

2007-2009 College Catalog



Minnesota State

Community and Technical College

Detroit Lakes - Fergus Falls - Moorhead - Wadena - Online

Table of Contents



Welcome

Campus Profiles

Accreditation

General Information

Access to Information	12
Admissions	12
Registration	16
Student Records	17
Academics	19
Financial	24
Student Information	30
Campus Environment	35
Nondiscrimination in Education and Employment	47

Program Profiles

Program Inventory	58
Program Profiles	60

Course Descriptions

Course Descriptions	108
---------------------	-----

MSCTC Employee Directory

Index

Minnesota State Community and Technical College is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law. Inquiries regarding compliance, rights and other information may be addressed to the Affirmative Action Officer, Dacia Johnson, Assistant Human Resources Director, Fergus Falls campus, Office A525, 218-736-1512. Inquiries regarding the education opportunities or equal employment policies of the Affirmative Action program should be directed to the:

Minnesota State Community and Technical College Compliance Officer 1414 College Way Fergus Falls, MN 56537-1000 Telephone: 218-736-1512 Fax: 218-736-1511	Office of Civil Rights U.S. Department of Education 111 N. Canal Street, Suite 1053 Chicago, IL 60606-7204 Telephone: 312-886-8434 FAX: 312-353-4888; TDD: 312-353-2540 Email: OCR_Chicago@ed.gov	U.S. Department of Education Office for Civil Rights Customer Service Team Mary E. Switzer Building 330 C Street, SW Washington, DC 20202 Telephone: 1-800-421-3481 FAX: 202-205-9862; TDD: 877-521-2172 Email: OCR@ed.gov
--	--	---

Printed copies of the campus drug free policy, security policy, athletic gender equity policy, and student right to know are available by contacting: Student Services Office; Minnesota State Community and Technical College; 1414 College Way; Fergus Falls, MN 56537-1000; (218) 739-7516.

Minnesota State Community and Technical College is accredited by the Higher Learning Commission; Member of the North Central Association (NCA), with additional program-specific accreditation information found in the MSCTC catalog. Information about NCA can be found on their web site at: <http://www.ncahigherlearningcommission.org/> or you can write to them at 30 North LaSalle Street, Suite 2400; Chicago, IL 50502-2504; telephone (312)263-0456.

Information contained in this catalog is periodically updated from time to time without notice. None of the information contained in this catalog should be regarded as contractual in nature. Data contained in this catalog is thought to accurately reflect information available at the time of publication (July 2005). However, Minnesota State Community and Technical College reserves the right to make substantial changes in curricula, course content and goals, procedures, policies, program requirements, and tuition rates / costs at any time deemed necessary between editions. All revisions will take priority over the contents of this edition.

If you use a TTY, you can call us using the Minnesota Relay Service at (651) 297-5353 or 1-800-627-3529 and ask them to place a call to Minnesota State Community and Technical College. Upon request this information will be made available in alternate formats.

Disclaimer Online Catalog

The purpose of the online catalog is to provide students, advisors, counselors, faculty, and college administration a convenient, paperless vehicle for viewing up to date information about MSCTC's programs, courses, and other student service and academic functions. While MSCTC is committed to communicating in a timely and accurate manner, it is important for all online catalog users to understand that this online publication is not intended to create any guarantees about current practices or program/course offerings. MSCTC reserves the right to change or vary the content of this online publication, without notice to current or potential users, when in its sole discretion such changes, updates or variations are warranted. It is the user's responsibility to seek clarification and/or assistance from a college advisor or administrator regarding any content questions. The most current publication of MSCTC's Online Catalog supersedes all prior print or online publications.



An Equal Opportunity Educator/Employer
COLLEGES

A MEMBER OF THE MINNESOTA STATE
AND UNIVERSITIES SYSTEM

Welcome to Minnesota State Community and Technical College

Meet your college. Meet your future.

What do you see in your future: A career program to lead you to employment within two years? A bachelor's degree or beyond? Education accessible to you online? Customized training to fit your business?

As a fully accredited institution, Minnesota State Community and Technical College is ready to help meet your educational future in any way you choose to pursue it.

With the strength of four campuses at Detroit Lakes, Fergus Falls, Moorhead, and Wadena, MSCTC offers its communities any program or service that a region would ask of a two year higher education institution: transfer and liberal arts, vocational and technical education, customized training services for business and industry, continuing education opportunities for life long learners, athletic and cultural opportunities, and strong student support services.

Each campus brings a unique and proud history of more than forty years of providing personal service and program offerings designed to fit your needs. The college staff assures outstanding support services, and the faculty assures excellent teaching. All of this is carefully designed with regard to you as an individual.

The student body at MSCTC takes an active role in all aspects of college life. Our communities express a vital interest in the college and its students by supporting our foundations and through participation in the college's cultural, athletic, and continuing education programs and events.

MSCTC is a place where alumni have distinguished themselves in professional fields throughout the region and across the nation. Graduates of our professional programs work in careers that continue to be in demand. Graduates of our transfer programs excel in their continued higher education pursuits and find many successes beyond college.

We welcome your participation in life at Minnesota State Community and Technical College. As you read through the pages of this catalog, please contact us toll free at 1-888-MY-MSCTC if you have further questions.

Mission

Minnesota State Community and Technical College, as an institution of higher learning, provides opportunities for career success, educational advancement and personal enrichment.

Vision

Minnesota State Community and Technical College will be nationally known as the premier comprehensive community and technical college in the region.

Campus Profiles

Detroit Lakes



900 Highway 34 East
Detroit Lakes, MN
56501
(218) 846-3700
1-800-492-4836
Fax (218) 846-3710

About the Campus

- Campus enrollment – 663
- Food service available on campus
- Daycare available
- Student organizations – Student Senate,
- VICA, Native American Student Association
- Support services available to promote student academic success

About the Community

The Detroit Lakes area offers 412 lakes within a 25-mile radius, giving you access to the heart of Minnesota's vacationland. Recreational attractions are available year around, including downhill and cross country skiing, snowmobiling, golf, and all types of lake activities. Every July 4, thousands arrive in Detroit Lakes to enjoy the beautiful lifelong beach and fireworks show.

- Population of approximately 7,200 in the off season, and 30,000 in the summertime
- 14 challenging golf courses
- Amusement abound from waterslides, go-carts, batting cages, ice-fishing, cross-country skiing, downhill skiing and snowmobiling
- New community fitness & cultural center

Fergus Falls

1414 College Way
Fergus Falls, MN 56537
(218) 736-1500
1-877-450-3322
Fax (218) 736-1510



About the Campus

- Campus enrollment – 1,200
- Food service available on campus
- Student organizations – Athletics, music, service groups, and career specific organizations
- Support services available to promote student academic success
- On campus apartment style housing is available

About the Community

Fergus Falls, the Otter Tail County Seat, is located in West Central Minnesota, about 180 miles northwest of Minneapolis and about 25 miles east of the North Dakota border.

Agriculture is the leading industry of the county, with health care as a major component of Fergus Falls. Between Lake Region Healthcare Corporation, the Fergus Falls Regional Treatment Center, the Fergus Falls Medical group, three nursing homes and several assisted living facilities, more than 1,600 are employed within health care in the community. Otter Tail Power, an electric utility, has its corporate headquarters in Fergus Falls.

- Population 13,471
- 600 acres of beautiful park land
- Otter Tail County has more than 1100 lakes; the area is very attractive for those who like to canoe, boat, water-ski, fish, swim, sail or windsurf.



1900 28th Avenue South
Moorhead, MN 56560
(218) 299-6500
1-800-426-5603
Fax (218) 299-6584



About the Campus

- Campus enrollment – 1,665
- Food Service

available on campus

- Intramural sports
- Student organizations – Student Senate, DEX, BPA, IAAP, SHRO, Student Ambassadors, VICA
- Support services available that promote student academic success

About the Community

The gateway to Minnesota, Moorhead serves as a center for agri-business processing, marketing, and research in the heart of the Red River Valley. Moorhead, Minnesota, and Fargo, North Dakota, are sister cities. Together with surrounding smaller communities, they form an area offering the benefits of a larger metropolitan center while retaining the advantages of a smaller community.

