writing = [INSERT ICON]

Statistics

STAT2210 General Statistics 3 credits (F/S)

An introductory course in descriptive and inferential statistics for business and pre-professional majors. The following topics will be covered: organizing data, averages and variations around the mean, probability and probability statistics, binomial, normal and sampling distributions, estimations, hypothesis testing, analysis of variance (ANOVA), regression and correlation, and chi-square analysis. MTC goal area: (4) Mathematical/Logical Reasoning. (Prerequisites: MATH0470 or equivalent) (3 hrs lec/0 hrs lab/0 hrs OJT)

STAT2999 Special Topics in Statistics 1-3 credits (I)

Study of special topics in statistics. Special course topics will be announced in the class schedule.

Surgical First Assistant

STFA2000 Pharmacology for the Surgical First Assistant 4 credits (I)

This course is designed to provide advanced knowledge of various routes of drug administration, their effects and side effects. It will encompass a comprehensive knowledge of the many classifications of drugs. Also included will be information on anesthesia methods and agents, uses and application of monitoring devices, postoperative pain control methods, and fluid and electrolyte balances. Emphasis will be placed on legal and safety aspects of drug administration. (Prerequisites: CST and/or RN-CNOR with two years operating room experience; all pre-technical courses, and concurrent enrollment in STFA2002, STFA2004, and STFA2006) (4 hrs lec/0 hrs lab/0 hrs OJT)

STFA2002 Operating Room Practice for the Surgical First Assistant 3 credits (I)

This course will provide advanced knowledge of clinical skills necessary to function in the role of the surgical first assistant in the operating room setting. The student will demonstrate skills necessary to properly position the surgical patient, assess and prepare the skin for surgical procedures, provide visualization of the operative site, assist with hemostasis, apply wound dressings, provide for catheter and drainage placement, and provide for tissue-skin closure utilizing suturing and stapling techniques. The student will have an opportunity to observe and demonstrate advanced clinical operating room practice. (Prerequisites: CST and/or RN-CNOR with two years operating room experience; all pre-technical courses, and concurrent enrollment in STFA2000, STFA2004, and STFA2006) (3 hrs lec/0 hrs lab/0 hrs OJT)

STFA2004 Operating Room Theory for the Surgical First Assistant 4 credits (I)

This course will provide an overview of the total operating room setting as it relates to the role of the surgical first assistant. It will encompass a comprehensive knowledge of aseptic technique as it relates to the surgical setting. The student will develop advanced knowledge of natural body defense mechanisms and wound healing techniques. In addition, students will demonstrate knowledge of ethical and legal considerations, responsibilities for reporting and documenting, and interpersonal communication skills. Students will become proficient with fundamental skills of

hemostasis, drainage systems, bladder catheterizations, suturing techniques, proper patient positioning, skin assessment, and use of special equipment along with prepping and draping techniques. Students will learn and apply computer skills during the course. (Prerequisites: CST and/or RN-CNOR with two years operating room experience; all pre-technical courses, and concurrent enrollment in STFA2000, STFA2002, and STFA2006) (4 hrs lec/0 hrs lab/0 hrs OJT)

STFA2006 Operating Room Procedures for the Surgical First Assistant 3 credits (I)

This course introduces advanced concepts to procedures performed in the operating room. Included in this course are: anatomy and physiology, pathophysiology, diagnostic tests and procedures, and instrumentation/equipment as it relates to a majority of surgical procedures in all surgical specialties. (Prerequisites: CST and/or RN-CNOR with two years operating room experience; all pre-technical courses, and concurrent enrollment in STFA2000, STFA2002, and STFA2004) (3 hrs lec/0 hrs lab/0 hrs OJT)

STFA2008 Operating Room Lab for the Surgical First Assistant 6 credits (I)

This course will provide the student with clinical practice of first assisting skills in the surgical setting. The student will be assigned to a qualified preceptor surgeon who will provide direct clinical supervision and guidance. The student is required to demonstrate proficiency in first assisting skills in 25 major general, 10 minor general, 25 major orthopedic, and 10 minor orthopedic surgeries, along with 10 endoscopic cases and at least 20 cases from two additional specialty areas. (Prerequisites: BIOL1150, BIOL1160, ALTH1410, ALTH1430, STFA2000, STFA2002, STFA2004, and STFA2006) (0 hrs lec/12 hrs lab/0 hrs OJT)

Study Skills

STSK0451 Basic Study Skills 3 credits (F/S)

A fundamental course designed to develop basic study skills. (Prerequisites: Appropriate placement test score in reading) (3 hrs lec/0 hrs lab/0 hrs)

STSK1011 College Survival 3 credits (F/S)

This course provides both first-time and returning students with specific skills and strategies needed to accomplish their academic goals with greater success. Students are introduced to a variety of topics critical to student success: time management, setting priorities, learning styles, campus resources, critical thinking, diversity, motivation, and test taking. (Prerequisites: Appropriate placement test score in reading, or READ0450 with a grade of "C" or better) (3 hrs lec/0 hrs lab/0 hrs OJT)

STSK2000 Credit-based Peer Tutoring 2 credits (F/S)
This course is designed to provide training in the knowledge and fundamental skills useful in diverse academic disciplines. These include: teaching, helping, communication, and problem-solving skills. As a component of the Tutor Training course and tutor practicum, each tutor examines his or her own beliefs and philosophy of ethics regarding tutoring, as well as materials to be included in a tutoring portfolio. These portfolios may be used in job interviews, applications for further education, and for requests for recommendations for employment. Students who successfully complete this course are awarded Level 1 CRLA tutor certification. (Prerequisites: "B" or above average in the discipline which the student wants to tutor. Overall GPA 2.5 and 30 college credits. Must be  and/or math) (2 hrs lec/0 hrs lab/0 hrs OJT)

STSK2999 Special Topics in Study Skills 1-3 credits (I)
Study of special topics in study skills. Special course topics will be announced in the class schedule.

Surgical Technology

SURG1400 Pharmacology for the Surgical Technologist 2 credits (F)

This course is designed to provide knowledge of various routes of drug administration, effects, and side effects. It will encompass a comprehensive knowledge of the many classifications of drugs. Also included will be instruction in the values for fluid and weight measures. Emphasis will be placed on legal and safety aspects of drug administration. (Prerequisites: All pre-technical course requirements. Concurrent enrollment in SURG1411 and SURG1412) (2 hrs lec/0 hrs lab/0 hrs OJT)

SURG1411 Operating Room Practice 4 credits (F)

This twelve-week course will provide an overview of the total operating room setting as it relates to the hospital and patient. It will encompass comprehensive knowledge of aseptic technique as it relates to the surgical setting. The student will have an opportunity to observe and demonstrate fundamental clinical operating room practice. (Prerequisites: All pre-technical course requirements. Concurrent enrollment in SURG1411 and SURG1412) (0 hrs lec/11.5 hrs per week lab/0 hrs OJT)

SURG 1412 Operating Room Theory 5 credits (F)

This twelve-week course will provide an overview of the knowledge required for the role of a surgical technologist. In addition, this course will provide an overview of the total operating room setting as it relates to the hospital and patient. It will encompass a comprehensive knowledge of aseptic technique as it relates to the surgical setting. The student will develop an understanding of natural body defense mechanisms along with methods by which infectious diseases are transmitted, recognized, prevented and treated. The course will include information in relation to robotics, physics and electricity as it relates to the operating room setting. Concurrent enrollment in SURG 1400 and SURG 1411) (Prerequisites: All pre-technical course requirements.) (6.5 hrs lec/0 hrs lab/0 hrs OJT)

SURG1420 Operating Room Lab I 4 credits (F)

In this five-week clinical laboratory course, the student will assist with selected procedures in a hospital setting. The student will implement skills learned in prior Surgical

Technology Theory and lab courses. (Prerequisites: All pre-technical course requirements. SURG1411 and SURG1412) (0 hrs lec/24 hrs lab/0 hrs OJT)

SURG1428 Operating Room Procedures I 2 credits (F)

This five-week course introduces concepts to basic procedures performed in the operating room. Included in this course is: anatomy and physiology, pathophysiology, diagnostic procedures, instrumentation and the perioperative process. (Prerequisites: SURG1400, SURG1411, SURG1412. Concurrent enrollment in SURG1420) (6 hrs lec/0 hrs lab/0 hrs OJT)

SURG1520 Operating Room Lab II 12 credits (S)

This is an advanced clinical lab course. The student will assist with additional selected procedures in a hospital setting. The student will implement skills learned in prior surgical technology theory and lab courses. (Prerequisites: All semester II courses) (0 hrs lec/24 hrs lab/0 hrs OJT)

SURG1528 Operating Room Procedures II 6 credits (S)

This course is a sequel to SURG1428 Operating Room Procedures I. This course deals with specialized surgical procedures. Included will be anatomy and physiology, pathophysiology, diagnostic procedures, instrumentation and the perioperative process. (Prerequisites: All semester II courses) (6 hrs lec/0 hrs lab/0 hrs OJT)

SURG2999 Special Topics in Surgical Technology 1-3 credits (I)

Study of special topics in surgical technology. Special course topics will be announced in the class schedule.

Truck Driving (Over-the-Road)

TDT1800 Basic Vehicle Operation and Control 7 credits (F/S)

This course covers basic instruction in truck-driving techniques, procedures, vehicle inspection and DOT regulations. (Prerequisites: Students must be able to pass and possess a Class A CDL Permit and to pass a DOT regulations) (48 hrs lec/128 hrs lab/0 hrs OJT)

TDT1830 Advanced Driving Techniques 2 credits (F/S)

This course covers defensive driving techniques and opportunity to practice driving skills in an unsupervised setting. (Prerequisites: Passed the students respective state Class A CDL Road test) (8 hrs lec/56 hrs lab/0 hrs OJT)

TDT1850 Truck Driving Internship 4-6 credits (F/S)

This course provides the student with work site experience in which skills and knowledge learned in previous courses may be applied. These internship experiences include safety procedures, personnel procedures, company organization and other employer expectations. Technical skills and knowledge can include Trip Planning, Customer Relations, Dispatch Procedures, and Company policies. (Prerequisites: DOT qualified with a Class A CDL and/or instructor's consent) (0 hrs lec/0 hrs lab/12-18 hrs OJT)

Theater

THTR1100 Theater Production 1 credit (F/S)

A course with supervised practical training in performance and technical production through participation in Lake Superior Theater productions. One credit each semester, but may be repeated six times for a total of six credits. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (1 hr lec/0 hrs lab/0 hrs OJT)

THTR1110 Stage Lighting 3 credits (F/S)

This course is a basic course in stage lighting. Practical experience as well as theory is emphasized. Students will work on the college plays. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1115 Sound Design 3 credits (I)

This course is an introduction to sound design, sound equipment, and effective sound techniques for the stage performance. Students will work with college plays. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1120 Stage Makeup 3 credits (I)

This course is a series of lecture/demonstrations employing the principles of stage makeup for the stage. Different materials and applications will be studied as well as make-up procedures leading to effective characterization. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1125 Costume Construction 3 credits (I)

This course is an introduction to basic techniques, materials, and equipment used to build costumes for the stage. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1130 Set Design 3 credits (F)

An introduction to the art of scene design for the theater. Students will gain theoretical and practical knowledge in the visual presentation of a play, as well as, gain an overview into this specialized art form. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1135 Stage Craft 3 credits (F)

This course is an introduction to the methods of planning, constructing, painting, and shifting stage scenery. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1200 Introduction to the Theater 3 credits (F)

This course examines theater from its early beginnings to its contemporary form, including architecture, scenery, lighting, costuming, literature, criticism, acting, and directing. MTC goal area: (2) Critical Thinking and (6) Humanities and Fine Arts. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1211 Acting I 3 credits (F/S)

This course introduces the student to the process of exploring the inner and outer resources of the beginning actor and bringing these resources to bear upon the art of creating a believable stage image. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: None) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1212 Acting II 3 credits (F/S)

This is an intermediate course in acting for the stage. Emphasis is placed on psychological as well as technical approaches to the actor's craft/art. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: , THTR1211, or instructor's consent) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1240 Introduction to Stage Directing 3 credits (S)

This is an introductory course in stage directing. Emphasis is placed on script selection, research, casting, rehearsing, and play production. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ) (3 hrs lec/0 hrs lab/0 hrs OJT)

THTR1300 Directing Workshop 1-3 credits (I)

This is an advanced theater course intended for the student who is interested in directing for the theater. This course may be taken after course preparation or other significant experience in the theater. MTC goal area: (6) Humanities and Fine Arts. (Prerequisites: ) or instructor's consent) (1-3 hrs lec/0 hrs lab/0 hrs OJT)

THTR2999 Special Topics in Theater 1-3 credits (I)

Study of special topics in theater. Special course topics will be announced in the class schedule.

Selected College Policies

Non-discrimination Policy IB.1.1

Part 1. General Information/Policy

Lake Superior College is committed to the policy that there shall be no discrimination because 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, protected by state or federal law. This includes the requirements of Title VI and VII of the Civil rights Act of 1964; Revised Order 4; Executive Order 11246, 11375; Sections 799A and 845 of the Health Service Act, The Equal Pay Act, and any other act of Congress or federal regulations. Questions should be directed to the Lake Superior College Human Resources office.

It is also the policy of Lake Superior College not to discriminate on the basis of sex in its educational programs, admissions, activities, or employment policies as required by Title IX of the Education Amendments of 1972. Questions should be directed to the Lake Superior College Human Resources office.

Part 2. Procedure Summary

Reporting a Complaint

The individual will contact Mary Youngstrand, Human Services Director, room E2034, 733-7626, m.youngstrand@lsc.mnscu.edu, to discuss a complaint and complete a complaint form. The form is available on the LSC web site in HR Forms and from the designated officers listed at the end of this summary.

- a. Any employee or student aware of a potential violation of the policy (involving a third party) has an obligation to contact a designated officer with the information. The designated officer is responsible to seek out the individual and find out if they need assistance and/or a complaint should be filed.
- b. Potential complainants may voluntarily choose to address the behavior themselves, but are not required to do so before filing a complaint.
- c. The person completing the complaint form will receive a copy of the policy describing the process upon turning in the completed complaint form.