- Population of about 33,000 with a metropolitan population of about 157,000
- Minnesota State Community and Technical College, Minnesota State University Moorhead, Concordia College, and North Dakota State University add about 20,000 students to the Fargo-Moorhead area
- Moorhead parks, bike trails, ice facilities, playgrounds, swimming pools, ball diamonds, cross country ski trails, golf courses, and the Red River provide many recreational activities
- Arts and culture flourish in Moorhead. Local talent supports a community theatre, a symphony orchestra, and a civic opera company



405 Colfax Avenue SW
P.O. Box 566
Wadena, MN
56482
(218) 631-7800
1-800-247-2007
Fax (218) 631-7901



About the Campus

- Campus enrollment – 730
- Food Service available on campus
- Student organizations – Student Senate, VICA, Nursing Club, Carpentry Club
- Support services available that promote student academic success

About the Community

Wadena, meaning small round hill, is centrally located at the crossroads of US Highway 71 and US Highway 10. A community surrounded by numerous lakes and rivers, Wadena has ten well-maintained, beautiful parks. With more than 403 businesses, Wadena serves as a retail trade center to 20 communities within 20 miles. The completion of a new airport facility in 1998 added another dimension to ever expanding opportunities in the community. *A great place to live, a great place to be...Wadena*

- Population of approximately 4,500
- 1,000 lakes within 50 miles
- Outdoor recreation opportunities include cross country skiing, snowmobiling, canoeing, biking, hunting, golfing, rollerblading, horseback riding, and fishing
- Wadena Community Center – fitness room, indoor ice rink
- Madhatters Community Theatre group
- 300 acres of parks

Distance Education

www.distance.minnesota.edu

Minnesota State Community and Technical College participates in *Distance Minnesota* and *Minnesota Online*.

Distance Minnesota provides an online college experience for students seeking online degree/majors, or online courses offered by their college or other member colleges. Member colleges include Minnesota State Community and Technical College, Alexandria Technical College, Northland Community and Technical College and Northwest Technical College. The Higher Learning Commission accredits participating colleges and Minnesota Online accredits the online programs.

Hundreds of Online Courses:

Course schedules are posted at www.distance.minnesota.edu and at www.minnesota.edu. Schedules provide students with course offerings sufficient to complete the distance degrees/majors. Campus students may also take online courses but should first consult with their academic advisors to ensure application to their program of study.

Registration Confirmation and information on how to get started are sent to students' College Email accounts.

Online Degrees/Majors in Career and Liberal Arts/Transfer areas:

Liberal Arts/Transfer

- Associate in Arts

Business

- Human Resources, AAS
- Legal Administrative Assistant, AAS
- Legal Secretary, Diploma
- Medical Office Assistant, AAS
- Medical Office Assistant, Diploma

Health Services & Nursing

- Cancer Registry, Certificate
- Health Information Technology, AAS
- Pharmacy Technology, AAS/Diploma
- Medical Coding and Insurance, Certificate
- Medical Transcriptionist, Certificate
- Radiologic Technology, AAS

Computers, Programming, Web

- Cisco Networking, Certificate
- Computer and Network Technology, AAS/Certificate
- Computer Support Essentials, Certificate
- Computer Programming, AAS

Convenient Online Services Enrich the Student Experience and Enhance Success:

- Web Development, Certificate

Online student advisors to help you prepare for success

- Assistance with degree/major information, guidance on admissions process, distance readiness and basic skills assessment, research on transfer of credit, and new student orientation workshop

Personalized one-stop portal so you can more easily manage your education

- Access to ISRS web services (student record, registration, financial aid, payment), D2L (course room), college email (NetMail), other online services (bookstore, library, technical support, news bulletins and other college information (catalog, program handbook, key contacts/services, email directory)
- Preview a sample course anytime at <http://distance.minnesota.edu> (Sample Course)
- View the Online Tutorials at <http://distance.minnesota.edu> (Tutorial)

Students have four options to access online support:

1. Call 1.800.456.8519 to reach the Minnesota Online Call Center Monday-Friday (7am - 9pm) and Saturday-Sunday (10am - 3:30pm)
2. Email mnsconline@custhelp.com
3. Write Distance Minnesota, PO Box 309, Perham MN 56573
4. Access your local campus staff

Minnesota Online offers a guide to courses, degrees and majors offered by the Minnesota State Colleges and Universities.

Visit www.minnesotaonline.org to view statewide online classes and programs.

Fall 2007 Calendar - For Student Participating in Distance Courses

Note: *This calendar is for DISTANCE courses ONLY; for CAMPUS course dates refer to the Institution MASTER CALENDAR.*

Notice there are many courses offered by partner colleges. Please note their varying due dates. Students registering for online courses taught by partner colleges are subject to tuition due, start, drop/add, withdraw, and end dates set by the partner college. For specifics, see the registration confirmation sent to MyCollegeEmail or the Online Course Dates posted at www.distance.minnesota.edu and in MYOnlinePortal.

Registration period opens for Internet majors	April 1, 2007
Registration period opens for Campus majors	See campus registration schedule
Tuition or Payment Plan Due.....	(See Online Course Dates)
Courses Start	(See Online Course Dates)
Last Day to Drop/Add	(See Online Course Dates)
Last Day to Withdraw	(See Online Course Dates)
Distance courses end.....	(See Online Course Dates)
Grades Available	(See Online Course Dates)

Important: Please see [Online Course Dates](#) for other Online important dates by college.

Spring 2008 Calendar - For Student Participating in Distance Courses

Note: *This calendar is for DISTANCE courses ONLY; For CAMPUS course dates refer to the Institution MASTER CALENDAR.*

Notice there are many courses offered by partner colleges. Please note their varying due dates. Students registering for online courses taught by partner colleges are subject to tuition due, start, drop/add, withdraw, and end dates set by the partner college. For specifics, see the registration confirmation sent to MyCollegeEmail or the Online Course Dates posted at www.distance.minnesota.edu and in MyOnlinePortal.

Registration period opens for Internet majors	April 1, 2007
Registration period opens for Campus majors	See campus registration schedule
Tuition or Payment Plan Due.....	(See Online Course Dates)
Courses Start	(See Online Course Dates)
Last Day to Drop/Add	(See Online Course Dates)
Last Day to Withdraw	(See Online Course Dates)
Distance courses end.....	(See Online Course Dates)
Grades Available	(See Online Course Dates)

Important: Please see [Online Course Dates](#) for other Online important dates by college.

Expand your opportunities

Want to take a class online?
MinnesotaOnline.org

Discover the convenience of online learning. Minnesota State Colleges and Universities offer thousands of courses and 80 certificate, diploma or degree programs online. Check out the wide range of online course offerings from the seven state universities and 25 community and technical colleges.

For more information, go to minnesotaonline.org or call 1.800.456.0159

The Minnesota State Colleges and Universities system is an Equal Opportunity employer and educator.

Custom Training & Workforce Development

About CTS

For over 15 years the Custom Training Services (CTS) division of Minnesota State Community & Technical College has worked in partnership with business clients to assess their organizational development needs and develop custom products and services.

Service Area

CTS primarily serves 15 counties in west central Minnesota and the east central border counties of North Dakota. This is a geographic area of over 20,000 square miles (25% of the Minnesota land mass) and over 250,000 people. CTS also provides associate degree programs to incumbent workers on-site or online to companies headquartered in Minnesota.

Flexible Hour-Based & Credit Bearing Options

CTS offers both hour-based and credit courses. Hour-based training usually focuses on a specific training or production need within a company. To develop the internal workforce for new responsibilities and advancement, companies often use credit courses and degree programs. Credit courses are considered to be a key workforce recruitment and retention tool.

Research and Development

Although our primary focus is the incumbent workforce, CTS also serves as the research and development arm of the college. Because CTS staff is in daily contact with businesses and economic developers, it is in a position to continuously feed information back to the college. CTS develops new programs for businesses that can be offered on the campuses, secure new equipment through grants and serve as an industry informational conduit back to the campuses.

Targeted Products and Services

CTS offer training and services in five major concentrations:

- Allied Health & Emergency Services
- Applied Technology & Manufacturing
- Industrial Technology
- Information Technology
- Leadership Development

Training products can be customized to fit a particular business need or, in some cases, new products can be developed to meet a new technology or strategic focus. Products and services offered through each area of expertise include, but are not limited to:

Allied Health & Emergency Services

- Continuing Education for Nursing, Dentistry & Allied Health
- RN & LPN Refresher courses
- Medication Assistant (ND & MN approved)
- Nursing Assistant Training & Competency Examination
- CPR and First Aid
- First Responder (Initial & Refresher)
- Fire Training

Applied Technology & Manufacturing

- Manufacturing Employee Series
- IT Pro Series
- Automation/Robotics
- Programmable Logic Controllers (PLC's)
- Electrical and Mechanical Troubleshooting
- Carpentry
- Forklift operation
- Welding

Industrial Technology

- Drive & Power Systems for Maintenance Technicians
- Electrical Training Series
- High-Low Pressure Boiler Systems
- Low Pressure Boiler Systems
- MN Commercial Vehicle Inspection
- NEC Electrical Code Update & Refresher
- Power Limited CE
- Sanitation Servsafe & Sanitation Update CE
- Computer Aided Drafting
- Print Reading & Schematics Interpretation
- Related Safety Training

Information Technology

- Microsoft Applications
- Internet
- Assessment and Consulting
- Customized Hardware/Software Computer Training

- Networks

Leadership Development

- Strategic Planning
- Lean Implementation
- Performance Appraisal Systems
- Creating an Internal Training Program
- Building a Customer Service-Driven Company
- Career Pathways
- Launching the New Supervisor
- Supervisory Skills that Build Productive Employees
- Coaching Upward
- Franklin Covey
Seven Habits for Highly Effective

People

Seven Habits for Health Care

Seven Habits for Teens

Focus: Achieving Your Highest

Priorities

Four Roles of Leadership

- Achieve Global
Leadership 2000
Team Leadership
- Customer Service
Customer Service 101
Customer Service Academy
Leading and Managing Effective Customer Service
- Business Writing
- Performance Appraisals

High Quality Trainers, Instructors, and Consultants

CTS uses a network of hundreds of full-time, adjunct and contract instructors and consultants. Business and industry experience is considered essential. Instructors have a variety of practical and instructional experiences.