Processing a Complaint

The designated officer will review the complaint with the lead investigator for appropriateness and the need for an investigation with five days of receiving the initial completed complaint form. The investigator will:

- a. Contact the person about whom the complaint has been filed (respondent) in writing including a warning about retaliation and provide a copy of the complete policy and process.
- b. Determine whether a full investigation is warranted or whether other methods can be utilized to resolve the complaint (training, coaching, etc.).
- c. Inform the respondent and complainant as to whether a full investigation is going to take place.

Investigation

The investigator will contact all witnesses and document all interviews and other evidence. Tennessee Warnings will be issued to all witnesses and parties involved in providing evidence. The findings will be summarized in a prescribed format and forwarded to the appropriate Vice President as the decision maker within 35 days of the date of the completed complaint form.

Decision Maker

The decision maker (appropriate Vice President) will review the investigation, conduct additional interviews if necessary, and make a decision as to whether the policy has been violated within two weeks of receiving the completed investigation. The decision step includes providing a written response to the complainant and respondent, including the provision of any disciplinary action or resolution steps, if appropriate. A copy of the decision will be provided to the lead investigator for the permanent file housed in the HR office.

Request of Reconsideration

A respondent or complainant may request a reconsideration of the decision to the President of the college within ten days of receiving the decision in writing. (Students suspended 10 days or more also have the right to a contested case under Minnesota Statutes) The President reviews the decision, the investigation, and any additional information requested and responds in a "reasonable time frame."

Complaint Processing Timelines

Date complaint form completed

	Start date
Investigator determines action and notifies parties	5 days
Investigator gathers evidence and prepares report	30 days
Decision maker reviews, decides, and notifies parties	10 days
Total days from start to completion	45 days

Request for Reconsideration

10 days from notice

President's Reconsideration decision

"Reasonable time frame" per policy

Notification to DOER of final disposition

30 days from final decision

Sexual Harassment/Sexual Violence Policy: IB.1.3

Lake Superior College will not tolerate sexual harassment or sexual violence toward its students, faculty, or staff. In all its forms, sexual harassment and assault violate fundamental rights and the law, and are causes for disciplinary action, including dismissal or expulsion. The college's concern is to provide appropriate support to the victim while recognizing the rights of the accused. Every effort will be taken to ensure confidentiality and provide effective remedies, including protection of victims and witnesses from retaliation. Sexual harassment is not the victim's fault.

Sexual harassment is a form of sex discrimination which is prohibited by state and federal law. 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 other events or activities sanctioned by the college or university; 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 university; or
3. such conduct has the purpose or effect of threatening an individual's employment; interfering with an individual's work or academic performance; or creating an intimidating, hostile, or offensive work or educational environment.

Sexual harassment may occur in a variety of relationships, including faculty and student, supervisor and employee, student to student, employee to employee, and other persons having business with or visiting the educational environment. Sexual harassment may occur when it is directed at members of the opposite gender or when it is directed at members of the same gender. It includes, but is not limited to:

1. unwelcome pressure for sexual activity
2. unwelcome, sexually-motivated or inappropriate patting, pinching, or physical contact; physical contact may be appropriate, if necessary to restrain individuals to avoid physical harm to persons or property
3. demands for sexual favors or promises of preferential treatment with regard to an individual's employment or educational status accompanied by implied or overt threats concerning an individual's employment or educational status
4. unwelcome behavior or words of a sexual nature directed at an individual because of gender

Acts of sexual violence are criminal behaviors and create an environment contrary to the goals and missions of the system and colleges and universities. Acts of sexual violence include:

1. forcible acts, which include non-consensual sexual contact, and/or sexual contact in which the victim is incapable of giving consent (such as when the complainant is under the influence of alcohol or drugs);
2. nonforcible sex acts such as incest and statutory rape; and
3. the threat of sexual violence. Sexual violence may include but is not limited to: touching, patting, grabbing, or pinching another person's intimate parts, whether that person is of the same sex or the opposite sex; coercing, forcing, or attempting to coerce or force the touching of anyone's intimate parts; coercing, forcing, or attempting to coerce or force sexual intercourse or a sexual act on another; threatening to force or coerce sexual acts, including the touching of intimate parts or intercourse, on another.

Sexual orientation discrimination is prohibited by state law.

Sexual orientation discrimination is defined as conduct that is directed at an individual because of his/her sexual orientation and that subjects the individual to different treatment by agents or employees so as to interfere with or limit the ability of the individual to participate in, or benefit from, the services, activities, or privileges provided by the system, colleges and universities or otherwise adversely affects the individual's employment or education.

Sexual orientation harassment is a form of sexual orientation discrimination which is prohibited by state law. Sexual orientation harassment is defined as verbal or physical conduct that is directed at an individual because of his/her sexual orientation and that is sufficiently severe, pervasive or persistent so as to have the purpose or effect of creating a hostile work or educational environment. Sexual orientation harassment may occur in a variety of relationships, including faculty and student, supervisor and employee, student and student, staff and student, employee and employee, and other relationships with other persons having business at or visiting the educational environment.

Procedure for Dealing with Discrimination or Harassment

If you have experienced discrimination or harassment, know that you do not need to suffer in silence. You can take action for yourself or for someone else facing these situations.

The Informal Investigation

First, you may pursue your complaint through an informal investigation. The process for pursuing this method is below.

1. Contact Mary Youngstrand, Human Services Director, room E2034, 733-7626, m.youngstrand@lsc.mnscu.edu, and register your complaint. File the complaint as soon as possible after the most recent incident.
2. If the complaint requires an investigation, the appropriate staff member will contact the person against whom you filed the complaint. An informal investigation may occur without identifying you as the person who made the complaint. The appropriate staff member can withhold your identity if this makes an acceptable resolution more likely.
3. If the charge is not resolved to your satisfaction, you may proceed to file a formal charge, or you may pursue the complaint through the Minnesota Department of Human Rights or the Courts. The informal procedure must be concluded within 40 days.

The Formal Investigation and Meeting

Sometimes the appropriate staff member cannot resolve the complaint through the informal process. In some instances, the appropriate staff member may feel that recourse at the informal stage would be ineffective. In these cases, you may use the formal procedure.

The Formal Written Statement

To begin the formal procedure, you must present a written statement with the following:

1. the nature of the complaint
2. the facts upon which you have based the charge
3. the resolution you are requesting

You must file this statement with Mary Youngstrand, Human Services Director, room E2034, 733-7626, m.youngstrand@lsc.mnscu.edu, within ten days of the end of the informal process. The person charged with the complaint will have an opportunity to respond to the statement.

Violence Prevention Policy IB.1.4

Purpose

This document explains the policy and plan of Lake Superior College (LSC) to prevent workplace violence. The policy and plan have been developed in accordance with State law. It is the goal of Lake Superior College to achieve a work environment which is free from threats and acts of violence, whether perceived or real. The College will work to provide a safe workplace environment for all employees, students and visitors. Each employee, student and visitor will be treated with respect and dignity. LSC will not tolerate workplace violence of any type, from any source, including threatening or violent actions by (a) employees, whether directed against students, visitors, or other employees; or (b) students or visitors, whether directed against employees or other students or visitors.

State Law

In 1992, the Minnesota Legislature adopted the following into State statute (sections 1.50 and 15.90): “The State of Minnesota adopts a policy of zero tolerance of violence. It is State policy that every person in the State has a right to live free from violence.”

In furtherance of that policy, Minnesota Statute 15.86 mandated each agency of State government adopt a goal of zero tolerance of violence in and around the workplace. Each such agency was also required to develop a plan describing how the agency will seek to eliminate any potential for violence (a) in and around the agency workplace, and (b) affecting the attitudes and behavior of the people whom the agency serves or regulates.

Definitions

In 1994, the Minnesota Legislature’s Violence Prevention Advisory Task Force endorsed this definition of violence as a reference for those working on violence prevention issues: “Violence is the abusive or unjust exercise of power, intimidation, harassment, and/or the threatened or actual use of force which results in or has a high likelihood of causing hurt, fear, injury, suffering, or death.”

Workplace violence generally falls into three categories: (a) a violent act or threat by a current or former employee, supervisor, or manager, or someone who has some involvement with a current or former employee, such as an employee’s spouse, significant other, relative, or other person who has had a dispute with an employee; (b) a violent act or threat by someone receiving service from the agency; or (c) a violent act by someone unrelated to the work environment.

Violent acts are frequently the end result of longstanding disputes or unresolved arguments which can begin with a disrespectful comment or action and escalate to more serious levels of

violence. A continuum of violence often begins with such acts as name-calling or other negative comments which progress to pushing, shoving, or shouting that can continue into physical assault.

The complete workplace climate or environment must be assessed in order to prevent violence, rather than merely respond to incidents or violence in the workplace. Factors external to the workplace may impact the safety of the workplace environment, e.g., the spillover effects of family violence.

Responsibility for Implementation

Supervisors and Administrators have a primary responsibility for ensuring a safe work environment. They are specifically empowered to take immediate action to resolve or stabilize violent situations in the workplace, and to protect people from harm. Supervisors will ensure appropriate incident response resources are notified immediately when a threat is made or a violent incident occurs. They will also ensure appropriate disciplinary responses to workplace violence and aggression are made.

Section 1

It is the policy of LSC and the responsibility of its employees, students, and visitors to maintain a workplace free from threats and acts of violence. LSC will work to provide a safe workplace for its employees, students, and visitors.

Each employee, student, and visitor with whom we come into contact in our work at LSC deserves to be treated with courtesy and respect. That will be accomplished by encouraging mutual respect among all individuals, establishing open and honest communication, and enforcing zero tolerance for any type of violent behavior.

LSC will work, through information, training, and enforcement, to foster a work environment and culture that is devoid of violence for employees, students, and visitors. LSC’s policy includes:

- (1) LSC will actively work to prevent and eliminate acts of work-related violence. Welcoming Environment: LSC will endeavor to create and maintain a work environment that is caring and supportive, and try to assist employees in positively resolving problems, losses, and/or other stressors that arise in their lives.
- (2) LSC will clarify and enforce expectations regarding behaviors for employees, students, and visitors. Conduct Codes and Discipline: Standards of conduct at LSC will be clear, communicated, and consistently enforced; and discipline will be used fairly, consistently, and appropriately to deal with instances of unacceptable behavior.

Leadership: All employees will be expected to promote positive behavior, and to lead by example in the zero tolerance of workplace violence.

Language and Behavior: LSC will not tolerate rude, offensive, insulting, derogatory, hateful, threatening, or violent language or behavior among its employees, students, or visitors, including, but not limited to, such things as name-calling; heated arguments;

obscene language or gestures; throwing things; harassment; pushing; stalking; insulting or slighting comments; bullying; hazing; unjust or unwarranted exercise of power; negative racial or sexual comments; assault; inappropriate touching; carrying weapons; making “fun of” or showing disrespect for others; offensive, derogatory, or inappropriate references to others; or any other form of language or behavior which intimidates, is offensive to, or manifests hostility toward another, whether that language or behavior occurs on campus or at LSC functions away from the campus.

(3) LSC will respond promptly, positively, and aggressively to deal with threats or acts of violence. That response will include timely involvement of law enforcement agencies when appropriate.

Incident Response: LSC’s Director of Security will be responsible for coordinating responses to violent or threatening situations in the workplace. The Director will (a) assist in the development of training programs, (b) serve as a resource referral agent and information source for supervisors and others with regard to workplace violence concerns, and (c) respond as needed to incidents involving threats or acts of workplace-related violence. This will require the Director to (a) perform situation assessments and evaluations, (b) assist with attempts to de-escalate and properly manage potentially violent situations, (c) facilitate and coordinate response actions of appropriate resources, both internal and external, and (d) coordinate appropriate follow-up action, e.g., investigation, victim assistance, preventive and corrective actions.

(4) LSC hereby adopts, and will work to enforce, a policy of prohibiting possession of firearms and other dangerous weapons in the workplace.

Dangerous Weapon Prohibition: Effective immediately, the possession of any dangerous weapon at LSC by any person, other than official firearms carried by a law enforcement officer, is strictly prohibited. Employees, students, and visitors are prohibited from possessing any dangerous weapon while on campus or at LSC off-campus events. The category “dangerous weapon” includes, but is not limited to: any weapon which, per applicable law, is illegal to possess; any firearm, loaded or unloaded, assembled or disassembled, including pellet, “BB” and stun guns (electronic incapacitation devices); replicate firearms, as defined in Minnesota Statute 609.713; knives, and other similar instruments, bows, cross-bows, and arrows; explosives and explosive devices, including fireworks and incendiary devices, and any other item commonly used, or primarily intended for use as, a weapon; any object that has been modified to serve as, or has been employed as, a dangerous weapon; or any other item considered in the professional judgment of the Director of Security to be, or have the potential to be, a dangerous weapon.

(5) Incidents of work-related threats or acts of violence will be treated seriously by LSC. Reports of all such acts will be promptly investigated, and management will take appropriate and necessary action to address each incident.

Incident Reporting: All incidents of threats or acts of violence are to be immediately reported to the area supervisor and the Director of Security. Reports must fully detail the specific incident and identify all persons involved, including witnesses. All reports will be fully investigated by the Director of Security, who will provide a full report to LSC’s president, including a follow-up on the response action taken.

Critical Incidents Stress Debriefing: LSC will develop and implement procedures for dealing with critical incidents, i.e., any incident (a) involving an employee which results in death or substantial bodily harm to an employee or member of the public, (b) in which deadly force, as defined in Minnesota Statutes 609.066, Subdivision 1, is used by or against an employee, or (c) deemed serious enough by circumstances to warrant investigation and review. All critical incidents will be reported to the immediate supervisor and the Director of Security, who will follow the reporting procedures for violent acts. The critical incidents procedures will also include appropriate responses, e.g., leave, counseling, relocation or reassignment.

(6) LSC will take strong disciplinary action, up to and including discharge from State employment, against employees of LSC who are involved in the commission of work-related threats or acts of violence.

(7) LSC will support criminal prosecution of those who threaten or commit work-related violence against its employees, students, or visitors.

(8) Pursuant to Minnesota Statute 15.86, this policy does not create any civil liability on the part of the State of Minnesota.

(9) LSC will provide information and training for employees, students, and visitors to foster a work environment that is safe, respectful, proactive, and responsive to threats or acts of violence.

Staff Training: All employees will be provided with training in how to deal with workplace-related threats and acts of violence. That training will focus on threat awareness; identifying, preventing, and de-escalating violence; appropriate responses to threats and acts of violence; and identification of resources which are available for use once a potential problem has been identified or an incident has occurred. Assessment of additional training needs for employees will be made upon request by the area supervisor, and appropriate training programs will be developed and presented. Other training and information that foster a positive work environment, such as stress reduction, conflict management, and confronting and dealing with unacceptable behavior, will be made available.