Convenient On-Site and Campus Delivery

CTS provides training and services primarily on the company's site. In some cases staff will work with companies to set-up training classrooms and labs. If a business is located near a campus, training can be held there.

Partnerships

CTS is dedicated to the idea that developing working partnerships with industry councils, higher education institutions and economic development organizations is the best way to serve its customers. Project partnerships have been formed with a large number of economic development groups, as well as regional higher-education institutions.

CONTACT CUSTOM TRAINING SERVICES

Mary Ryan, Director of Client Services

Custom Training Services

405 SW Colfax

Wadena, MN 56482

(218) 631-7869 - Office

(218) 299-6554 - Fax

(218) 849-2655 – Cell

mary.ryan@minnesota.edu

Bradley Godwin, Director of Manufacturing and Technology

Custom Training Services

900 Hwy 34 East

Detroit Lakes, MN 56501

218.846.3765 (office)

218.846.3706 (fax)

218.849.0243 (cell)

bradley.godwin@minnesota.edu

Karen Schumacher, Director of Health, Leadership and Emergency Services

1900 – 28th Ave. South

Moorhead, MN 56560

218.477.4455 (office)

218.477.4450 (fax)

218.556.5297 (cell)

karen.schumacher@minnesota.edu

Accreditation

Minnesota State Community
and Technical College
Accredited - The Higher Learning
Commission Member - North Central
Association
30 North LaSalle Street, Suite 2400
Chicago, IL 50502-2504
Phone: (312) 263-0456

<http://www.ncahigherlearningcommission.org>

Automotive Service Technology

(Moorhead, Detroit Lakes)
NATEF Certified
National Automotive Technicians Ed
Foundation
101 Blue Seal Drive, Suite 101
Leesburg, VA 20175
Phone: (703)-669-6650
Fax: (703) 669-6125
<http://natef.org>

Cancer Registry Program

(Distance)
North Cancer Registrars Association
1340 Braddock Place, Suite 203
Alexandria, VA 22314
Phone: (703) 299-6640

Construction Electricity

(Moorhead, Wadena)
74 credit program approved as one year of
credit toward students' journeyman's license
by the:
Minnesota State Board of Electricity
1821 University Avenue, Suite S-128
St. Paul, MN 55104-2993
Phone: (651) 642-0800
Fax: (651) 642-0441

Cosmetology

(Wadena)
Approved by the Minnesota State Board of
Cosmetology

Criminal Justice

(Fergus Falls, Moorhead)
Minnesota Board of Peace Officer Standards
& Training (MPOST)
1600 University Avenue, Suite 200
Saint Paul, MN 55104
Phone: (651) 643-3060
Fax: (651) 643-3072

Dental Assisting

(Moorhead)
Commission on Dental Accreditation of ADA
211 East Chicago Avenue
Chicago, IL 60611-2678
Phone: (312) 440-2500
Fax: (312) 440-2915

Dental Hygiene

(Moorhead)
Commission on Dental Accreditation of ADA
211 East Chicago Avenue
Chicago, IL 60611-2678
Phone: (312) 440-2500
Fax: (312) 440-2915

Health Information Technology

(Distance)
Commission on Accreditation for Health
Informatics and Information Management
Education
Accreditation services
233 N Michigan Ave, 21st Floor
Chicago, IL 60601-5800
Phone: (312) 233-1100

Note that as of March 1, 2005, all HIM
programs currently accredited by CAAHEP
will transfer to accreditation by CAHIIM, the
accrediting organization of AHIMA. All current
and future accreditation decisions will be
made by CAHIIM.

Medical Lab Technician

(Fergus Falls)
National Accrediting Agency for Clinical
Laboratory Science
8410 W. Bryn Maur Avenue, Suite 670
Chicago, IL 60631
Phone: (773) 714-8880
Fax: (773) 714-8886

Accreditation

Nursing (AS)

(Detroit Lakes, Fergus Falls, Moorhead, Wadena)
MN Board of Nursing
2829 University Ave. Southeast, #200
Minneapolis, MN 55414-3253
www.nursingboard.state.mn.us
Phone: (612) 617-2270
Toll Free: 888-234-2690 (MN, IA, ND, SD, WI)
Fax: (612) 617-2190

Pharmacy Technology

(Wadena)
American Society of Health Systems
Pharmacists
7272 Wisconsin Avenue
Bethesda, MD 20814
Phone: (301) 657-3000
Fax: (301) 657-1258

Plumbing

32 credit program approved as 800 hrs.
towards students apprenticeship card in
(MN),
and 1600 – 2000 hrs. in (ND) by the:
Minnesota Department Of Labor & Industry
Construction Codes & Licensing Division,
Licensing Unit
443 Lafayette Road N. St. Paul, MN 55155-
4342
Phone: (651) 284 – 5067
Fax: (651) 284 – 5748
www.doli.state.mn.us

Practical Nursing (Diploma/AAS)

(Detroit Lakes, Fergus Falls, Moorhead, Wadena)
MN Board of Nursing
2829 University Ave. Southeast, #200
Minneapolis, MN 55414-3253
www.nursingboard.state.mn.us
Phone: 888-234-2690 / (612) 617-2270
Fax: (612) 617-2190

General Information



Access to Information

Admissions

Registration

Student Records

Academics

Financial

Student Information

Campus Environment

**Nondiscrimination in
Education and Employment**

Access To Information

The College will make available the following information to all enrolled and prospective students:

STUDENT RIGHT TO KNOW (GRADUATION / COMPLETION RATE)

The purpose of this information is to disclose annual student completion and graduation rates. This report is available from the College Placement Office by calling 1-877-450-3322.

CAMPUS SECURITY REPORT

The purpose of this report is to inform the campuses of campus crime prevention programs, crime reporting procedures, emergency response, and a three-year statistical history of criminal activity on the College Campuses. A copy of the Campus Security Report is distributed annually to students and employees and is available from campus Student Services office. Prospective students and employees can obtain this information from the college web site: www.minnesota.edu or calling 1-800-426-5603.

COST OF ATTENDANCE

Information on tuition, fees, estimate of book and supplies costs, and any additional known costs associated with a particular program can be obtained from Student Services on each campus. Contact the campus Help Desks for laptop requirements and costs.

TUITION REFUND

Information concerning Tuition Refund Policy for the return of Title IV grants or loans is located in the student handbook and in this catalog or on the web site: www.minnesota.edu.

DROP / ADD / WITHDRAWAL

The purpose of this policy is to explain how to begin and complete the withdrawal process. Refer to the College Drop / Add / Withdrawal Policy located in the student handbook and in this catalog.

ACADEMIC PROGRAM INFORMATION

A listing of faculty associated with a program or other instructional personnel is available on the College website: www.minnesota.edu.

ACCREDITATION

The College is accredited by the Higher Learning Commission; Member of the North Central Association (NCA); 30 North LaSalle

Street, Suite 2400; Chicago, IL 50502-0504; phone: (312) 263-0456. Additional program specific accreditation information can be found in this catalog and on the website: www.minnesota.edu.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT (FERPA)

The purpose of the Family Education Rights and Privacy Act is to afford certain rights to students concerning their education records. The primary rights afforded are the right to inspect and review their education records, the right to seek to have the records corrected, and the right to have some control over the disclosure of information from the records. The College FERPA Policy is located in the catalog and is included in the Student Handbook.

FINANCIAL ASSISTANCE

Information on the availability (types of aid available), eligibility, selection criteria, criteria for amount determination, satisfactory progress standards, re-establishing satisfactory progress status, disbursement methods, student work conditions and conditions for repayment of loans is included in the Student Handbook, Catalog, on the Web site: www.minnesota.edu or obtained from the campuses Financial Aid office.

Admission

Minnesota State Community and Technical College (MSCTC) as an open enrollment institution, admits students to ensure the best opportunity for their educational success. Comprehensive academic offerings provide opportunity for training and education to students from a broad range of ability levels and interests.