Employee Counseling and Assistance: LSC will encourage use of the Employee Assistance Program (EAP), an assessment, short-term, counseling and referral agency. While supervisors, union representatives, or family members may encourage employees to seek help from EAP, the decision to use the services is voluntary. Employees may also choose to seek assistance from private health services to deal with pressures, stress, emotional problems or other personal issues which could, if ignored, lead to threats or acts of violence.

Safety Promotion: Information and instruction will be provided or posted for employees, students, and visitors regarding appropriate responses to potential safety threats, e.g., evacuation routes in the event of fire or other emergency. An “after hours” policy will be developed and disseminated to all employees, detailing essential security and safety measures. A parking lot escort service has been implemented and posted for all students and employees.

Valuing and Respecting Diversity: It is LSC’s policy and practice to value and respect individual differences among people. Harassment of any person in the workplace is strictly prohibited.

Harassment can be any behavior which is unwelcome, personally offensive, insulting, or demeaning, when (a) submission to such conduct is explicitly or implicitly made a term or condition of an individual's employment, (b) submission to, or rejection of, such conduct is used as the basis for employment decisions affecting such an individual, or (c) such conduct has the purpose or effect of unreasonably interfering with an employee's performance, or of creating an intimidating, hostile, or offensive working environment. Harassment and discrimination are serious concerns, incidents of which may, if not corrected, result in workplace violence. The Administration will treat reports of harassment and discrimination seriously; complaints will be promptly investigated; and, if necessary, appropriate disciplinary action will be taken.

Plan Distribution

Copies of this policy and plan have been distributed to employees, posted on employee and student bulletin boards, and included in the electronic College Policy Manual. Revisions of policies will be re-posted electronically announced by a special electronic notification to all employees. Supervisors will be responsible for informing employees of the policy and plan, and for enforcing compliance. The policy and plan is described in the Employee Handbook and is discussed at employee orientation. A copy of the policy and plan will also be available in the Human Resources office.

Reasonable Accommodations Students with Documented Disabilities Policy IB.4.1

Part 1. General Information

The reasonable accommodation policy implemented by Lake Superior College is based on the policies, definitions, and guidelines established by the Board of Trustees of Minnesota State Colleges and Universities (MnSCU).

Access for Students with Disabilities

Contact: Office for Students with Disabilities, Georgia Robillard, Disabilities Services Coordinator, Room E2114, (218) 733-7650 voice, (218) 722-6893 TTY, g.robillard@lsc.mnscu.edu.

Part 2. Definitions

Subpart A. An individual with a disability:

1. Any person who has a physical or mental impairment which substantially limits one or more of such person's major life activities,
2. Any person who has a record of, history of, or has been classified as having a mental or physical impairment that substantially limits one or more major life activities, or
3. Any person who is regarded as having such an impairment, which means:
 - a. Has a physical or mental impairment that may not substantially limit major life activities but that is treated by others as constituting such a limitation,
 - b. Has a physical or mental impairment that substantially limits one or more major life activities only as a result of the attitudes of others toward such impairment, or
 - c. Has no impairment but is treated by others as having such an impairment.

Subpart B. Personal devices and services:

The Office for Students with Disabilities (OSD) does not provide personal devices or services that may pose undue financial or administrative burdens. The OSD does not provide assessment services that attempt to diagnose various disabilities or provide funding for students to receive off-site testing. Diagnostic assessment referrals and information are available in the OSD.

Examples of personal devices and services include wheelchairs; individually prescribed devices, such as prescription eyeglasses or hearing aids; readers for personal use or study; personal computers; or services of a personal nature, including assistance in eating, toileting, or dressing.

Subpart C. Qualified individual:

A student who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for receipt of services or participation in a system office, college, or university program or activity. Essential eligibility requirements include, but are not limited to, academic and technical standards requisite to admission or participation in an educational program or activity.

A student who qualifies for services through the OSD must have supporting documentation from a medical doctor reviewed and on file that supports the nature of the disability that substantially limits his/her ability to function in the academic setting. Documentation of a disability must provide the following:

1. Identification of the nature and severity of the student's disability.
2. Specific information regarding the manner that the disability affects the student.
3. Description of the current course of treatment, if any, including medications and side effects, and the prognosis of the disability.
4. Suggestions and recommendations regarding possible accommodations.

Part 3. General Access Policy

Lake Superior College shall post notices in an accessible format to the public describing:

1. The prohibition against discrimination, and
2. The contact for requesting reasonable accommodation or information.

Part 4. Reasonable Accommodations to Ensure Access to Programs, Services, and Activities

Lake Superior College shall make reasonable accommodations to ensure access to programs, services, and activities as required by law. Access means that a qualified student with a disability will not be excluded from participation in or be denied the benefits of the services, programs, technological access, or activities, nor will the individual be subjected to discrimination. Reasonable accommodations may include modifications to rules, policies, or practices; the removal of architectural, communication, or transportation barriers; provision of auxiliary aids; or the provision of equally-effective programs, services, or activities. In accordance with the Americans with Disabilities Act, accommodations will not be provided 1) for personal devices or

services even though the individual may be a qualified individual with a disability, or 2) that result in a fundamental alteration in the nature of a service, program, or activity or in undue financial or administrative burdens.

Part 5. Offered and/or Sponsored Services or Activities for Qualified

Students with Disabilities

Lake Superior College has a responsibility to provide access to services and/or activities that are operated or sponsored by the college. Such access shall be provided in a reasonable manner as required by law. At a minimum, the following must be offered to qualified students with disabilities:

1. Support, counseling, and information services that may include support groups, individual counseling, career counseling, assessment, and referral services,
2. Academic assistance services that may include assistive devices, early registration services, early syllabus availability, course selection and program advising, course work advising, testing assistance and modification, and tutoring, and
3. Coordination services that may include personnel acting on the student's behalf and serving as the primary contact and coordinator for students needing services, assistance in working individually with faculty and administrators, intervention procedures, and grievance procedures.

Part 6. Procedure

Students who qualify for disability-related services at Lake Superior College must meet with the Coordinator of the OSD to request services. It is suggested that students meet with the Coordinator at least two weeks prior to the beginning of each term. The development of academic accommodations often requires ample preparation time, and late requests may not be honored in a timely manner.

Students who request disability services must:

1. Complete an Office for Students with Disabilities request form.
2. Provide the Coordinator with the documentation of the disability or sign a Release of Information form whereby the Coordinator can obtain the documentation materials.
3. Allow the documentation of a disability to be reviewed and maintained in a confidential file or be willing to undergo diagnostic testing to determine the eligibility of services.
4. Schedule an appointment with the Coordinator to review the information and develop an accommodation plan.
5. Meet with the Coordinator each term to update the accommodation plan, and notify the Coordinator if the nature of the disability changes that may require revisions to the accommodation plan.

For information regarding reasonable access and accommodations, contact Georgia Robillard, in room E2114, Coordinator of the Office for Students with Disabilities, Lake Superior College, 2101 Trinity Road, Duluth MN 55811, (218) 733-7650 or TTY/(218) 722-6893.

The information contained in this notice can be made available in alternative formats, such as large print, Braille, or audiotape by contacting Georgia Robillard, in room E2114.

Titles VI, VII and IX Policy: IB.5.1

Lake Superior College is committed to the policy that there shall be no discrimination because 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 protected by state or federal law. This includes the requirements of Title VI and VII of the Civil Rights Act of 1964; Revised Order 4; Executive Order 11246, 11375; Sections 799A and 845 of the Health Service Act; The Equal Pay Act; and any other act of Congress or federal regulations. Questions should be directed to the Lake Superior College Human Resources Office.

It is also the policy of Lake Superior College not to discriminate on the basis of sex in its educational programs, admissions, activities, or employment policies as required by Title IX of the Education Amendments of 1972. Questions should be directed to the Human Resources Office.

Student Associations Policy II.1

Part 1. Establishment

In accordance with MnSCU Policy 2.1 Campus Student Associations, Lake Superior College recognizes the LSC Student Senate as the official body for student representation on campus.

Part 2. Duties

The purpose of the Student Senate is to work to improve the quality of education and to assist in the development of student life activity.

1. The Student Senate shall develop a constitution that defines a fair selection process for student representatives and the ratification process for the student government.
2. The Student Senate has the exclusive right to recommend to the College President the chartering of student clubs and organizations on campus.
3. The Student Senate shall attempt to fill committee openings with members representative of all the college clubs and organizations.
4. The Student Senate shall consider not only campus issues, but state and national issues and/or legislative actions.

Part 3. Appeal

Decisions made by the LSC Student Senate may be appealed by submitting in writing the decision made by the LSC Student Senate and the reason for the appeal to the Vice President of Student Services.

State Residency Requirements Policy II.2

Determination of Minnesota Residency

Students may establish eligibility for in-state tuition by demonstrating domicile in Minnesota before the beginning of any term. Students have the burden of proving domicile for the purpose of in-state tuition. Domicile is the place to which a person intends to return after temporary absences. A person may have only one domicile at a time.

1. Students who seek to qualify for in-state tuition must first meet the following threshold requirements:
 - a. Students must have resided in Minnesota for at least one calendar year immediately prior to applying for in-state tuition.
 - b. Residence in Minnesota must not be merely for the purpose of attending college or university.
2. Each of the following additional facts and circumstances will be considered when responding to a petition for in-state tuition (no one of these factors is either necessary or sufficient to support a claim for in-state tuition).
 - a. Continuous presence in Minnesota during the period when not enrolled as a student
 - b. Sources of financial support are generated within Minnesota
 - c. Domicile in Minnesota of family, guardian, or other relatives or persons legally responsible for the student
 - d. Ownership of a home in Minnesota
 - e. Permanent residence in Minnesota
3. The following circumstances, standing alone, shall not constitute sufficient evidence of domicile to affect eligibility for in-state tuition under these regulations, but may be considered as part of the demonstration of the fact and circumstances listed above:
 - a. Voting or registration for voting
 - b. The lease of living quarters
 - c. A statement of intention to acquire a domicile in Minnesota
 - d. Domicile of a student's spouse in Minnesota
 - e. Other public records, e.g., birth and marriage records

Resident status shall be determined at the time of each registration according to the permanent residence of the student's parents (or guardian if approved by chancellor or designee) for students under 21 years of age, and according to the permanent residence of the student if 21 years of age or older. The following exceptions apply:

1. Any student who has graduated from a Minnesota high school within two calendar years of application for admission shall be granted resident status.
2. Any student who has graduated from a Minnesota high school and has resided in Minnesota continuously since graduation shall be granted resident status. Services in the Armed Forces of the United States shall not be considered a disruption of continuous residence.
3. Any student who has been employed full time in Minnesota for one year immediately prior to the date of entrance to college shall be granted resident status, providing all income derived from such employment is subject to taxation by the State of Minnesota.
4. The spouse of a Minnesota resident, as that phrase is defined herein, shall be granted resident status provided that this person is living with the spouse, and that the couple's place of residence is within the State of Minnesota. This rule shall apply regardless of the age of either spouse.
5. A student in the armed services in Minnesota, and the spouse and children of that student, shall be granted residence status.
6. Any alien who is 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 be documented by a contract or copy of the tax return from the previous year, and the employment visa. This status shall also be granted to the spouse and children of the employee.

7. American Indians, of 50% Indian blood, born in Canada, are to be considered residents for the purpose of registration.
8. An individual (and the spouse and dependents of an individual) who is a permanent resident of the United States and has 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 status.

Student Involvement In Decision Making Policy II.3

Part 1. General

Lake Superior College values student participation and involvement. Student representatives are a part of decision making and serve on college committees where appropriate. Some issues require ongoing student participation, and other issues require student review or consultation. The college president shall:

- Meet with the campus student association at least twice per semester to discuss issues of mutual concern,
- Inform the campus student association of the subject of scheduled reviews or consultations at least a week in advance except under very unusual circumstances as reported to the Chancellor,
- Structure the consultation process to provide adequate time for students to be able to discuss and consider an issue prior to any proposed recommendation.

Part 2. Student Participation

Student representatives shall be selected by the LSC Student Senate and shall have the opportunity to participate in policy development and/or the decision-making process. Student representation shall be equal to that of any other constituent group.

Part 3. Exceptions

Exceptions to this policy include the following:

1. The Student Life Committee, which shall consist of a minimum of two-thirds student representation.
2. More than equal constituent representation can serve on any one committee with authorization from the college president or designee.
3. Committees established for the evaluation of personnel.
4. Committees established under collective bargaining agreements.
5. Management teams and executive committees of Lake Superior College.

Part 4. Review and Consultation

To provide a mechanism for student review and consultation, the Lake Superior College administration meets regularly with student representatives appointed by the campus student association. The purpose of these meetings is to provide information and to exchange views and concerns among administrators and students.

Subpart A. Review

A review is an information report by the administration and includes an opportunity for students to ask questions on the information presented. The review process is used to inform the student association of an issue of potential concern to the students. Prior to the meeting, the student association is notified of the agenda items.

Subpart B. Consultation

Consultation means that the administration seeks an opinion from the campus student association and considers that information in the decision-making process. Consultation includes presentation of materials, discussion, and an opportunity for students to ask questions. The consultation process is used to gather student input and/or recommendations and can provide a forum for developing agreements between the administration and the student association. Prior to the meeting, the student association is notified of the agenda items. Necessary background materials are provided in advance of the meeting except under very unusual circumstances as reported to the Chancellor. If a resolution or agreement is proposed, the student association shall have a reasonable amount of time to discuss and consider the issue internally.

When a Lake Superior College proposal requiring consultation is to be considered by the Board of Trustees, the college president shall submit an authorized letter to the Office of the Chancellor from the campus student association prior to the first reading, stating the level of consultation and any position taken by the association on the issue, except under very unusual circumstances as reported to the Chancellor.

Student Organization Posting Policy Policy II.8.1

Part 1. Student Organization Posting Policy

All boards available for student posting will be cleared on the first business day of each month. All affected bulletin boards will contain the above statement.

Part 2. Student Organization Posting Policy

All Lake Superior College student organizations and clubs must obtain approval from the Student Life Director in order to post announcements, information, etc. in designated posting areas. (This does not include departments posting on their department bulletin boards or in designated posting areas.) Posted materials shall be of good quality, clean, and may not in any way discriminate, harass, or infringe on anyone's rights in accordance with MnSCU or Lake Superior College policies. All posters, flyers, banners, and table tents must be approved through the Student Life Center. Students who wish to post items for individual purposes can place posters in areas designated as free posting areas, or must obtain approval through the Student Life Center for placement on student organization's designated areas. Off-campus events information may be placed on the designated community bulletin board. Any legal liability or damage resulting from the posting will be the sole responsibility of the person, organization, or group sponsoring the posted material.

1. Posters/Flyers
 - a. All posters must contain the following information: event, time, place, price, sponsor, and to whom it is open.
 - b. Posters, regardless of shape, may not exceed 14" x 22".
 - c. All sale posters/flyers must be posted on bulletin boards marked items for sale throughout the campus.
2. Banners

Banners can be placed only in banner-designated areas. These areas can be reserved by student organizations in advance.
3. Table Tents

Table tents are reserved only for LSC departments, student organizations/clubs, and off-campus organizations that have been invited to provide a service to the LSC community.

 - a. Table tents may be placed in the commons. Contact the Student Life Director for approval.
 - b. Table tents may not exceed 4.25" x 5.5".
 - c. Table tents can be placed for a maximum of three days.

Part 3. Responsibility

The Student Life Director will enforce this policy.

Part 4. Background/Rationale

The scattering of various posters, flyers, and banners affects the appearance of Lake Superior College. LSC must maintain an atmosphere consistent with that of a higher education institution. To insure that the aesthetics of Lake Superior College are kept at the desired level, a posting policy should be established. This policy shall in no way infringe upon the students' freedoms as expressed in the LSC Student Handbook, Student Rights and Responsibilities, or the students' freedom of speech. The main purpose of this policy is to ensure that all students and student organizations have an open space to display while maintaining campus aesthetics.

Posting Areas

- There are 16 bulletin boards on the LSC campus that are currently being used by departments or students.
- There are 4 recommended free posting areas.
- There are 13 recommended student organization posting areas.
- There are 9 recommended banner posting areas.
- There are 30 tables in the commons that can be used for table tents.
- It is recommended that a bulletin board be placed at the east entrance of LSC.

Part 5.

This policy shall in no way infringe upon the students' freedoms as expressed in the LSC Student Handbook, Student Rights and Responsibilities, or their freedom of speech.

Student Stipends Policy II.8.2

Part 1. General

Stipends shall be awarded to students who demonstrate leadership and/or outstanding contributions to Lake Superior College. All stipends shall be awarded as credits. Stipends shall be financed by the Student Life activity fee, and allocated by the Student Life Committee. The Student Senate shall establish a special committee for the distribution of stipend credits.

Part 2. Stipends

Lake Superior College shall award 31.5 stipend credits each semester, for a total of 63 stipend credits for the academic year. These stipend credits shall be awarded to students on a semester basis. The LSC Student Senate shall distribute these stipends at the end of each semester following the procedures established in this policy. The Student Life Committee may award additional stipend credits in excess of the 63 stipends authorized by this policy.

- 1.The Student Senate will be allocated 33 stipends.
- 2.The Student Body will be allocated 30 stipends.

Part 3. Criteria

Stipend credits shall be distributed following the criteria below:

- 1.Stipend recipients must obtain a C grade or better for each stipend credit received.
- 2.Stipends shall be awarded at the end of each semester.
- 3.Unused stipend credits shall be carried forward to the next semester.
- 4.Stipend credits may not be carried over from year to year.
- 5.The Student Senate President shall receive a minimum of six and no more than 10 stipend credits to be determined by the stipend committee each semester.
- 6.None of the six stipend credits intended for the Student Senate President may be awarded to any other individual.

Part 4. Procedure

- 1.The Student Senate shall establish a committee to distribute stipend credits. The committee shall consist of four Student Senate members, two student body members, to faculty members (one LSCFA and one UTCE), and one staff member.
- 2.The committee shall meet at the end of each semester after the grades have been posted.
- 3.The committee shall receive nominations from LSC students, faculty, and staff for the purpose of distributing stipend credits.
- 4.Upon receiving the nominations, the committee shall review all nominations.
- 5.The committee shall determine stipend credits awards by ballot.
- 6.The committee shall submit all awards to the Student Life Director for processing.

Satisfactory Academic Progress Policy II.9.1

Part 1. Satisfactory Academic Progress

Lake Superior College requires that students make satisfactory academic progress towards a degree, diploma or certificate to remain in good standing. Additionally, federal law requires that a recipient of state or federal financial aid make satisfactory academic progress towards a program (AA, AAS, AS degree, diploma or certificate) to remain eligible for aid.

Part 2. Standards

Students bear primary responsibility for their own academic progress and for seeking assistance when experiencing academic difficulty. Students are encouraged to keep a file of their grades and transcripts.

A. Requirements.

Grade Point Average: All program students are required to maintain the minimum GPA of 2.0

Completion Rate: All program students are required to earn a minimum of 67% of cumulative registered credits.

B. Implementation

Academic progress will be monitored as follows:

- All program students with registered credits during a term will be evaluated at the end of the term.
- Any program student who fails to meet the minimum satisfactory academic requirements for one term will be placed on probation for one term, commencing immediately.

Terms of Probation

Standards for students who are on probation are defined as follows:

- 2.5 minimum term GPA and 100% term completion, or
- Cumulative GPA of at least 2.0 and cumulative completion rate of at least 67%.

Students who meet the term standards as defined above but have not met the cumulative standards will remain on probation.

Students who fail to meet the terms of probation will be suspended, commencing immediately. For first-time suspension, please refer to the chart below to determine the duration of the suspension period:

<u>Suspended at end of:</u>	<u>Returning term:</u>
Fall Semester	Following Fall Semester
Spring Semester	Following Spring Semester
Summer Semester	Following Spring Semester

Students may appeal to request an earlier return.

For a second or subsequent suspension, the student may not enroll for two full semesters (excluding summer) and must file a "Suspension Appeal" to request to return. Please refer to the chart below:

<u>Suspended at end of:</u>	<u>Returning Appealed Term:</u>
Fall Semester	Spring semester (two semesters after Fall suspension)
Spring Semester	Fall semester (two semesters after Spring suspension)
Summer Semester	Fall semester (two semesters after Summer suspension)

Students returning from suspension remain on probation until meeting the cumulative standards defined above.

The college may immediately suspend a student in the event of extraordinary circumstances.

Part 3. Appeals

A student who fails to make satisfactory academic progress and is suspended from enrollment and/or financial aid has the right to appeal based on unusual or extenuating circumstances.

1. Appeals must be submitted in writing on a "Suspension Appeal" form.
2. The appeal must include an explanation of the circumstances that affected academic progress and a detailed plan for success.

3. The appeal must include supporting documentation beyond the written explanation.
4. The appeal will be considered by the Suspension Appeals Board, which consists of: an Academic Dean, a Counselor, the Registrar, and a representative from Financial Aid.
5. A written decision on the appeal will be provided to the student. Suspended students not currently enrolled, including transfer students, must appeal at least 10 working days prior to the semester they wish to attend.
6. Students who wish to appeal the decision of the Suspension Appeals Board may re-submit their request to the Vice President of Academic Affairs. The decision of the Vice President of Academic Affairs is final and binding.
7. Students whose appeals are approved must contact the Registrar to register for classes.

Part 4. Reinstatement

A student who has been suspended from enrollment may return to the college after an appeal has been approved or the period of suspension has passed. The student remains on probation. A suspended student who has not successfully appealed, but has returned to the college following the period of suspension, may receive financial aid if the student is otherwise qualified.

Confidentiality of Student Records Policy III.1.1

General Information/Policy

Lake Superior College is in full compliance with the provisions of the Minnesota Data Practices Act and Federal Educational Rights and Privacy Act of 1974. Students have access to any and all educational information kept on them in the files of the Enrollment Services Center at Lake Superior College. This also applies to other schools where the student is enrolled, as well as the parents of students who are less than 18 years of age.

Classification of Data on Students (Educational Data)

The term "student" includes a person currently or formerly enrolled and applicants for admission.

Data on students means, in general, all data in which any individual is or can be identified. By statute, data on students is termed "educational data."

Records of instructional personnel which are in the sole possession of the maker and are not accessible or revealed to any other individual except a substitute teacher and are destroyed at the end of the school year shall not be subject to the restrictions of this policy.

Records made or maintained by a physician, psychiatrist, psychologist, or other recognized professional, and if the records are used only for treatment of a student and made available only to those persons providing treatment, shall not be subject to the restrictions of this policy.

Records relating to a student as an employee shall be subject to personnel policies rather than student data privacy policies, unless this employment is contingent upon attendance.

Public Student Data

This data is accessible to any member of the public for any reason. It includes the following items:

1. Statistical studies on students where individuals cannot be identified, including follow-up, profiles, enrollments, and financial aid.
2. Student performance records for which the performance is public.
3. Directory information.

The following information has been designated as "directory information." It is considered public data unless requested in writing that this data be treated as private.

1. Name
2. Graduation date
3. Major
4. Status - full time/part time
5. Degrees, honors, and awards
6. Dates of attendance
7. Activity participation
8. Most recent previous school attended
9. Address
10. Telephone number

Private Student Data

This data is not accessible to the public. It is accessible to the subject of the data, to individuals or agencies authorized by law to gain access, and to any person or agency having the approval of the subject. For students under the age of 18, however, private data may be released to parents and/or other schools where the student is enrolled. Unless there is a specific law stating otherwise, or as stated elsewhere in this rule, educational data is presumed to be private. Private data includes:

1. Academic information, including transcripts, grades, and test results.
2. Recommendation information. (It is not required that recommendations placed in the record prior to January 1, 1975, be shown to a student.)
3. Evaluations.
4. Profile information which identifies individuals.
5. Student financial aid records and other financial information.
6. Background information, including behavior, performance, and traits.
7. Counselor records, except if they contain information otherwise classified as confidential or as public.

Confidential Data

This data is not accessible to the public or to the subject of the data. It is accessible only to individuals or agencies authorized by law to gain access. Confidential data includes:

1. Investigation information collected for purposes of active or pending legal action, prior to such action.
2. Investigation information collected for purposes of anticipated suspension or expulsion of students for disciplinary reasons, prior to the formal action.
3. Legal counsel.
4. Financial records and statements of a student's parents.

Access to Private Data on Students

Private student data shall be disclosed only:

1. To the student who is the subject of the data.

2. To officials or to other schools, upon written request of the student.
3. To any person or agency if the student has given informed consent. Informed consent requires the signing of a statement that:
 - a. Is in plain language.
 - b. Is dated.
 - c. Indicates who shall release and who shall receive the information.
 - d. Specifies the nature of the data.
 - e. Specifies the purposes of which information may be used.
 - f. Indicates the expiration date, usually not to exceed one year.
4. To other college personnel and system office personnel who have legitimate educational interests. Authorized personnel include:
 - a. Persons employed by the College in an administrative, supervisory, advisory, research, or support staff position.
 - b. Persons employed by or under contract to the College to perform a special task, such as the attorney or auditor.
 - c. Students serving on an official committee, such as a disciplinary or grievance committee, or who are assisting another school official in performing his/her tasks.
5. In connection with a student's application form, or receipt of, financial aid.
6. To parents of an eligible student under age 18 who is claimed as a dependent for tax purposes.
7. To other schools that a student under the age of 18 is attending.
8. To federal or state authorities in connection with the audit and evaluation of federally-supported educational programs.
9. To state and local officials, as may be required by state statute existing prior to November 19, 1974.
10. To accrediting organizations in order to carry out their accrediting functions.
11. To the alleged victim of a crime of violence when the College has the results of any disciplinary proceedings conducted by the College against an alleged perpetrator of that crime.
12. To organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of:
 - a. Developing, validating, or administering predictive tests.
 - b. Administering student aid programs.
 - c. Improving instruction.
 (These studies are conducted in such a manner as will not permit the personal identification of students by persons other than representatives of such organizations, with the information to be destroyed when no longer needed for its purpose.)
13. To appropriate persons, if the knowledge of such information is necessary to protect the health or safety of the student or other persons.
14. On the basis of a valid court order, or a lawfully issued subpoena - but only after calling the court's attention, through proper channels, to the statutory provisions, rules, or regulations which restrict the disclosure of such information. The College may disclose records to a court without a court order or subpoena when the institution initiates legal action against a student and gives the student prior notice of the intended disclosure.
15. To appropriate health authorities, but only to the extent necessary to administer immunization programs.
16. For other purposes stated to the student at the time of collection.

Student Rights Regarding Personal Information

Students asked to supply private or confidential data concerning themselves shall be informed of:

1. The purpose and intended use of the data.
2. Whether one may refuse or is legally required to supply the requested data.
3. Any known consequences arising from supplying or refusing to supply private or confidential data.
4. The identity of other persons or entities authorized by state or federal law to receive the data.
5. Whether the college maintains any data on him or her and what the classification of that data is. This includes confidential data.
6. The right to review all private or public data (on self) without any charge.
7. The right to receive copies of private or public data (on self). The agency may charge a fee, which covers the actual costs involved, for providing copies.
8. The right to be informed as to what is classified as directory information, and on request have any or all of it treated as private data.
9. The right to contest, in writing, the accuracy or completeness of public or private data. The college shall within 30 days either correct the data found to be in error, or notify the student that the college believes the data to be correct. If data is found to be incorrect, the college shall attempt to notify past recipients. The student may appeal an adverse determination of the college through the provisions of the administrative procedures act relating to contested cases.
10. The right to file a complaint with the College or the U.S. Department of Education for any alleged noncompliance with this policy.

Records of Requests and Disclosures

The college shall list with the educational records of each student the parties who have requested or obtained access to a student's educational records, and the legitimate interest these parties had in obtaining this information.

Assessment/Placement Tests Policy III.3

Part 1. General Information/Policy

Assessment/placement tests are given in mathematics, reading, and writing to help students identify their current skills in these areas.

The test scores will enable the students to be properly placed in the courses that are appropriate to their skills. Students who score below the minimum standards are required to successfully complete appropriate developmental education courses with a grade of 'C' or better.

Assessment/placement tests are required before registering for classes. Other academic areas may require additional tests.

Students transferring credits in college composition (equivalent to ENGL1106, with a grade of C or better) do not need to take the English or reading component of the test.