Orientation

All students attending classes at the College will be required to attend an orientation session prior to registering for courses.

Orientation provides a means to familiarize the students with college policies and procedures and to make them aware of their responsibilities as a student.

Admission Procedures And Policies

MSCTC considers all applications for admission. No applicant is refused admission on the basis of race, color, religion, disability, national origin, age, sex or lack of English skills. Students who

have graduated from high school, the equivalent, General Education Development (GED) certificate holders, as well as current high school students who meet the Post Secondary Enrollment Options (PSEO) program criteria may apply for admission to the college. All students will be charged a \$20 application fee. An application for admission may be made at any time.

Admission to the College does not automatically qualify a student for all courses and curricula; some career programs may have special prerequisites and admissions requirements.

Students on academic suspension from another college or university shall not be admitted during the term of that suspension unless they have successfully completed an Academic Appeal at the MSCTC campus of admission. If the appeal is approved, students will be admitted with the status of probation at MSCTC. Students applying with a probationary status from a previous college will be admitted with the status of probation at MSCTC. Students with successful appeals may not be eligible for financial aid.

Ability To Benefit

Students who do not have a GED or high school diploma may qualify for admission under the Ability to Benefit Policy. This policy allows student to be assessed by taking the Accuplacer assessment for reading, writing, and math placement. Achievement of certain scores on this test will allow students to be admitted to the college.

Advanced Standing/Placement

The College awards credit for previously gained knowledge and skills that are equivalent to coursework at the College. Such credit may be granted through various means: direct transfer of courses of equivalent nature that were completed at regionally accredited institutions of higher education or other examination; and/or through formal Tech. Prep agreements with high schools.

The amount of credit granted by the College for an exam will not exceed the credit granted for an equivalent course or course sequence at the College. In addition, credits will not be granted for exams that overlap completed coursework or standardized tests for which the College has already issued you credit.

Credit granted through AP and CLEP programs may be used for partial fulfillment of the general education distribution requirements for the AA, AS and AAS degrees.

Please contact the Registration Office with questions about advanced standing / placement.

Assessment Testing And Course Placement

Assessments in reading, writing, and math are required of all new students who enroll in more than eight credits at MSCTC. Testing must be completed before registration will be permitted. Schedules of test dates and times are available through the MSCTC campus admissions office. Accommodations for students with disabilities who need to complete assessment testing should be arranged in advance through the college's center for students with disabilities.

As an "open door" institution, MSCTC provides the opportunity to advance the education of all individuals regardless of prior academic preparation.

Students who do not meet minimum test scores in reading, writing and/or math will be required to enroll in developmental courses in those areas. Students must demonstrate proficiency in those courses by receiving a passing grade before enrolling for the next course in the particular discipline. These courses provide the basic skills required for success in all college courses.

Developmental courses are not intended for transfer; credits earned in these courses will not meet distribution or elective requirements for graduation.

Credit for Experiential Learning

Students may earn academic credit in certain college courses if they have gained skills and knowledge from previous education, job training, self-study, or occupational experiences. In some programs, students may be permitted to start at a more advanced level if they can demonstrate college-level competency similar in nature and quality to the competency they would acquire in courses offered by the College.

Academic credit may be given for credit by examination, proficiency demonstration, and/or college-level experiential learning as documented by portfolio assessment. Students will be charged applicable tuition rates and fees.

Credit By Examination

A student may challenge any program level course at Minnesota State Community and Technical College through an examination for credit with the appropriate department by the drop/add date. The student should obtain a "Credit by Examination" form from the Student Services and or Distance office to secure approval for such an examination from the appropriate faculty. A \$50.00 per credit (lecture or lab) fee will be assessed for the course that the student intends to challenge. If the student passes the test, a grade of CR (credit) is recorded on the student's transcript and the credits are awarded toward their degree. If the student fails the test, the attempt is not recorded on the student's transcript.

A student MAY NOT repeat a challenge examination.

Financial aid amounts are based in part on the number of credits students register for each semester. Any test-out credits are not counted toward determining a student's status of full-time, three-quarter-time, half-time, or less than half-time to determine financial aid awards.

A student may not test-out of a course which already appears on the student's record. Students are encouraged to complete the credit by examination process well in advance of the term but must complete it by the drop/add date.

Refer to the College Residency policy to determine any limitations to earning credits by examination.

Student Applicants

Application for admission by all prospective students is made on the application for admission form available online at www.minnesota.edu or the Minnesota State Colleges and Universities admission form available online at www.mnscu.edu. Applicants must pay a \$20 non-refundable application fee.

After completing the student portion of the application, applicants must contact their high school and any previous transfer institutions to have all transcripts sent to the campus of application.

Campus Visit

Visitors are always welcome at MSCTC and a campus visit is available for prospective students. Campus visits are hosted by students, faculty, and/or staff who strive to ensure prospective students see all aspects of college life at MSCTC. Elements of a campus visit may include the following:

- Meeting with a member of the admissions staff to discuss class offerings, career goals, and application and admissions procedures.
- Other appointments may include meeting with a program faculty member, learning services staff, and/or financial aid staff upon request.

At the Fergus Falls campus, special arrangements can be made for a campus tour conducted by current students, campus housing tours, and appointments with athletic staff, or music and theater faculty.

Prospective students are encouraged to notify the admissions office one week ahead to ensure that the admissions office is able to provide a well-planned visit. Arrangements can be made by contacting the campus directly, calling MSCTC toll free at 1-888-696-7282, or contacting us via the college website at www.minnesota.edu.

Immunization Requirement

All students must show proof of immunizations against diphtheria, tetanus, measles, mumps, and rubella. There are two exceptions 1) if born prior to 1957, or 2) if graduated from a Minnesota high school in 1997 or thereafter. Forms are available at the Student Services office.

International Students

Qualified international students must complete all of the following steps to be accepted for admission to MSCTC. I-20 forms, authorizing admission into the United States for educational purposes, will be issued when all admission requirements are met and applicants have been accepted.

International applicants must:

- Complete and sign the MSCTC International Student Application for admission form available online at www.minnesota.edu.
- Send a \$20 non-refundable application fee.
- Submit a transcript of high school grades. All records must be officially certified. Records must be in English, listing subjects

taken and interpretation of grades received in comparable U.S. units.

- Submit a detailed financial statement.
- Submit proof of sufficient funds to cover all costs for an entire academic year. Applicants should not rely upon financial aid from the college or from other employment in the United States as a source of income; as a rule, neither financial aid nor permission to be employed is available.
- Provide documentation demonstrating English proficiency. A Test of English as a Foreign Language (TOEFL) score of 500 or more is acceptable.
- Provide a health form. The applicant may submit a copy of a passport physical. An international student enrolled at Minnesota State Community and Technical College is required to carry personal health insurance.

Minnesota High School-College Course Options

Minnesota Post-Secondary Enrollment Options (PSEO) Program

The purpose of the Minnesota Post-Secondary Enrollment Options act is to promote rigorous educational pursuits and to provide a wider variety of coursework options for Minnesota's 11th and 12th grade students. Students receive both college credit and credit toward high school graduation requirements. No charge is made to the student for the cost of tuition, fees or required textbooks and materials. To participate in the PSEO program, High School Juniors will be required to have a cumulative GPA of 3.2 and High School Senior will be required to have a cumulative GPA of 2.8.

High school students are encouraged to carefully consider participation in the program before applying for admission and to discuss the PSEO program with parents and their high school counselor or principal. All participants in the PSEO program are personally responsible for meeting high school graduation requirements.

Application packets for the PSEO Program can be obtained by contacting the campus counselor/advisor.

All applicants must present a completed MSCTC Application for Admission form and a transcript of their high school academic record to the campus admissions office. All applicants must meet the assessment score requirements in English and math before being accepted into the

program. PSEO students will be able to register for courses on a space available basis. PSEO students may not enroll in developmental courses through the PSEO program.

High School Tech Prep Programs

The College works in partnership with regional high schools to prepare high school students to transition into postsecondary technical education programs. High school students may be able to enroll in courses that will be eligible for college credit. See a high school or college advisor for details.

Special Students

A student who registers for seven credits or less in a semester and who does not intend to immediately pursue a certificate or degree program need not go through formal admission procedures. No proof of high school graduation is required of this type of student.

Veterans Benefits

The majors offered by MSCTC have been approved by the Minnesota State Approving Agency for veterans and their dependents eligible for educational benefits under Chapters 30, 31, 32, and 35 of the Veterans Readjustment Act of 1977. Under the new GI Bill, Chapter 106 (educational assistance program), Reserve and National Guard personnel may be eligible for educational benefits. Students should contact the Veterans Certifying Official or their local Veterans Administration Office to obtain applications and determine eligibility and entitlement.