Students transferring credits in college algebra (equivalent to MATH1100 or MATH1105) do not need to take the math component of the test.

Students who need only individual test components should contact the LSC Enrollment Services Center.

New students will be mailed a list of testing times after applying to the college.

High School Honors Program (HSHP): High school students participating in Lake Superior College HSHP may be exempt from testing if they meet the following criteria: a) they have a high school cumulative GPA of 3.0 or higher, and b) they are recommended for the program by their high school counselor. Students who do not meet the above criteria must take the LSC assessment test and score at the required level before registering for courses that have a prerequisite of college-level reading, writing, or mathematics.

Admissions Policy III.4

Part 1. Admissions Policy

Lake Superior College is an equal opportunity educator. All persons are eligible for enrollment regardless 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. Lake Superior College will admit:

1. Graduates of a high school or the equivalent, GED (General Equivalency Diploma).
2. Current high school students who meet Postsecondary Enrollment Options program or concurrent enrollment criteria, or
3. Individuals without a high school diploma who take the assessment test and meet ability to benefit standards.

All applicants must submit:

1. The Lake Superior College application form (including nonrefundable fee), available from the Admissions office.
2. The immunization form (if born after 1956), available from the Admissions office. Minnesota law (M.S.135A.14) requires that all students born after 1956 and enrolled in more than one class in a public or private postsecondary school in Minnesota be immunized against diphtheria, tetanus, measles, mumps, and rubella. The student must have had a tetanus shot within the past ten years. No proof of immunization is needed from students who are assumed up-to-date with the immunizations due to requirements imposed by their previous school enrollment. These include:
 - a. Students who graduate from a Minnesota high school in 1997 or later, and
 - b. Transfer students from a different postsecondary school in Minnesota, if transcripts or other information from the previous school indicate that the student has met immunization requirements. All enrolled students must submit the required documentation within 45 days of the beginning of their first semester. Certain exemptions are allowed. Contact the Admissions office for more information.

3. Students are required to complete the appropriate assessment/placement tests, unless they have successfully completed 36 college credits which include college-level English and math, or are taking courses which do not require college-level reading, writing, or math or have scored 24 on the ACT portions of mathematics, English, and reading.
4. If less than five years have passed since graduating from high school, the following must be provided:
 - a. high school transcript mailed directly from the high school, or
 - b. GED Completion Certificate.
5. Allied Health Careers have additional admission standards which are listed in the departmental publications.
6. International and non-native English speaking students must satisfy additional requirements for admission. (Contact the Admissions office for specific requirements and/or see section on Applicants Whose Native Language is Not English.)
7. It is the policy of the Lake Superior College Over-the-Road Truck Driving program to participate in a drug/alcohol testing program in accordance with state and federal regulations. See departmental publications for specific procedures.
8. Students who have been suspended or expelled for disciplinary reasons from any postsecondary institution may be denied admission to Lake Superior College.
9. Students who have been suspended or expelled for academic reasons from any postsecondary institution may be denied admission to Lake Superior College.

Admission to Lake Superior College does not automatically qualify a student for all courses and curricula of the college; some programs and/or course offerings have special prerequisites. Academic, fiscal, and facilities considerations may also limit admission to particular programs.

International Student Admissions Policy III.4.1

International Students

International applicants (new or transfer) who are not permanent residents or citizens of the United States may be considered for admission after submitting the following:

1. Completed Lake Superior College application
2. Non-refundable \$20 application fee
3. High school transcript (must be equivalent to a United States high school transcript)
4. Proof of high school graduation must be provided
5. Proof of English proficiency (testing is required for all applicants whose native language is not English). Acceptable documentation of English proficiency includes:
 - a. TOEFL (Test of English as a Foreign Language) score of 500 or more
 - b. Michigan Test score of 75 or more
 - c. English Language Services (ELS) Language Center (such as Hamline University) recommendation range of 17-20
 - d. English Program for International Students at the University of Minnesota recommendation: "exempt from further ESL — ready for full-time academic load"
6. Affidavit of Financial Support Form
7. F-1 visa issued by the U.S. Consulate or Immigration and Naturalization Service

8. All international students and visiting scholars engaged in educational activities are required to purchase the Minnesota State Colleges and Universities international student accident and illness insurance plan, unless they can provide written verification that their government or sponsoring agency accepts full responsibility for any medical claims that may occur.

Note: Health insurance must be maintained while attending Lake Superior College. International students must maintain a 12-credit load each semester.

Add/Drop/Withdrawal Policy III.4.7

Part 1. Add/Drop/Withdrawal-Fall and Spring Term

Students may make changes in their course schedules (drops and adds) through the fifth (5th) academic calendar day of the term. Students will not be obligated for tuition and certain fees for courses dropped within the above-specified time frame. (See Part 3 for classes starting on dates other than the standard semester start.) Students who drop within the above guidelines shall not have such courses appear on their transcripts.

Students have fifty-five (55) academic calendar days, beginning on the sixth (6th) academic calendar day of the semester, to withdraw from courses. A grade of “W” will appear on the transcript. Students who withdraw from all registered courses will receive a refund based on the LSC Refund Policy. Financial aid awards are calculated based on the number of credits a student is registered for at the end of the standard add/drop period.

Part 2. Add/Drop/Withdrawal-Summer Term

Students may add/drop a course through the fifth (5th) academic calendar day, beginning on the first day of the term.

Students have thirty (30) class days from the date the term begins to withdraw from courses. A grade of “W” will appear on the transcript. Students who withdraw from all registered Summer courses will receive refunds based on the LSC Refund Policy. Financial aid awards are calculated based on the number of credits a student is registered for at the end of the standard add/drop period.

Part 3. Add/Drop/Withdrawal-Courses with Irregular Term Dates

For courses with different term dates than the standard Fall, Spring, or Summer terms, students may drop a course without financial penalties after the course has met once, but prior to the second meeting; students may withdraw until the end of the third (3rd) class session. Refunds will be granted based on the LSC Refund policy.

Students may add classes prior to the second (2nd) class session. Financial aid awards are calculated based on the number of credits a student is registered for on the day of the financial aid disbursement.

Note: If a class is dropped that begins later in the term and a student received financial aid funding for that class, the student will owe a refund to the financial aid program(s).

Postsecondary Enrollment Options (PSEO) Policy III.5

Part 1. General Information/Policy

PSEO enables 11th and 12th grade students to enroll in courses of programs in an eligible postsecondary institution for secondary and postsecondary credit, at no cost to the student. The specific purposes of these programs are to promote rigorous educational pursuits and provide a wider variety of options for students. In order to enroll at Lake Superior College, the student must discuss the program with the high school counselor and then contact the LSC Enrollment Services Center. These programs are not available during the summer term.

Part 2. Procedure for Implementation

Deadlines for application:

Fall term – June 10

Spring term – December 10

High school students must meet the following requirements prior to the published deadlines in order to enroll in courses at LSC:

1. A signed PSEO form from the high school counselor or principal verifying eligibility for enrollment. A 12th grade student is eligible and may be considered for enrollment if the high school certifies the student as being at or above the 50th percentile in class rank. An 11th grade student is eligible and may be considered for enrollment if the high school certifies the student as being at or above the 66th percentile in class rank. If the high school does not compute rank, a student may be admitted on the basis of an overall GPA of 2.5 or greater if in the 12th grade, and of 3.0 or greater if in the 11th grade.

The high school principal, or other authorized official, may petition for an exception to the above standards through a signed statement submitted to the Vice President of Student Services indicating that the student could benefit from college courses, and is recommended for admission.

2. Completion of Assessment/Placement test
3. PSEO student shall not enroll in developmental courses (courses numbered below 1000).
4. PSEO students who wish to continue at LSC after their high school graduation must contact the Enrollment Services Center and pay the \$20 application fee.

Student Code of Conduct Policy III.6

Part 1. Purpose and Basis for Authority

The Lake Superior College 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 violations of the Code occur. It is expected that all students will read this code and will be responsible for knowing and abiding by its content.

In the eyes of the College, two authorities guide a student's conduct while on campus or while participating in off-campus, college-sponsored activities. First, as a citizen of the larger community, each student is expected to abide by the rules, regulations, and policies of the College as well as local, state, and federal laws.

Part 2. Philosophy

As an institution dedicated to teaching and learning, Lake Superior 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 freedom and interferes with the College mission of promoting student learning is subject to regulation and/or sanction by the College. The creation of such an environment is premised on the assumption that students have both rights and responsibilities. Therefore, a major function of the College is to guarantee student rights, yet to demand student responsibility.

Part 3. Student Rights

The rights of students of Lake Superior College derive both from their status as students and from their status as citizens of the state and nation. These rights include, but are not limited to, the following:

1. Students have the right to freedom from discrimination or harassment on the basis of race, ethnicity, gender, sexual orientation, religion, creed, political beliefs, national origin, or disability.
2. Students have the right to be safe and free from all physical violence.
3. Students have the right to expect that their personal property will be safe from theft, damage, and destruction.
4. Students have the right to accurate and timely information regarding academic issues, such as course requirements and expectations, and graduation requirements.
5. Students have the right to expect that all of their records will be maintained in accordance with the Family Educational Rights and Privacy Act of 1974.
6. Students have the right to fair and impartial treatment and due process in the investigation of any alleged violation.
7. Students have the right to expect fair, consistent, and appropriate discipline, in line with the disciplinary policies authorized by the MnSCU Board, if they are found guilty of violating a rule or regulation.
8. Students have the right to grieve actions and policies which they consider unfair and inconsistent.
9. Students have the right to freely engage in inquiry and discussion – the cornerstone of education at Lake Superior College. Therefore, in accordance with the guarantees of federal and state constitutions, students have the right to speak, write, and discuss freely all ideas relevant to their educational development.

Part 4. Conduct Violations

Students are responsible for knowing of and abiding by all the rules and regulations of Lake Superior College. Many of these rules and regulations are simply extensions of those existing in the larger community, and some are unique to the college setting. These rules and regulations apply to both campus and off-campus college-sponsored activities. Violations of these rules and regulations will result in disciplinary action. Penalty procedures

for academic misconduct are addressed in Part 7 of this policy. Violations will include, but not be limited to, the following:

1. Intentionally or recklessly interfering with college or college-sponsored activities including, but not limited to, teaching, research, college administration, fire, police or other emergency services, ceremonial events, scheduled interviews, extracurricular activities or other functions on college premises or officially-arranged college activities off campus.
2. Intentionally, recklessly or negligently causing physical harm to any person. This includes engaging in any form of fighting.
3. Physically detaining or restraining any other persons or removing such persons from any place where they are authorized to remain.
4. 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.
5. 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.
6. 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.
7. Intentionally or recklessly activating a fire alarm without cause; damaging fire safety equipment or initiating a false report; warning or threat of fire, explosion or other emergency.
8. The use, possession or distribution of any controlled substance or drugs and/or drug paraphernalia.
9. Use, possession or distribution of alcohol except as expressly permitted by college policy.
10. Reporting to campus or to a campus-sponsored activity while under the influence of a controlled substance, except as prescribed by a physician, which affects alertness, coordination, reaction, response, judgment, decision making, or safety.
11. Use of any tobacco product in campus buildings or classrooms including a lighted cigarette, cigar, or pipe; the use of any smoking material; or use of smokeless tobacco.
12. Knowingly furnishing false information to college personnel; or the knowledgeable passing of an insufficient funds check or fraudulent money order in payment of any financial obligation to the college.
13. Forgery, unauthorized alteration or unauthorized use of any college document or instrument of identification.
14. Theft, attempted theft, unauthorized borrowing or use of any college property or service wherever located, or the theft, attempted theft, or unauthorized borrowing or use of public or private property.
15. Possessing, making, or causing to be made any key to operate locks or locking mechanisms without proper authorization, including using or giving to another a key for which there has been no proper authorization.

16. Unauthorized presence in, or use of college premises, facilities or property.
17. Refusing to depart from any property or facilities of the college upon direction by college officials or other persons authorized within the regulation of the college.
18. In-line skating, roller skating, or skateboarding in all college buildings.
19. Unauthorized or fraudulent use of college facilities, telephone system, mail system, computer system, or use of any of the above for any illegal act or any act prohibited by the Code of Conduct.
20. Deliberate destruction of, damage to, malicious use of, or abuse of property, wherever located, or the deliberate destruction, damage to or malicious use of public or private property.
21. Failure to comply with the directions of college officials including, but not limited to, faculty or administrators acting in the performance of their duties; failure to present identification upon request of college personnel in the performance of their duties.
22. Gambling for money or other things of value on campus or at college-sponsored activities except as permitted by law.
23. Falsely claiming to represent the college or a student organization of the college.
24. Actions which unreasonably interfere, obstruct or prevent the regular and essential operations of the college or infringe upon the rights of others to freely participate in its programs and services. This may include, but is not limited to, intentionally and substantially interfering with the freedom of expression of others; participating in a campus demonstration which disrupts the normal operations of the college, intentionally obstructing or interfering with the freedom of pedestrian or vehicular movements on campus.
25. Violation of published college policies, rules or regulations including, but not limited to, smoking, solicitation, distribution of literature, sexual harassment, and amplification and loudspeaker use.
26. Parties and/or large gatherings which disturb the peace of the campus community or off-campus neighborhoods.
27. Apparent or alleged violation of local ordinances, federal or state laws where said violation poses a substantial threat to the safety and/or welfare of campus community members.
28. Attempts and complicity: attempts to commit acts prohibited by this code, or encouraging others to commit acts prohibited by this code will be punished to the same extent as if one had committed the prohibited act.
29. Interfering with the judicial procedures or outcomes including, but not limited to, falsification, distortion or misrepresentation of information before a hearing officer or judicial panel; knowingly initiating a complaint without cause; or failure to comply with the sanction(s) imposed by either a hearing officer or administration.
30. Hazing, "an act which endangers the mental or physical health or safety of a person, subjects a person to public humiliation or ridicule, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group, organization, or athletic team." Disciplinary action can be taken against both individuals and organizations for hazing violations, whether occurring on or off campus. Officers will serve as the representatives of the organization during any hearing.