Veterans may receive credit for appropriate military training. The campus transfer specialist personnel will determine the number of credits acceptable to transfer.

Registration

All students who have completed the requirements for admission and have attended an orientation session are eligible to register for courses. Registration priority is based on cumulated credits completed.

Independent Study

In special circumstances, a student may obtain permission to take a regular course on an independent study basis. Students also have the opportunity to expand on an area of special

interest by developing an independent study project with an instructor and obtaining the approval of the Dean of Academic Affairs.

Preparing To Transfer

Preparing to Transfer to a Four-Year University

Public colleges and universities are working to make transfer easier. Students must plan ahead, ask questions, and use pathways created by transfer and/or articulation agreements.

Students currently enrolled at MSCTC:

Discuss your plans with MSCTC counselors and campus transfer specialists. Both are located in the Student Services area. Call or visit intended transfer institution. Obtain the following materials and information:

- College catalog
- Transfer brochure
- Information on admissions criteria and on materials required for admission (e.g., portfolio, transcripts, test scores). Note that some majors have limited enrollments or their own special requirements such as a higher grade point average.
- Information on financial aid (how to apply and by what date).

After reviewing these materials, make an appointment to talk with an advisor/counselor in the transfer institution or program. Be sure to ask about course transfer and admission criteria.

If not currently enrolled in a college or university, students might begin to plan by meeting with a transfer specialist or admission officer from the intended transfer institution.

Understanding How Transfer of Credit Works:

Completion of the 40-credit Minnesota transfer curriculum at MSCTC assures the acceptance of these credits as having satisfied the general education requirements of Minnesota State Colleges and Universities and some colleges within the University of Minnesota. In addition, the four-year institutions in the state strongly recommend that students complete their associate degrees before transferring. The College has articulation agreements with several of these institutions guaranteeing the acceptance of the associate degree as completing the first two years of a baccalaureate degree. Check with the college counselors for more information.

For students who transfer without completing an associate degree or the Minnesota Transfer Curriculum, the receiving college or university will decide which credits transfer and whether those credits meet its degree requirements. The accreditation of both sending and receiving institution can affect the transfer of credits earned.

Institutions accept credits from courses and programs like those they offer. They look for similarity in course goals, content, and level.

Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is "Will credits fulfill requirements of the degree or program?" Not everything that transfers will apply toward graduation.

Students who change career goals or majors may not be able to complete all degree requirements within the usual number of graduation credits.

Applying for Transfer Admission:

Application for admission is always the first step in transferring. Fill out the application prior to the deadline. Enclose the application fee. Request that official transcripts be sent from every institution attended. Be prepared to provide a high school transcript or GED test scores as well.

After the college notifies students of acceptance for admission, transcript credits will be evaluated for transfer. A written evaluation should indicate which courses transfer and which do not. How courses specifically meet degree requirements may not be decided until orientation or upon declaring a major. Be advised that some major departments may evaluate courses and credits differently than the evaluator who approves admission. Some courses may not meet specific department or major requirements.

Questions about the evaluation may be addressed to the registrar's office. Ask to speak with the credit evaluator. Ask why judgments were made about specific courses. Many concerns can be cleared up if you understand why decisions were made. If not satisfied, you can appeal.

Your Rights as a Transfer Student:

- A clear, understandable statement of an institution's transfer policy.

- A fair credit review and an explanation of why credits were or were not accepted.
- A copy of the formal appeals process and the ability to appeal any decision made.

Usual appeals steps are:

- Student fills out an appeals form. Supplemental information provided to reviewers (a syllabus, course description, or reading list) can help.
- Department or instructor reviews.
- Student receives, in writing, the outcome of the appeal.
- Student can appeal decision to the college's academic dean.

Upon student request, a review of eligibility for financial aid or scholarships is held.

Transfer Of Credit

Students wishing to transfer credit from another institution to Minnesota State Community & Technical College must make that request by submitting the proper course transfer request form and requesting that an official transcript of their grades be sent to the registrar's office at the appropriate campus for evaluation. Students may be required to provide course descriptions from their previous institution. Technical courses need to have been completed within the last five years unless it is waived by the Dean.

Courses in which a student has earned a grade of a "C" or better will be eligible for transfer.

Transfer Of Program Within MSCTC

Students who desire to transfer to a program at another campus of Minnesota State Community & Technical College must initiate the process at the Admissions Office at the new campus to determine if enrollment space is available. Prior to registration or transfer, students must declare, subject to the approval of both campuses, their program major and the campus from which they intend to graduate.

Student Records

Confidentiality Of Student Records FERPA Notification & Student Directory Data

Minnesota State Community and Technical College maintains records about students in various places within the college. For example,

the admissions office maintains student records, as does the registration office. Under federal and state law, students have certain rights concerning the records the college maintains.

Under the Minnesota Government Data Practices Act (MGDPA) and the Family Educational Rights and Privacy Act (FERPA), students have rights:

- To inspect and review their educational records.
- To request an amendment of records for the purpose of correcting inaccurate or misleading records, or records that violate student privacy or other rights in some fashion.
- To have a hearing regarding records which students believe are inaccurate or misleading, if the college does not amend records upon request.
- To place a written statement explaining the disagreement with the college in their records, if the college does not amend records after the opportunity for hearing about whether the records are inaccurate or misleading.
- To consent to disclosures of information that identify students personally, except to the extent that disclosures are allowed without consent under state and federal law.
- To file a complaint with the United States Department of Education if students believe the college is not meeting the requirements of the federal law. Written complaints should be sent to: Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue, S.W. Washington, DC 202-2-4605.
- To obtain a copy of the college's complete policy regarding education records. The college has policy information available in this Catalog and the Student Handbook.

FERPA and the MGDPA permit disclosures of student information without consent to college officials with legitimate educational interest. A college official is a person employed by the College in an administrative, supervisory, academic support or support staff position, a person or company with whom the College has contracted, a student serving on official College committees, a person serving on the Board of Trustees or in the Office of the Chancellor, or assisting another College official in performing his or her tasks. A College official has legitimate educational interest if the official needs to review

an education record in order to fulfill his or her professional responsibility.

Records maintained on students are categorized as follows:

- **Public Data** – Data that has been designated as directory data is considered public. The Student Directory Data policy defines directory data for MSCTC.
- **Private Data** – Almost all educational data is private. Private data is accessible to the subject of the data and to those who have a business need for access to the data. Students must provide the College with prior written consent for disclosure of private data.
- **Confidential Data** – Confidential data is not accessible to the subject of the data. Confidential data is accessible only to individuals or agencies authorized by law to have access to the data.

Student Directory Data

Student directory data is considered public data, and the College may release it without a student's written consent. A student may, however, make a written request to Student Services to prevent the College from releasing directory data without the student's written consent. Minnesota State Community and Technical College defines directory data to include:

- Name.
- Major field of study.
- College email address.
- Honors and awards.
- Most recent educational agency or institute attended.
- Dates of attendance.
- Weight and height (used for student athletes only).
- Dates of graduation, certification and awards.

Notice to students: If you are currently enrolled in or receiving services from one college or university within the Minnesota State Colleges and Universities (MnSCU), your academic records from that institution are available to officials of other schools within MnSCU while you are in attendance. If you seek or intend to enroll at another MnSCU institution, your academic records from other institutions are also accessible to officials at the school where you are seeking or intend to enroll. Disclosures of your records to other schools under other circumstances may require your prior written

consent. Students should contact the Dean of Student Services if they have questions about their rights.

Change In Student Record

The College expects students to report any name, address, program/major, telephone number or other record changes to the student services office. This ensures accuracy of student information and allows the college to communicate important information to students. Distance students should use the appropriate on-line form to make such changes.

Students who have name changes must provide legal documentation when completing the change in student record process.

Academic

Classification Of Students

A student who has earned less than 30 credits is classified as a freshman. One who has earned 30 credits or more is classified as a sophomore. Two other terms are used occasionally to refer to a student's status: "part-time" refers to students who carry less than 12 credits and "special" refers to occasional students who are not currently pursuing a degree or certificate.

Graduation Policy

Minnesota State Community and Technical College (MSCTC) grants Associate in Arts Degrees (AA), Associate in Science Degrees (AS), Associate in Applied Science Degrees (AAS), Associate in Fine Arts Degrees (AFA), Diplomas, and Certificates. The following general requirements apply to all candidates for each of the degrees.

General Requirements:

- Achieve a minimum cumulative GPA of 2.00.
- Successfully complete all required coursework for the program major(s) according to criteria established by the college. The actual graduation date will be within the semester in which all coursework, transfer credits and related materials required for program completion are finalized.
- Programs may have additional program graduation requirements. These requirements are published and available from program faculty and advisors.
- Students must earn 20 semester credits/equivalent or 1/3 of the credits

required for graduation at the granting institution, whichever is less.