Part 5. College Sanctions for Conduct Violations

The following sanctions may be imposed for misconduct:

1. Warning. Issuance of a written warning, admonition, or reprimand, and may include a referral for counseling.
2. Probation. Continuance at the college but only under special conditions for a specified period of time.
3. Loss of Privileges. Denial of specified privileges for a designated period of time or exclusion from participation in the extracurricular activities of the college, including the holding of any student office, for a period of time not to exceed one academic year.
4. Restitution. Required reimbursement for damage to or misappropriation of property. This may take the form of appropriate services or other compensation.
5. Community Service. Set number of hours of uncompensated service to the college or a community agency.
6. Discretionary sanctions. Work assignments, service to the college, counseling or referral to community agencies, rehabilitative programs, or other related discretionary assignments. Failure to participate as directed may result in the imposition of additional sanctions.
7. Confiscation. Confiscation of property or goods used or possessed in violation of college rules and may not be subject to return to the student.
8. Trespass. Denial of rights to access the college premises or specified areas within the college, either permanently or within a specified period of time.
9. Administrative and legal sanctions up to and including expulsion and referral for prosecution may be imposed on students who violate local, state or federal law.
10. Suspension. Denial of the privilege of enrollment for a specified period of time after which the student is eligible to return. During this time the student cannot qualify for graduation, register for or attend classes or other college functions.
11. Summary Suspension. A suspension imposed without an informal or formal hearing to ensure the safety and well being of members of the college. This shall include an oral or written statement from the Vice President of Student Services that the student is violating or has violated college rules and may be subject to more severe sanctions.
12. Expulsion. Permanent denial of the privilege of enrollment at the college.

More than one of the sanctions listed above may be imposed for any single violation.

Other than college suspension or expulsion, disciplinary sanctions shall not be made part of the student's permanent academic record but shall become part of the student's confidential record.

Part 6. Judicial Process and Procedures

Allegations of discrimination, protected class harassment (including sexual harassment), or sexual violence, as well as academic dishonesty, shall be adjudicated under separate procedures in accordance with the college policies on these issues, but violators may be subject to the sanctions described in the Student Code of Conduct.

Student Rights and Due Process

Disciplinary action against individual students or groups of students must be administered in the context of a unified and coordinated set of campus regulations and processes to ensure fair, equitable and legal outcomes. Each person involved in the administration of the Student Code of Conduct of Lake Superior College will set as a goal the fair, objective and humane approach in all conduct cases. Consistent treatment in disciplinary action is another goal. Each case, however, must be recognized as a highly individual matter, and consistency for the sake of consistency should not be the dominant concern. Those involved in administering the Student Code of Conduct should be aware that their efforts are primarily directed toward:

1. Protecting the integrity and order of the institution, and the morale and reputation of faculty, students and staff.
2. Educating the student involved with the conduct process so that he/she may learn to discipline himself/herself and accept responsibilities of membership in the college community.
3. Helping the student gain insight into the reasons and consequences of his/her behavior so that he/she may cope with future difficult situations more successfully.

The administration of the Student Code of Conduct should also guarantee procedural fairness to an accused student. Practices in disciplinary cases may vary in formality with the gravity of the alleged offense and the potential sanctions which may be applied. Sanctions shall be commensurate with the seriousness of the offense and may include suspension/expulsion from the college community. Repeated violations justify increasingly severe sanctions. In all cases, procedural fair play requires that a student charged with misconduct be informed of the nature of the charges, given a fair opportunity to refute them, that the institution not be arbitrary in its actions, and that there be provision for appeal of a decision. Therefore, persons making charges are required to provide pertinent information in writing and, if necessary, appear at a hearing.

Procedures

1. Informal Adjudication Process

The college, through its Student Conduct Officer (Vice President of Students Services or designee) shall receive complaints against students from members of the college community, local and state agencies, and from the public. All complaints must be provided in writing to the Student Conduct Officer within ten days after becoming aware of the alleged violation. Following the filing of an accusation against a student, the conduct officer involved shall conduct an investigation of the charges. If the accusation seems unwarranted, the conduct officer shall discontinue proceedings. If there is sufficient evidence to support the accusation, the conduct officer shall offer the accused student an opportunity to resolve the violation at an informal meeting. Prior to this meeting the student shall be given oral or written notice of the specific charges against him/her and of the evidence available to support the charge. If a mutually acceptable resolution cannot be reached during the informal meeting, including any applicable sanctions, the case shall be referred for the formal adjudication process. In all cases, the college is the formal complainant. In all cases, the accused has the right to appeal the decision of the conduct officer and may do so according to the appeal process described in the Code of Conduct.

2. Formal Adjudication Process

- a. Students referred for the formal adjudication process shall be given adequate advance notice in writing of the time, place, and date of the meeting. A student's failure to appear at the meeting shall not prevent the meeting from proceeding as scheduled. In all cases, the evidence in support of the charges shall be presented and considered.
- b. Within a reasonable time prior to the meeting, the student must be informed in writing of:
 1. the charges,
 2. the evidence to be presented against him/her, and
 3. a list of witnesses and the nature of their testimony.
- c. Proceedings shall be conducted by the Judicial Panel according to the following guidelines:
 1. Proceedings normally will be conducted in private.
 2. Admission of any person to the proceeding shall be at the discretion of the Judicial Panel.
 3. In proceedings involving more than one accused student, the Judicial Panel may at its discretion permit the proceedings concerning each student to be conducted separately.
 4. The person filing a complaint and the accused have the right to have an advocate present at the time of the hearing. The advocate may be an attorney. A person filing a complaint and the accused are responsible for presenting their own cases; therefore, advocates are not permitted to speak or participate directly in any proceeding before the Judicial Panel. When there is a likelihood that a student involved in conduct proceedings will face criminal prosecution for a serious offense, it may be advisable that the student have an attorney as the advisor.
 5. The accused and the conduct officer shall have the privilege of presenting witnesses, subject to the right to cross-examination by the Judicial Panel.
 6. Pertinent records, exhibits and written statements may be accepted as evidence for consideration by the Judicial Panel at the discretion of the panel.
 7. All procedural questions are subject to the final decision of the Judicial Panel.
 8. After the meeting, the Judicial Panel shall determine whether the student violated each section of the Code which the student is charged with violating.
 9. The determination shall be made on the basis of whether it is more likely than not that the accused student violated the Code.
- d. The standing Judicial Panel shall consist of an academic dean, two faculty members, one staff member, a counselor, and two student representatives nominated by the Student Senate. The Judicial Panel is chaired by a dean.
- e. There shall be a single record of the meeting before the Judicial Panel. The record shall be the property of the college.
- f. A written notice of findings and conclusion shall be provided to the student within five working days after the hearing. The notice shall inform the student of any sanctions to be imposed and of the right to an appeal. Where sanctions involve a suspension of ten days or longer, the college shall inform the student that he/she has the right to a contested case hearing under Minnesota Law (Chapter 13, MSA).

3. Appeals

a. Following the panel's decision, a student may request an appeal hearing before the President. The request for an appeal to be heard must be submitted in writing to the Vice President of Student Services within five days of the date of the notification of the decision. The Vice President of Students Services will forward the information to the President. Failure to file an appeal or request an extension in a timely manner constitutes a waiver of any right to an appeal. The basis for an appeal will be limited to the following grounds:

- 1) The sanction is excessively severe.
- 2) New or newly discovered evidence of a nature which may substantially affect the outcome of the hearing.
- 3) There was a procedural error which substantially affected the outcome of the hearing.

The appeal letter will be reviewed and, if there is adequate reason to believe that one or more of the grounds for appeal has merit, an appeal hearing will be scheduled between the accused student and the President. A student's attorney or advocate may attend this meeting if criminal charges are pending against the student. In the event that new evidence is relevant to the outcome of the decision, the President may request a re-hearing by the original panel. The President will render a decision and notify the student in writing within five days of the appeal hearing.

b. Chapter 14-Contested Case Hearing: Students who are suspended for more than ten days or are expelled may request a contested case hearing before an administrative law judge supplied by the Minnesota State Hearing Examiner's Office in Saint Paul, Minnesota. The hearing officer will issue a recommendation to the President of the college who will make the final decision.

Part 7. Summary Suspensions

In certain circumstances, the Vice President of Student Services may impose a summary suspension prior to the informal or formal proceedings described in previous articles. A summary suspension may be imposed only when, in the judgment of the Vice President of Student Services, the accused student's presence on the college campus would constitute a threat to the safety and well-being of members of the campus community or college property. Before implementing the summary suspension, the accused student shall be given oral or written notice of the intention to impose the summary suspension and shall be given an opportunity to present oral or written arguments against the imposition of the suspension. However, the refusal of a student to accept or acknowledge this notice shall not prevent the implementation of a summary suspension. Notice of the summary suspension shall be provided in writing to the student. After the student has been summarily suspended, the student shall be provided an opportunity for a formal or informal hearing within the shortest reasonable time period, not to exceed nine days. During the summary suspension, the student may not enter the campus without obtaining prior permission from the Vice President of Student Services. If the student is unavailable or incarcerated, it may not be possible to provide due process.

Part 8. Academic Misconduct

All students have the right to pursue their academic careers in an atmosphere based on honesty and trust. Acts of academic

misconduct destroy that atmosphere, violate that trust, and are therefore subject to penalty. This section of the Lake Superior College Student Code of Conduct defines what acts of academic misconduct are and presents the procedure for imposing penalties for such acts. Acts of academic misconduct necessarily involve the Vice President of Academic Affairs, academic deans, department heads, and faculty. Therefore, the procedures for investigating complaints and imposing penalties for academic misconduct differ somewhat from those applied to social misconduct.

A fundamental concept of all educational institutions is academic honesty. All academic work depends upon respect for and acknowledgment of the research and ideas of others.

Misrepresentation of someone else's work as one's own is a most serious offense in any academic setting. Therefore, academic misconduct in relationship to academic dishonesty, including any form of cheating and plagiarism, cannot be condoned. Academic misconduct, as referenced, includes, but is not limited to, the following:

1. Cheating: the use of unauthorized materials, methods, or information in any academic exercise, including improper collaboration (electronic or otherwise).
2. Plagiarism: the representation of the words or ideas of another as one's own, including:
 - 2.1 Direct quotation without both attribution and indication that the material is being directly quoted, e.g., quotation marks; paraphrase without attribution.
 - 2.2 Paraphrase with or without attribution where the wording of the original remains substantially intact and is represented as the author's own.
 - 2.3 Expression in one's own words, but without attribution, of ideas, arguments, lines of reasoning, facts, processes, or other products of the intellect where such material is learned from the work of another and is not part of the general fund of common academic knowledge.
 - 2.4 Fabrication: the falsification or invention of any information or citation in an academic exercise.
 - 2.5 Fraud: the falsification, forgery, or misrepresentation of academic work, including the re-submission of work performed for one class for credit in another class without the informed permission of the second instructor; or the falsification, forgery or misrepresentation of other academic records or documents, including admission materials and transcripts; or the communication of false or misleading statements to obtain academic advantage or to avoid academic penalty.
3. Bribery or intimidation in relationship to the grading process.
4. Engaging or assisting others in any portion of the aforementioned acts.

Procedures

Informal Judicial Process

If a faculty member believes that misconduct warranting discipline has occurred, he/she shall inform the student concerned, both in writing and orally, and offer to confer. If the student foregoes such a conference, or if after the conference the faculty member remains convinced that misconduct warranting discipline has occurred, he/she may, among other options, treat any work in question or an entire course as unsatisfactory, informing the student thereof. Additionally or alternatively, the

faculty member may refer the matter to his or her academic dean. If the dean determines that sufficient cause exists to warrant consideration of additional discipline, the dean may initiate formal hearing proceedings. The student may initiate formal hearing proceedings at any time.

Formal Judicial Process

Students have the right to appeal decisions resulting from this policy. A written appeal must be made to the Vice President of Academic Affairs within five (5) working days after written notification of the decision which is being appealed. The Vice President of Academic Affairs will make a decision and then notify the appellant.

Classroom Misconduct

Beyond the act of academic dishonesty, there are other modes of conduct that serve to undermine the academic success of students during classroom instruction. Therefore, students are prohibited from impeding an environment conducive to learning, whether it be during traditional instruction, instruction through technological means, instruction within a learning center, instruction by way of tutoring, or instruction by way of individual study on the campus of Lake Superior College. Hence, any student who is found to disrupt the educative process of another student, or other students, is subject to sanctions as described in the informal judicial process for academic misconduct. Academic misconduct, as so referenced, includes, but is not limited to, the following:

1. Being openly disruptive.
2. Engaging in verbal outburst, talking loudly to classmates independent of class discussion.
3. Talking in an openly abusive manner or disrespectful manner to the instructor and/or to classmates.
4. Disregarding verbal and/or written instruction in relationship to expected codes of conduct during classroom instruction.
5. Initiating or participating in inappropriate conduct (e.g., horseplay) that disrupts classroom activities.
6. Using any device to cause disturbance inside or outside the classroom during instruction.
7. Continuing to engage in inappropriate interaction with the instructor, after one has been counseled not to continue adverse behavior.

Part 9. Release of Information

Lake Superior College will not release to the media the results of the outcomes of disciplinary procedures resulting from its student investigations, including those which involve criminal offenses. Such records may be released to government agencies exercising jurisdiction.

Complaint/Grievance Policy III.8.1

Part 1. General Information

A student has the right to seek a remedy for a dispute or disagreement through a designated complaint procedure.

A complaint should be filed in the semester of occurrence, but no later than one year following.

Part 2. Complaint Procedure – Informal

This procedure is to be used when a student has a concern about his/her education at the college. The objective of the procedure is to resolve problems as quickly and efficiently as possible at the level closest to the student so the student's educational progress can continue. Nothing within this process precludes a student from seeking legal counsel at any step.

The student brings the concern to an appropriate staff or faculty member. If the student is uncomfortable with approaching the college employee directly, he/she may select an advocate (a counselor, advisor, or other staff member). The staff member or members attempt to work with the student and any other persons who are involved to resolve the problem within ten (10) working days. If the concern is not resolved satisfactorily, the student may file a formal complaint.

Part 3. Complaint Procedure – Formal

If a student is dissatisfied with the results of the informal process, a formal complaint can be filed. All formal complaints must be submitted in writing. Forms are available in the Student Services and Administrative offices and should be returned to the appropriate administrator for response. The appropriate administrator shall respond to the complaint within ten (10) working days of its receipt.

Part 4. Appeals

The student has a right to appeal the complaint decision by filing a written appeal to the college president. Appeals must be filed within ten (10) working days of receipt of the complaint decision. The president shall respond within ten (10) working days from receipt of the appeal. The decision of the president is final and binding.