- Requirements are established at the time of admission to the program.
- Students must complete an application for graduation. The application can be obtained in the student services office or online at www.minnesota.edu.

Career Exploration And Placement Services

The College assists students with career exploration through one-on-one and/or group assistance and counseling. Each campus offers career interest inventories and other resource information and customized coursework and services to help students create and meet their educational and career goals.

For technical programs, the College also assists students in technical programs with placement services for one year following graduation. While the College does not accept responsibility for a student's securing employment, we offer services designed to aid students in the job seeking process. The College services include, assistance with portfolio and resume development and interviewing and job searching techniques.

Academic Assessment

Program faculty assess the effectiveness of student learning in programs and disciplines each year. Career programs share results with their industry-based advisory committees and then adjust their curriculum as appropriate. All program assessment plans and results are posted on the College intranet.

Academic Support Services

The College provides students with numerous services to support their educational experience. Services have been designed uniquely on each campus to meet the needs of the student population. Services may include:

- Academic advising, counseling and support
- Career counseling, resources and assessment
- Career placement services
- Computer labs and Help Desk services
- Free one-on-one and/or group tutoring, study skills assistance and other learning services
- Individual counseling and aid in making referrals

- Library and audiovisual services
- Multicultural programming and services
- Services for students with disabilities
- Writing assistance

Attendance/Non-Attendance

Students are responsible for their attendance in the courses for which they are enrolled and are expected to attend all class meetings. Although college-sponsored activities, illness, or personal emergencies necessitate absence from class, students are responsible to make up all assigned work.

The College reserves the right to administratively withdraw students for non-attendance.

Student Credit Load

The average semester load is 15-18 credits. The maximum number of credits that a student is allowed to take in any one semester is 18. A student may petition the Academic Dean to take more than 18 credits in one semester.

Credit By Examination

Students may be permitted to obtain credit for some courses listed in the current college catalog by passing an examination in that course. To request credit by examination, the student should contact the campus registrar who will inform the student on process and applicable fees. If the student successfully completes the examination, the student may have the equivalent course credits applied to the student's academic transcript.

A student may not repeat a challenge examination and may not challenge a course which appears on the student's transcript.

Auditing Courses

Students intending to audit a course (earn no credit) are required to register for the course-indicating audit. Auditing students may not need to meet regular course requirements but should confer with the instructor as to their privileges and responsibilities in the course. A student may change from credit to audit status or audit to credit status any time during the first five (5) days of the semester. Courses audited are not included in determining the total credits earned toward a major or the cumulative grade point average.

Drop/Add

A student must drop a class through the first five (5) instructional days of a semester to avoid being billed for the course. No entry will be made in the student's academic record if a course is dropped within the first five (5) instructional days of a semester.

A student may add a class during the first 5 days of instruction. Late admission can only be approved by the course instructor. Proportional time limits may be applied to courses of shorter duration.

A student must withdraw from a course no later than the sixtieth (60) instructional day of the semester. A course dropped after five (5) instructional days and by the sixtieth (60) instructional day of the semester will appear on the student's record as a withdraw (W).

Tuition and fees will be assessed for all courses for which the student is registered after the 5th instructional day of the semester. Courses dropped after the fifth instructional (5) day will not reduce the tuition obligation.

Student financial aid is calculated based on the number of credits a student is registered for at the end of the drop/add period. Accumulated withdrawals will impact financial aid eligibility and may require repayment of received funding.

The college does not automatically drop or withdraw a student for non-attendance. When students do not officially withdraw, they will receive the earned grade in each course for which they are registered, and will be responsible for tuition and fees for those courses. It is the student's responsibility to drop or withdraw from a course.

The College reserves the right to administratively drop a student for non-attendance in special circumstances.

Withdrawing from the College

The College encourages students to visit with their academic advisor and the Student Services Office prior to making a decision to complete the withdrawal process. Withdrawing may have an impact on student repayment of financial aid, eligibility to receive financial aid, and satisfactory academic progress.

The College refunds tuition and fees to students who withdraw in accordance with MnSCU policy.

After the fifth day of the semester, the College issues refunds according to the following schedule:

Students who withdraw from all courses will receive the following refund, for Fall & Spring semesters:

<u>Date of Withdrawal</u>	<u>Refund allowed</u>
6 th through the 10 th day of the term	75%
11 th through the 15 th day of the term	50%
16 th through the 20 th day of the term	25%
21 st day and after	No refund allowed

Summer sessions and other terms at least three weeks in length but less than ten weeks in length:

<u>Date of Withdrawal</u>	<u>Refund allowed</u>
6 th through the 10 th day of the term	50%
11 th day and after	No refund allowed

Please note that tuition and fee refunds do not apply to withdrawing from individual courses.

Minnesota General Education Transfer Curriculum

The Minnesota General Education Transfer Curriculum is the result of a collaborative effort by all of the two-and four-year public colleges and universities in Minnesota to define a common philosophy toward general education. The goal of this effort is to help students transfer their work in general education. Completion of a defined transfer curriculum at one institution enables a student to receive credit for all lower-division general education upon admission to any other institution.

Students who complete a general education transfer curriculum are certified in ten areas of competency by faculty at the sending institution. Beginning January 1, 2002 all Minnesota Transfer Curriculum Courses offered by MnSCU institutions must transfer within MnSCU into the goal areas as designated by the original institution. The following are the ten goal areas of the Minnesota Transfer Curriculum:

Minnesota Transfer Curriculum Goal Areas:

1. Written and Oral Communication
2. Critical Thinking
3. Natural Sciences
4. Mathematics/Symbolic Systems
5. History and the Social and Behavioral Sciences

6. The Humanities—the Arts, Literature, and Philosophy
7. Human Diversity
8. Global Perspective
9. Ethical and Civic Responsibility
10. People and the Environment

This catalog contains a complete listing of all the Minnesota Transfer Curriculum Courses and their corresponding goal areas. The College website, www.minnesota.edu, also contains this listing.

Degree Requirements

The requirements for the **AA, AS, AAS, AFA** degrees, **diplomas**, and **certificates** are detailed in this catalog, in addition to being located on the MSCTC website at www.minnesota.edu

Please consult your academic advisor or contact Student Services if you have any questions about the course requirements for your chosen degree, diploma, or certificate.

General Studies Courses

General Studies Courses are offered to students in diploma and certificate programs to prepare students to enter the workforce. These courses may transfer to other technical college programs, but may not transfer to baccalaureate degree programs unless an articulation agreement exists between the College and the granting institution.

Academic Program Assessment

All academic programs at the College shall develop and implement plans for assessing effectiveness of student learning. For academic programs, these plans will include assessment of all approved Program Learning Outcomes to provide evidence of student learning at the entry-level and/or at the level deemed appropriate for graduates of college programs. The results of these assessments shall be used by the program faculty to plan strategies for improved student learning.

In addition to assessing student learning, the College works in other ways to assess the quality of students' experiences at the College, both inside and outside the classroom. As a result, students will be asked to participate in a variety of surveys and other assessments, such as course surveys, satisfaction surveys, comment cards, and focus groups. The College

will use the feedback from these assessments to determine ways to improve.

Academic Advising

It is the College's philosophy that academic advisement is essential to the growth and development of each individual student. It is the intent of the College to provide the student with personally relevant information and instructional assistance.

Mid-Term Progress

Students should meet with their Instructors to review mid-term progress.

Final-Term Grades

Final grades are provided to students upon completion of an academic term.

Grading

The College uses letter grades to document student academic achievement as follows:

- A = Excellent
- B = Above Average
- C = Average
- D = Below Average
- F = Failing
- V = Audit**
- I = Incomplete***
- W = Withdraw
- CR = Credit for test out
- NC = No Credit

**Audit. A student "auditing" a course will pay the normal tuition rate.

*** Incomplete Grades. Students may request of the instructor that they be assigned a graduate of Incomplete (I). Such a request must be approved in writing by the instructor. An Incomplete (I) grade must be removed by completing course requirements by the end of the subsequent semester. Any Incomplete (I) grade not removed will be changed to an "F." Any students on Academic Probation is ineligible to request an Incomplete grade (I).

Repeating Courses

In order to successfully complete a course as defined by program requirements, a student may enroll no more than three (3) times in the same course. Repeating a course will not remove previous attempt from the student's transcript. The highest grade will be used to compute the student's GPA if the student submits a completed course repeat form to the

registrar. Exceptions include: choir, music lessons and student newspaper. Financial aid may not cover the cost of repeated courses. The College advises student to check with the financial aid office.

Grade Point Average

The following system will be used to determine a student's grade point average (GPA).

- A = 4 grade points per credit
- B = 3 grade points per credit
- C = 2 grade points per credit
- D = 1 grade points per credit
- F = 0 grade points per credit

A grade point average (GPA) is determined by the sum of all grade points divided by total credits attempted, except those credits that carry grades other than the usual A - F grades.

Academic Forgiveness

Students who have interrupted their college education for a period of five (5) years or more may appeal to exclude selected prior college course work with grades of "D" and "F" from their GPA. Such courses and their actual grades appear on the student's academic record, but letter grades are not calculated for GPA purposes. A notation of academic forgiveness will be placed on the student's transcript. Excluded courses cannot be used to satisfy any academic requirement. A student may use this option only once by submitting a written appeal to the Campus Academic Dean. This policy applies at any point in time during a student's enrollment with MSCTC.

Satisfactory Academic Progress

All students enrolled in a program of study must maintain satisfactory academic progress in order to remain enrolled. Students may face probation or suspension in addition to risking eligibility for financial aid if they do not meet satisfactory academic progress standards.

Grade Point Average Requirement

All students are required to maintain an acceptable Grade Point Average (GPA). The minimum standard is progressive based on cumulative registered credits and is detailed below.

Cumulative Registered Credits GPA	Minimum Required
0-5	-----
6-23	1.75

24+

2.00

Credit Completion Requirement

All students who have enrolled in 6 or more credits must complete 67% of their attempted credits.

Academic Appeals

Students may appeal any academic issue and discuss it with the appropriate employee(s) and/or administrator(s) as established by College policy or procedure. Students have the right to seek remedy through the College's designated academic appeal process. Students should use available informal means (direct conversation) to resolve disputes before filing an appeal. There will be no retaliation of any kind against students, faculty, or staff who participates in the appeal process. For more information about filing an academic appeal, students may contact Student Services.

Definitions:

Academic Appeal: A written request for reconsideration of the application of a college academic policy or procedure.

Retaliation: Retribution of any kind taken against a student for participating in an appeal, complaint, or grievance.

Student Grievance

Students have the right to file a grievance in writing if they have allegations of improper, unfair, arbitrary, or discriminatory action by an employee involving the application of a specific provision of a college rule or regulation. Students should use available informal means to have decisions reconsidered before filing a grievance. No retaliation of any kind shall be taken against a student for participation in a complaint or grievance. These procedures shall also protect data privacy rights. For more information on filing a grievance, students may contact Student Services.

Program Interruption

The academic calendar of MSCTC is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, acts of God, civil disorder, and war. In the event of any such occurrences, the college will attempt to accommodate students. The College will not, however, guarantee that courses of instruction, extracurricular activities, or other college programs or events will be completed or rescheduled.

Financial

Tuition

Tuition for a Minnesota resident or non-resident is set annually by the Board of Trustees/MnSCU and charged on a per credit basis.

Minnesota State Colleges and Universities Policy 5.12 requires that tuition and fees will be due by the end of the 5th business day after the term begins. MSCTC shall drop all classes for students who have not paid in full, do not have a financial aid deferment, or have not established a payment plan. MSCTC shall grant an extension of the payment due date for students who have filed and are awaiting properly approved financial aid from federal, state or other third-party sources.

The president or designee may grant short-term tuition and fee payment deferrals in cases where, due to exceptional circumstances, a student needs additional time to arrange third-party financing or otherwise satisfy a tuition and fee balance due. Deferrals must document the reason for and time duration of the deferral and must be signed by the president or designee.

Tuition Reciprocity

Reciprocity agreements between the state of Minnesota and the states of North Dakota, South Dakota, Wisconsin, Michigan, Missouri, and Nebraska exist. Students of these states and the province of Manitoba are permitted to pay tuition at a rate below the nonresident rate. Reciprocity application forms are available from high school counselors or from the campus admissions office.

Nonresident Tuition

In a pilot program, all non-resident students will receive resident rates.

General Fee For Senior Citizens

As provided in the Minnesota Laws of 1981, Chapter 194, senior citizens 62 years of age or older who are residents of Minnesota can pay an administrative fee of \$12.00 per semester credit to be enrolled in credit courses on a space-available basis after all students who pay regular fees have been accommodated. Senior citizens are responsible for course materials, textbooks, and special course fees. A senior citizen may enroll in any non-credit adult vocational education course in any state-

supported institution of higher education in Minnesota when space is available after all tuition-paying students have been accommodated.

Residency

Students who seek to qualify for in-state tuition must first meet the following threshold requirements:

- Students must have resided in Minnesota for at least one calendar year immediately prior to applying for in-state tuition.
- Residence in Minnesota must not be merely for the purpose of attending the College.

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.

- Continuous presence in Minnesota during period when not enrolled as a student.
- Sources for financial support are generated within Minnesota.
- Domicile in Minnesota of family, guardian, or other relatives or persons legally responsible for student.
- Ownership of a home in Minnesota.
- Permanent resident in Minnesota.
- 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 facts and circumstances listed above.
- Voting or registration for voting.
- The lease of living quarters.
- A statement of intention to acquire a domicile in Minnesota.
- Domicile of student's spouse in Minnesota.
- Automobile registration.
- Other public records, e.g. birth and marriage records.

College Fees

Various fees will be assessed to students depending upon enrollment status, courses attempted, and services offered by the campus attended. The following is a list of fees that may be assessed. Fees unique to a program or a class offering are detailed in the course requirement list. Fees shall be established annually by the President. A fee schedule is available from the campus business office for

the current academic year. Fees may vary based on the campus where you are enrolled.

Application Fee

All students entering the College will be assessed a one time, non-refundable application fee.

Credit by Examination Fee

When a student wishes to test out of a course through credit by examination, a credit by examination fee shall be assessed.

Late Payment Fee

Late payment fees will be assessed on the 21st day of each semester to any student who has not paid tuition, when no proof of financial aid or other funding is provided. The fee is based on the number of credits for which a student is registered.

Professional Liability Fee

Professional liability fees will be assessed to students enrolling in courses requiring clinical/internship experience. This fee is used to purchase professional liability insurance on the student's behalf.

Parking / Common Area Fee

Parking fees will be assessed on a per credit basis. The proceeds from this fee are used to upgrade and maintain the college parking facilities.

Technology Fee

Technology fees shall be assessed on a per credit basis as outlined in the technology fee plan. Proceeds from this fee shall be used to upgrade and maintain the technical infrastructure of the college, as well as assisting in the staffing of technology related positions.

Student Activity Fee

A student activity fee shall be charged to students. The activity fee is allocated to Student Life activities.

Student Association Fee

All students shall be assessed a fee which is passed on to the Minnesota State College Student Association for college membership dues. This fee shall be assessed on a per credit basis.

Uniform Deposit Fee

This fee will be assessed to all students who rent a uniform from the College. The deposit is charged to ensure all uniforms are returned to the College in the same condition they were received (less ordinary wear). The fee is refundable at the end of the year if all uniforms are returned undamaged.

Uniform Rental Fee

This fee is assessed to students in programs that require student uniform rental. The fee is used to pay for the rental of the uniform.

Student Payments

Minnesota State Colleges and Universities Policy 5.12 requires that tuition and fees will be due by the end of the 5th business day after the term begins. MSCTC shall drop all classes for students who have not paid in full, do not have a financial aid deferment, or have not established a payment plan. MSCTC shall grant an extension of the payment due date for students who have filed and are awaiting properly approved financial aid from federal, state or other third-party sources.

The president or designee may grant short-term tuition and fee payment deferrals in cases where, due to exceptional circumstances, a student needs additional time to arrange third-party financing or otherwise satisfy a tuition and fee balance due. Deferrals must document the reason for and time duration of the deferral and must be signed by the president or designee.

In the event an account becomes delinquent, a written notice will be sent to the student, making the student aware of the delinquency and indicate to them their registration will be canceled if payment is not received, or they have not made a payment arrangement with the designated personnel.

Any person who has not responded to the above notice will receive a 20-day letter. This notice will inform the individual that their registration will be canceled and they no longer will be allowed to attend classes unless financial arrangements are made. This notice will also inform them they may be turned over to the Minnesota Collection Entity.

In addition, no person with an outstanding account will be allowed to register for the

following semester's classes unless they receive a special approval from the designated personnel.