If the complaint involves a MnSCU policy or actions of the college president, a student may further appeal the college decision through the Chancellor to the Board of Trustees. The decision of the Board of Trustees is final and binding.

General Petition Policy III.8.2

Students seeking an exception to any academic rule, regulation, or procedure may submit a completed Petition form to the Petition Committee for consideration. Any such petition should be filed in the semester of occurrence, but no later than one year following. Appeals of the Petition Committee decision will be heard by the Vice President of Academic Affairs, whose decision shall be final and binding.

Procedure:

1. Complete and sign the form.
2. Attach appropriate documentation.
3. Return the completed form to the Enrollment Services Center.
4. The Petition Committee meets weekly.
5. You will be notified by mail of the committee's decision.
6. If you have not received notification within ten working days, contact the Enrollment Services Center at 218-733-7612.

Credits for Work Completed in High School Policy III.15

A. Advanced Placement

The Advanced Placement (AP) Program is a program of college-level courses and examinations developed for secondary students to cover the material normally taught in introductory-level college courses. The AP examinations are given to students who complete AP courses (or to any student who feels prepared by independent study or other preparation to take the test). AP tests are scored on a 5-point scale. LSC shall grant credit for AP according to the following:

1. A score of 3 shall be the minimum for credit awards.
2. The same amount of credit shall be granted for scores of 3, 4, and 5 unless the higher score clearly represents more coverage of material rather than a better rate on the material, as in some mathematics sequences.
3. Credit shall be given for a specific college course if a test covers substantially similar material. If the test material does not match an existing course, students shall be given four elective credits. No course exemptions shall be granted.
4. Students shall be allowed to petition for electives to meet certain general education requirements of the A.A., A.S., or A.A.S. degrees.
5. There is no limit to the number of credits a student can earn through AP courses and tests. AP exams are not proctored at Lake Superior College.

B. Tech Prep Courses

Successfully completed Tech Prep course credits will be recorded on an LSC transcript. Students must complete a Lake Superior College Special Registration form.

Advanced Standing Policy III.15.1

Part 1. General Information/Policy

The college may give credit toward program completion for prior work, education, and life experiences that are equivalent to the program requirements. Advanced standing may be achieved through one of the following options: credit by exam, non-collegiate experience credit, or credit transfer.

1. Credits received through advanced standing count toward graduation requirements but are not counted in Grade Point Average or minimum semester credit completion calculations and are not counted for financial aid status.
2. Responsibility for possessing and retaining the content knowledge and skills required by course requirements for which advanced standing is granted rests with the student applicant.
3. Advanced standing procedures do not supersede the time frames for drop/add, withdrawal, or any refund of tuition.

A. Credit by Exam

Students who wish to obtain credit for knowledge and experience that is parallel to the content of a particular course must follow the process outlined on the LSC Credit by Exam form obtained from the Enrollment Services Center. Exams for credit are given at the discretion of the Dean of the Division. This option is limited to currently-enrolled LSC

students pursuing an LSC academic award (certificate, diploma, degree).

Procedure

1. A fee of 40% of tuition cost per credit must be paid prior to the exam and is not refundable even if the student does not pass the exam or is not given credit for the course.
2. Students cannot request credit by exam for a course for which they are registered or in which they were previously enrolled.
3. All credits earned through this procedure will be recorded on an LSC transcript. No grade will be recorded on the transcript for a failed exam for credit.
4. Students are limited to one attempted credit by exam per course.
5. Students may earn up to 30 credits utilizing the credit by exam process.
6. Credit by exam credits are not considered for financial aid purposes.

B. Credit for Non-collegiate Experience

Registered students who are able to demonstrate achievement in the content of college-level courses or who have successfully completed appropriate non-collegiate educational experiences through prior work, education, and life experiences may be eligible to receive credit at Lake Superior College or have certain requirements waived. Students who wish to obtain credit for prior learning and/or experience that are parallel to the content of a particular course must follow the process outlined on the LSC Experience Documentation form obtained from the Enrollment Services Center.

1. The student must be able to document the prior learning or demonstrate achievement.
2. The deans will consult with the appropriate faculty members before approving the acceptance of non-collegiate credits toward the general education requirements in a specific discipline or equating non-collegiate work with a specific course.
3. Non-collegiate experience must be applicable to a program, degree, or curriculum at LSC.
4. Credit may be given for the nontraditional educational experiences listed below with proof of completion.
 - a. CLEP (College Level Examination Program)
 - (1) Up to nine semester hours of credit in each of the five General Examination areas listed below for a score at or above the 50th percentile on a given test. Credit will not be given which repeats completed course work within the discipline.
 - a) English Composition with Essay
 - b) Humanities
 - c) Mathematics
 - d) Natural Science
 - e) Social Science/History
 - (2) No letter grade will be assigned
 - b. Experiential learning is credit achieved through experiential learning processes, and students must initiate a request for experiential credit prior to the official drop/add deadline for that particular course.
5. A petition must be submitted for the following general education experiences:

- a. USAFI (United States Armed Forces Institute) courses: for subject matter tests, appropriate discipline faculty will recommend credits in consultation with the appropriate deans prior to the college accepting credits or authorizing waivers which would affect distribution requirements.
- b. PSI (Professional Secretaries International): Individuals who have successfully completed the PSI examination in the past seven years may be eligible for LSC course work credit.
- c. Other non-collegiate college-level learning experiences.

Procedure

1. A fee of 40% of tuition cost per credit must be paid prior to providing documentation of prior learning and is not refundable even if the student is not granted credit for the documented prior learning.
2. Students cannot request credit from prior learning for a course for which they are registered or in which they were previously enrolled.
3. All credits earned through this procedure will be recorded on an LSC transcript. No grade will be recorded on the transcript for unaccepted credit for prior learning.
4. Students are limited to one attempted credit for prior learning per course.
5. Students may earn up to 30 credits utilizing the credit for prior learning process.
6. Credit for prior learning credits is not considered for financial aid purposes.

Note: Lake Superior College has adopted the National Council for Adult and Experiential Learning (CAEL) standards.

Graduation Requirements Policy III.17.1

Part 1. General Information/Policy

Students may graduate under their catalog of entry or exit; if they have been out of college for more than one year, they must follow the catalog of re-entry or exit. In addition, some programs may have more stringent requirements; any variations from a published catalog, or more recent planner, must be documented by petition.

Degrees, diplomas, and certificates awarded by LSC shall meet the following requirements:

Associate in Arts (A.A.) may be awarded for successful completion of programs primarily intended to provide a broad liberal arts and sciences background, and to constitute the first two years of four-year degree programs. Associate in Arts programs include 60 semester credits of completed course work, which is defined as college level with a grade point average of 2.0 or better. The requirements of the Minnesota Transfer Curriculum must be met. At least 20 of these credits must be earned in courses taught by the LSC Liberal Arts and Sciences faculty. For specific credit requirements within educational categories, please refer to the A.A. Program Planner and/or counselor.

Associate in Science (A.S.) may be awarded for successful completion of programs which have highly structured professional-level technical requirements, and require a college setting. Recipients of the A.S. shall be prepared for transfer to baccalaureate majors in the same field. A.S. programs include

60-72 semester credits with a grade point average of 2.0 or better. At least 20 of these credits must be earned in the LSC program awarding the degree. For specific credit requirements within educational categories, please refer to the A.S. Program Planner and/or counselor.

Associate in Applied Science (A.A.S.) may be awarded for successful completion of programs primarily intended to prepare people for employment. A.A.S. programs include 60-72 semester credits, at least 20 earned in the LSC occupational program awarding the degree and a grade point average of 2.0 or better. Please refer to A.A.S. program planners, counselors, and/or advisors for specific category requirements. Students must meet at least one of the ten Minnesota Transfer Curriculum goals.

Diploma of Occupational Proficiency may be awarded to students who have successfully completed the prescribed curriculum and have met program requirements, including an earned cumulative grade point average of 2.0 or better. Students must earn the lesser of 1/3 of the program requirements or 10 credits in the LSC program awarding the diploma.

A certificate may be awarded for successful completion of programs which are at least one full-time academic semester in length with an earned cumulative grade point average of 2.0 or better. A certificate shall include 9-30 semester credits. Students must earn the lesser of 1/3 of the program requirements or 10 credits in the LSC program awarding the certificate.

Minnesota Transfer Curriculum

The Minnesota Transfer Curriculum is a package of 40 semester credits that will be accepted for transfer by all Minnesota Community Colleges, State Universities, and the University of Minnesota, as well as many private colleges.

Students must earn 13 credits through enrollment in Liberal Arts or Sciences courses at LSC for certification of completion of the Minnesota Transfer Curriculum.

Honors at Graduation

Associate Degrees will be awarded with High Distinction to those students graduating with an LSC cumulative grade point average of 3.75 or greater. Associate Degrees will be awarded with Distinction to those students graduating with an LSC cumulative grade point average of between 3.50 and 3.74.

Dean's List Policy III.17.3

Students who complete 6 or more credits and achieve a semester GPA of at least 3.25 will be recognized as on the Dean's List.

Transfer Students Policy III.21.1

Part 1. Transfer Student Applicants

Students who have attended another college or colleges must have official transcript(s) sent from the college(s) to the Enrollment Services Center. An official transcript must be sent directly from the institution to LSC; or, if hand-carried by a student, it must be

delivered unopened with the official seal intact. Student copies and faxed transcripts are not considered official. Official transcripts received at the college from previously attended postsecondary institutions will automatically be evaluated for the program in which the student is currently enrolled. Credits earned at a college or university which is accredited by a regional accrediting association (Middle State Association of Colleges and Schools-MSA, The Northwest Association of Schools and Colleges-NASC, North Central Association of Colleges and Schools-NCA, New England Association of Schools and Colleges/Commission on Institutions of Higher Education-NEASC-CIHE, New England Association of Schools and Colleges/Commission on Technical and Career Institutions-NEASC-CTCI, Southern Association of Colleges and Schools/Commission on Colleges-SACS-CC, Western Association of Schools and Colleges/Accrediting Commission for Community and Junior Colleges-WASC-Jr., Western Association of Schools and Colleges/Accrediting Commission for Senior Colleges and Universities-WASC-Sr.) will be accepted as equivalent courses in a student's designated program of study. Grades from another institution are not used in computing the student's Grade Point Average. Some programs may have more stringent requirements. Credits from private schools and colleges not accredited by a regional accrediting association may be accepted for transfer in some occupational courses after having been evaluated. Work completed at military schools will be accepted based on the recommendation of the Guide to the Educational Experiences in the Armed Services.

Comparability

Courses approved for transfer must be comparable in nature, content, and level and match at least 75% of the content and goals of the course syllabus for which the student is seeking equivalent credit.

Time Limit

General education and elective credits have no transfer time limit. Occupational course credits earned more than five years prior to the time of request will not be accepted for transfer; certain occupational areas may have more stringent requirements. However, students may demonstrate course content mastery by utilizing the LSC "test-out" process or by petitioning for consideration of work completed beyond the 5-year time limit.

Transfer Maximum

LSC will accept a maximum of 18 semester credits from a regional accredited technical college as electives toward the A.A. degree.

Equivalency

The number of transfer credits granted per course shall not exceed the number granted by the originating institution.

Conversion

The conversion of quarter credits to semester credits shall normally be reduction of quarter credits by 1/3 to semester.

Repeated Courses

When a student successfully repeats a course, only credit for the repeated course will be granted.

Part 2. Procedure

The student must request official school transcripts from previous postsecondary institution(s) to be sent for evaluation to the following address: Enrollment Services Center, Lake Superior College, 2101 Trinity Road, Duluth MN 55811-3399. Transfer credits are processed by the Enrollment Services Center on a Transfer Credit Evaluation sheet with a copy of the transcript attached. The official transcript remains on file in the Enrollment Services Center. If a student changes programs, the student must request a re-evaluation from the Enrollment Services Center. After approval, the courses are posted on the student's academic record. Students may appeal the transfer credit evaluation. Forms are available in the Enrollment Services Center. Students will be sent a copy of the formal transcript evaluation. *Note:* While LSC may accept certain credits, other colleges to which the student may subsequently transfer may not accept them. It is the responsibility of the student to maintain communication with the receiving institution.

Fresh Start Policy III.50

Part 1. General Information/Policy

The Fresh Start policy at Lake Superior College gives a student who has been away from LSC for a period of at least five years a one-time opportunity to establish a new GPA.

Part 2. Procedure for Implementation

Conditions:

Fresh Start cannot be granted if a student has earned a degree, diploma, or certificate from LSC and applied any of those credits towards that award. LSC awards include those earned from Duluth Technical College and/or Duluth Community College.

The student must not have been enrolled in credit-based course work at LSC for a minimum of five consecutive years prior to the point of academic forgiveness.

Upon readmission to LSC, the student must demonstrate ability by completing 15 semester credits at LSC with no grades below a "C".

Students who meet the two conditions cited above should contact an advisor to complete the Fresh Start application. Applications for Fresh Start must be submitted to the Registrar after returning to LSC and earning 15 credits (as stated above) and before earning 30 credits.

Implementation:

Once the application for Fresh Start has been approved, the Registrar will make the following adjustments to the student's transcript:

- The transcript will be separated into two sections indicating the point of Fresh Start. Fresh Start will be indicated on the transcript.
- No credits will be granted for any course completed or applied to any program at LSC (DTC/DCC) prior to the point of academic forgiveness. However, course titles and grades from these courses will remain on the transcript.
- Calculation of the student's GPA will not include grades received prior to the point of Fresh Start approval.
- Courses that are repeated are not eligible for financial aid.

Course Repeat Policy III.50.1

General Information/Policy

Students may repeat courses in which they have received a D, F, or NC grade. Students who wish to repeat courses in which they received a B or C may petition to do so. The more recent grade will be used to calculate cumulative GPA. Repeat credits are not financial aid eligible.

Refunds, Withdrawals and Waivers Policy V.12.0

Part 1. Refunds Policy

Refunds for Dropped Classes

Students may drop classes with no obligation for tuition and certain fees through the fifth day of the term. Students are obligated for payment for any classes dropped after the five-day drop/add period for Fall, Spring, and Summer terms. For courses which begin on an irregular start date, students may drop classes with no obligation for tuition and certain fees prior to the second class session. Students who drop "irregular start date" courses for which they received financial aid will be required to repay in accord 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 the decision of the President.

Tuition and Personal Property Fee

No refund of tuition and personal property fee shall be provided to a student who reduces credit hours, but does not withdraw from all courses, after the drop/add period.

Student Life and State Student Organization Fees

The student life fee and state student organization fee are nonrefundable.

Fees Paid from a Financial Aid Source

If the student's fees were paid from a financial aid source, the refund is returned to the financial aid program, not the student.

Refunds for Partial Withdrawal

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

Refunds for Total Withdrawal

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

Fall and Spring Terms

<u>Drop/Withdrawal Period</u>	<u>Refund %</u>
1st through 5th academic calendar day of the term (drop)	100
6th through 10th academic calendar day of the term	75
11th through 15th academic calendar day of the term	50
16th through 20th academic calendar day of the term	25
after 20th academic calendar day of the term	0

Summer Term

<u>Drop/Withdrawal Period</u>	<u>Refund %</u>
1st through 5th class day of the term (drop)	100
6th through 10th class day of the term	50
after the 10th class day of the term	0

Return of Title IV Funds Policy V.12.1

Part 1.

This policy applies to students who officially or unofficially withdraw from all courses for which they are enrolled for the term and who have received Title IV funds for the term.

Definitions

The term "officially withdraw" refers to those students who complete the withdrawal process by withdrawing from all courses using the web, touch-tone registration system, or by completing the appropriate form.

The term "unofficially withdraw" refers to those students who stop attending all of their courses without withdrawing from all courses using the web or without completing the appropriate form.

The term "Title IV Funds" refers to the subsidized FFEL (Stafford) loans, unsubsidized FFEL (Stafford) loans, Federal Pell Grants and Federal SEOG.

Notifying the College of the intent to withdraw

The college is notified of a student's intent to officially withdraw by one of the following methods:

1. The student withdraws from all courses for the term using the web or touch-tone registration system. The last date the student withdraws from a course during the term is considered to be the date the student began the withdrawal process.
2. The student completes and submits the appropriate withdrawal form in person at the Enrollment Services Center. The "received" date stamped on the form is considered the date the student began the official withdrawal process.

A student's withdrawal date is defined as:

1. The date the student began the College official withdrawal process as specified above, or
2. The midpoint of the term when a student unofficially withdraws without notifying the College, or
3. The student's last date of attendance at a documented academically-related activity if this date falls later than the date established in "a" or "b" above.

All Title IV funds will be refunded if the College cannot document that a student attended any classes within the term.

The calculation of the return of Title IV funds

The return of Title IV funds for all charges including tuition and special fees will be prorated on a per diem basis based on the calendar days in the term up to and including the 60% point in the semester. There is no return of Title IV funds after that point.

In accordance with federal regulations, refunds are allocated in the following order:

- Unsubsidized FFEL loans
- Subsidized FFEL loans
- FFEL PLUS loans
- Federal Pell grants
- Federal SEOG

Students will be notified in writing, mailed to last-known permanent addresses, of all refunds and charges following withdrawal.

College and Student Responsibilities

Lake Superior College responsibilities in regard to the return of Title IV funds include:

- providing each student with the information given in this policy,
- identifying students who are affected by this policy and completing the Return of Title IV funds calculation for those students, and
- returning to Title IV programs any Title IV funds that are due.

Student responsibilities include: notifying the College of the student's intent to withdraw from all courses, and returning to Title IV programs any funds that were disbursed directly to the student and for which the student was determined to be ineligible through the Return of Title IV Funds calculation.

Electronic Media Use Policy V.13.1

Part 1. Objective

The objective of this policy is to ensure that transmissions between and among Lake Superior College authorized computer network account users are consistent with state statutes limiting the use of state services and equipment to state business purposes only. This effort is consistent with existing practices governing other forms of communication on campus including telephone calls, bulletin board postings, the mass distribution of promotional flyers, and the use of intra-campus mail services.

Students and all employees, as well as other campus users, are covered by state statute citations and shall adhere to all electronic media procedures contained therein. It is the intent of this policy to cover all electronic media users, whether via Internet, e-mail, web pages, or any other technologies within the campus community. Any vandalism, destruction of, or damage to equipment, software, or data belonging to the school or others will not be tolerated.

Part 2. Policy

The network account privilege is provided to members of the College community to enhance their ability to quickly and conveniently send and receive written communications and documents for the purpose of conducting College business and facilitating learning. Use of the privilege for personal gain or abusing the privilege for non-College-related business is prohibited.

General Standards and Guidelines

1. Account users are prohibited from using state-funded computer-related transmission lines and equipment to send chain letters, announce garage sales, request solicitations or contributions, promote political advocacy, or to advertise events or items for sale or rent that result in personal gain or revenue for non-College departments, programs, or unapproved organizations. Such uses are contrary to state statute and College policy.

2. E-mail users are asked to exercise care in directing their messages to large audiences and to avoid sending repeats of the same messages as reminders. Many messages sent to all LSC users could be better targeted to smaller groups of users.
3. All electronic communication, including e-mail, web postings, etc., are subject to libel laws, academic misconduct penalties, and harassment-related prohibitions as outlined in the existing student and staff handbooks.
4. A user's password is the key to the network and as such, users are advised that they are responsible for the security of their respective passwords. There are major risks when others know a user's password. Transmissions made using that password are assumed to be initiated by the password's user, though those investigating complaints shall not automatically assume that the author of an offending transmission is the password's user.
5. It is not the intent of this policy to interfere with private communications between individuals, existing employee collective bargaining units, recognized student organizations, and related student service departments who wish to announce upcoming events that may be of interest to the College community.
6. E-mail managers and network system administrators are expected to treat the contents of electronic files as private and confidential. Any inspection of electronic files, and any action based upon such inspection, shall be governed by applicable federal and state laws and by College policies (Part V below).
7. Computer software protected by copyright is not to be copied from, into, or by using campus computing facilities, except as permitted by law or by the contract with the owner of the copyright. Computer and microcomputer software may only be copied in order to make back-up copies, if permitted by the copyright owner. An individual's computer use privileges may be suspended immediately upon the discovery of a violation of this policy.
8. All official LSC publications, whether electronic or otherwise, which speak for the College and its official programs and departments rather than for individual employees and students, must undergo pre-approval via the office of Public Information. Official home pages must also adhere to certain standards established by the Technology Systems Committee (see Part 4) with regard to quality, accuracy of information, consistency with respect to established guidelines, and rules for keeping the information up to date and technically maintained, following the highest editorial standards.

The College recognizes the value and potential of personal publishing on the Internet, and also allows and encourages students, staff, and faculty to experiment with producing personal web pages after proper training. However, the College accepts no responsibility for the content of those pages, but reserves the right to edit or pre-approve these personal home pages, and to remove any pages violating applicable policies above or in the event of disk space problems, unforeseen technical difficulties, or evidence that the page is not being properly maintained.

Part 3. Sanctions for Violations

Complaints by any user receiving electronic transmissions may be submitted to the office of the Dean of Technology and the Virtual Campus or directly to the College President. The Dean of Technology and the Virtual Campus, with the assistance of the Technology Systems Committee (see Part IV) as necessary, will

investigate the complaint and make a determination as to its validity. If a violation did occur, the College will implement the appropriate sanctions identified herein, consistent with employee bargaining unit contracts or student conduct codes (dependent on the severity of the violation and/or history of past violations).

- First Violation - verbal warning and/or warning letter to the violator, with a copy to that person's supervisor/advisor, formally notifying them of additional sanctions if violations continue.
- Second Violation - possible suspension of electronic mail and/or computer privileges to be determined by the Technology Systems Committee.
- Additional Violations - sanctions consistent with federal or state law and/or employee collective bargaining agreements or student conduct codes (could involve referral of matter to criminal authorities).

Appeals

Applicable appeal procedures may be implemented consistent with employee bargaining unit contracts or student conduct codes.

Part 4. Technology Systems Committee

The Technology Systems Committee shall review account practices, procedures, and policies and may make recommendations for improvement to the College President. The Technology Systems Committee shall be headed by the Dean of Technology and the Virtual Campus and made up of at least one representative from each Lake Superior College employee bargaining unit, as well as student and administrative representatives.

Part 5. Confidentiality and/or Privacy

Users are advised that the privacy of data stored or sent on the system cannot be guaranteed; furthermore, there are a number of circumstances in which data stored on the system may be accessed and/or deleted by authorized individuals. Those circumstances include, but are not limited to, performing administrative tasks such as allocation of available disk space, identifying and pursuing breaches of security mechanisms, maintaining the integrity or operational state of the e-mail and related computer systems, collecting aggregate data, etc.

The individual authorizing any search of a user's data must have reasonable grounds for suspecting that the search will reveal evidence that the user has violated a specific College policy, MnSCU policy, state or federal law, or has committed work-related misconduct. The search of a user's data must be reasonably related in scope to the suspicion that generated this search.

If, as a result of a complaint, it does become necessary to monitor the use of the e-mail and related computer systems to determine whether College or MnSCU policies and/or state or federal laws have been violated, or so that the College can provide its services or protect the rights or property of the College, this monitoring shall only take place with the approval of the College President's Advisory Council and/or the Technology Systems Committee.

Student E-mail Accounts Policy V.13.2

The LSC email account is considered the primary means of communication between the student and Lake Superior College. All students are required to establish and maintain a LSC email account. Students are responsible for all information sent to them via their assigned email account.

All account users must adhere to LSC Policy V. 13.1, Electronic Media Use.

Messages sent as electronic mail should meet the same standards for distribution or display as if they were tangible documents or instruments. Users should identify themselves clearly and accurately in all electronic communications.

LSC cannot guarantee the privacy or confidentiality of electronic documents.

Political transmissions are prohibited. This includes transmissions which advocate the election of particular candidates for public office at the federal, state, or local level. This also prohibits sending of messages which contain religious positions or activities. Also banned are those messages that advocate support of or opposition to any particular referendum proposal that will be decided by the voters during a general or special election affecting the public at large.

E-mail and other network resources may not be used for commercial purposes or for personal financial gain. To do so would be a violation of Minnesota state law.

Users are expected to abide by the security restrictions on all systems and information to which they have access. Activities that interfere with or disrupt network users, equipment, or services are prohibited.

Faculty Credentials

Joann Abercrombie-Beaupre, Practical Nursing
M.S., Nursing, University of Phoenix, R.N., Practical Nursing,
B.A., Nursing, College of St. Scholastica; B.S., Health Arts,
College of St. Francis; Diploma, Registered Nurse, St. Luke's
School of Nursing

Deb Amys, Practical Nursing
M.A., Nursing, College of St. Scholastica; B.S., Nursing,
University of Wisconsin-Milwaukee

Lee O. Andresen, History
M.A., Political Science, University of Houston; B.A.,
History/Political Science, University of Wisconsin-Superior

Roslyn Andrew, ERTC\EMT, B.S., Nursing, University of Iowa

Cynthia Annable, Respiratory Care Practitioner
A.S., Respiratory Therapy, North Central Michigan College

John Arola, Counselor
M.A., Educational Psychology-Counseling, University of
Minnesota Duluth; B.S., Economics, University of Minnesota-
Duluth; A.A., Mesabi Community College

Raula Badavinac, Dental Hygiene
B.A.S., Health Education, University of Minnesota-Duluth; A.S.
Dental Hygiene, University of Minnesota-Duluth

Dorian Beaulieu, Art
M.A., Visual Arts/Studio Curriculum, University of Wisconsin-
Superior; B.F.A., K-12 Art Education, University of Minnesota-
Duluth

Diane Beecher, Reading/Study Skills
M.A., Education; B.A., Sociology/English, University of
Wisconsin-Superior

Mark Behning, Fire Technology and Administration
Diploma, Paramedic, Wadena Technical College

Brian Bich, Biology
M.A., Biology, University of South Dakota;
B.A., Biology/Education, Augustana College

Rebecca Bradshaw, Mathematics
B.A., Mathematics, College of St. Scholastica

Keith Brakke, Mathematics
M.S., Industrial Technology, Bemidji State University,
B.S., Recreation and Park Administration, Mankato State
University;

Susan Brashaw, Psychology
M.A., Educational Psychology, University of Minnesota Duluth;
B.S., Health Promotion/Wellness, University of Wisconsin-
Stevens Point

Jeri Brysch, Accounting
M.B.A., Metropolitan State University;
B.A., Accounting, University of Minnesota

Marie Carter Brooks, Psychology
M.A., Counseling and Guidance, University of North Dakota-
Grand Forks; B.S., Speech Pathology/Audiology, Psychology,
Moorhead State University

David Burson, Massage Therapy

Karen Busch, English
M.S., English Education, Bemidji State University; B.S., English
& Secondary Education, Bemidji State University

John Calcaterra, Building Construction
M.Ed., Vocational Industrial Technology Education, University of
Minnesota Duluth; B.S., Industrial Education, Northern Michigan
University; A.A., Industrial Education, Mesabi Community
College

Pat Carey, Accounting
B.A., Accounting, University of Minnesota Duluth

Diek Carlson, Economics
M.A., Economics, George Mason University; B.A., Economics,
St. Cloud State University

Alexander Chernyshev, Music/Piano
D.M.A., (Doctor of Musical Arts), St. Petersburg Conservatory
(formerly Leningrad State Conservatory); M.A., (Master of
Musical Arts), St. Petersburg Conservatory; B.A. (Bachelor of
Musical Arts), Music College, Magadan, Soviet Union

Ann Cizadlo, Mathematics
M.S., Applied Mathematics, University of Minnesota Duluth;
B.A., Mathematics/English, College of St. Scholastica

Julie Clark, Physical Education
M.A. Physical Education, University of Northern Colorado
B.A., Physical Education, California State University-Northridge

Jude Collins, Human Services, Psychology
M.S.Ed., Counseling, University of Wisconsin-Superior;
B.S., Psychology Education, College of St. Scholastica

Mitch Connor, Auto Technician
Diploma, Auto Mechanics, Pine City Technical Institute

Barbara Cox, English/Reading/Study Skills
M.Ed., Reading/Adult Education, University of Wisconsin-
Superior; B.S., Communications/Speech, University of Minnesota
Duluth

Damien Cronin, Psychology
M.A., Psychology, University of Minnesota Duluth;
M.A., Theology, University of Dubuque; S.T.M., Theology,
Aquinas Institute of Theology, St. Louis

W. Boyd Dallos, Speech
M.S.W., Social Work, University of Minnesota Duluth;
B.A., Communication/Psychology, University of Minnesota
Duluth, LICSW

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