Fee Type	2007-2008 Detroit Lakes*	2007-2008 Fergus Falls*	2007-2008 Moorhead*	2007-2008 Wadena*	Comments
Tuition	\$ 127.90 per credit	\$ 127.90 per credit	\$ 127.90 per credit	\$ 127.90 per credit	
Tuition Non-resident	\$ 255.80 per credit	\$ 255.80 per credit	\$ 255.80 per credit	\$ 255.80 per credit	
Tuition Internet Delivery	\$ 180.00 per credit	\$ 180.00 per credit	\$ 180.00 per credit	\$ 180.00 per credit	Resident and Non-resident
Tuition Dental Hygiene			\$ 196.25 per credit		
Tuition Gateway			\$ 137.25 per credit		
Tuition Off Campus Nursing		\$ 137.25 per credit			
Nursing Home Asst Home Health Aide		\$175.20 per credit			
Technology Fee	\$ 7.00 per credit	\$8.00 per credit	\$ 7.00 per credit	\$ 7.00 per credit	
Late Fee	0-6 \$15.00 7+ \$ 30.00	0-6 \$15.00 7+ \$ 30.00	0-6 \$ 15.00 7+ \$ 30.00	0-6 \$ 15.00 7+ \$ 30.00	
Student Activity Fee	\$ 2.00 per credit	\$ 7.25 per credit	\$ 4.00 per credit	\$ 1.50 per credit	
Student Assoc. Fee	.30 per credit	.30 per credit	.30 per credit	.30 per credit	
Parking Fee	\$ 1.50 per credit Max. 15/semester	\$ 2.00 per credit	\$ 1.50 per credit Max. 15/semester	\$ 1.50 per credit Max. 15/semester	
Prof Liability Ins. Fee	\$9.75/year per student	\$9.75/year per student	\$9.75/year per student	\$9.75/year per student	
Application Fee	\$ 20.00 one time	\$ 20.00 one time	\$ 20.00 one time	\$ 20.00 one time	
Test Out Fee	\$ 50.00 per credit	\$ 50.00 per credit	\$ 50.00 per credit	\$ 50.00 per credit	
Senior Citizen Tuition	\$ 12.00 per credit	\$ 12.00 per credit	\$ 12.00 per credit	\$ 12.00 per credit	In lieu of tuition.
Transcript Fee	None	None	None	None	
Chef Training Fee			\$150.00 per semester		Chef Training students only.
C.N.A./HHA Testing Fee	\$140.00 per student	\$140.00 per student	\$140.00 per student	\$140.00 per student	Nursing assistant who wish to take certification test pay this fee
Nursing Application Deposit	\$100.00 per student	\$100.00 per student	\$100.00 per student	\$100.00 per student	Nursing students only.
Pre-Test Assessment Fee	\$50.00 per student	\$50.00 per student	\$50.00 per student	\$50.00 per student	Nursing students only.
Post-Test Assessment Fee	\$50.00 per student	\$50.00 per student	\$50.00 per student	\$50.00 per student	Nursing students only.
NCLEX Readiness Test	\$50.00 per student	\$50.00 per student	\$50.00 per student	\$50.00 per student	Nursing students only.
Clinical Makeup Fee	\$25.00 per hour	\$25.00 per hour	\$25.00 per hour	\$25.00 per hour	Nursing students only.
Replacement of Student Identification Card	\$5.00 per ID card	\$5.00 per ID card	\$5.00 per ID card	\$5.00 per ID card	
Potter Clay Fee		\$42.50 per semester			
Golf Green Fee		\$30.00 per semester			
Private Lessons (Vocal, Piano, Instrument)		\$90.75 per credit			
Course Assisted CD (certain Math & English)		\$50 per course			
Uniform Rent-Auto			\$108.00 per semester		
Uniform Rent-Diesel			\$108.00 per semester		
Uniform Rent - Chef			\$130.00 per semester		
Uniform Deposit-Auto			\$100.00 per year		
Uniform Deposit-Diesel			\$100.00 per year		
Uniform Deposit-Chef			\$250.00 per year		

*All charges subject to change after review by college administration, student senate, or MnSCU Board of Trustees.

Deferment/Payment Plan

In accordance with MnSCU policy 5.8, Minnesota State Community & Technical College has the ability to grant deferments and payment plans to students demonstrating the need for such arrangements.

A deferment is defined as an agreement between the College and the student to delay payment until financial aid, which is sufficient to cover all student charges, arrives at the College. Financial aid, for this purpose is described as grants, loans, scholarships or third party authorizations. Deferments may be granted from authorized representatives of the financial aid or business offices.

Students are encouraged to contact business offices regarding payment plan options.

A payment plan is an agreement between the college and the student based on a promise to pay in the future by the student. Payment plans shall be approved by the business office only. Business office officials will base the payment plan upon a financial situation that makes the future payment highly certain. A written contract is required to be on file for all payment plans. Non-compliance with the established plan will result in the student's account becoming delinquent and college accounts receivable procedures being implemented. All payment plans must be paid in full prior to registering for any future terms. Delinquent accounts may also lead to other college sanctions including non-release of college transcripts.

Return Of Title IV Funds For Financial Aid Recipients

Students who receive Federal Title IV financial aid (Pell Grant, SEOG Grant, Direct Loan, Stafford Loan, or Perkins Loan) and who completely withdraw prior to completion of 60% of the term shall be required to repay the unearned portion of that aid. Federal financial aid is earned on a pro rata basis up to the 60% point of the term (e.g. after 40% of the term has elapsed, 40% of the federal aid has been earned while 60% is unearned and subject to repayment). After the 60% point in the term, the student will be considered to have earned 100% percent of their federal aid. Students should consult with financial aid office personnel before completely withdrawing from college to accurately determine their repayment liability to federal financial aid sources.

Financial Aid Satisfactory Academic Progress

All students enrolled in a program of study must maintain satisfactory academic progress in order to maintain eligibility for financial aid.

Requirements

Qualitative Measure: All students are required to maintain an acceptable (financial aid) Grade Point Average (GPA). The minimum standard is progressive based on cumulative registered credits and is detailed below.

Cumulative Registered Credits	Minimum Required (financial aid) GPA
0-5	-----
6-23	1.75
24+	2.00

Quantitative Measure

All students are required to earn an acceptable percentage of cumulative registered credits. The minimum acceptable percentage earned shall be 67% of cumulative registered credits.

Quantitative Measure of Progress

All students are expected to complete their degree/certificate within 150% of the published length of the program. As soon as it is clear that a student will not graduate within this period, she/he immediately becomes ineligible for aid. Credits that a student has earned at MSCTC in the successful completion of a degree, diploma, or certificate program shall not be counted in the quantitative measure of progress for a subsequent program(s) in which the student enrolls. However, any credits that apply to the new program **must** be counted. Students who change programs (majors) without successfully completing a program, and who would otherwise be ineligible to receive financial aid due to the 150% rule, have the right of appeal to have their financial aid reinstated.

Definitions/Conditions

Registered Credits - credits for which a student is officially enrolled at the end of the registration drop period each term.

Cumulative Credits - total number of credits evaluated (registered, earned, etc.) for all periods of enrollment at the college, including summer terms or terms for which the students did not receive financial aid.

Earned Credits - successfully completed credits counted towards the required percentage of completion; includes only A, B, C, D, S and P (Pass); does not include I (incomplete), W (withdraw), V (audit), F, and NC (no credit).

Grade Point Average - calculated using a grade point value for grades of A, B, C, D, and F. (Although a P will count as a credit earned, it carries no grade point value.)

Repeat Credits - repeats may be allowed in order to improve a grade. The highest grade earned will be the grade that is calculated in the GPA.

Developmental Credits - remedial coursework (below 1000 level) may be included with registered credits limited to 30 semester credit hours. These credits are included in GPA and completion percentage calculations but are not included in maximum time frame calculations.

Transfer Credits - credits earned at another college shall not be included when calculating GPA or completion percentage, but all credits accepted by the college toward general education, program, or degree requirements shall apply toward the maximum time frame calculation.

Consortium/Joint Program Credits - credits accepted by the college for purposes of processing financial aid are included with registered credits.

Academic Forgiveness – credits for which a student has receive forgiveness in the calculation of grade point average must still be included in calculating all areas of academic progress for determining financial aid eligibility.

Implementation

When monitoring satisfactory academic progress and implementing probation and/or suspension, MSCTC will apply the following standard for students enrolled in degree or certificate programs:

- All students with registered credits during a term and whose cumulative registered credits exceed 5 credits will be evaluated at the end of the term.

- Any student found not meeting minimum satisfactory academic progress requirements for one term will be subject to probation during their next term of enrollment.

- A student on probation found not meeting minimum satisfactory academic progress requirements at the end of their next enrolled term will be subject to suspension of financial aid eligibility commencing immediately. The student shall remain ineligible for financial aid until such time that the student meets or exceeds satisfactory academic progress standards or successfully petitions for reinstatement.

Suspension of Students for Extraordinary Circumstances

MSCTC may immediately suspend a student in the event of extraordinary circumstances, such as a student who was previously suspended and whose academic performance falls below acceptable levels during a subsequent term, a student who registers for but does not earn any credits for two consecutive terms, a student who does not meet the minimum GPA standards for two consecutive terms regardless of cumulative GPA, or a student who demonstrates an attendance pattern that abuses the receipt of financial aid, etc.

Petition for reinstatement

A student who is unable to achieve satisfactory academic progress and is suspended from financial aid eligibility has the right to petition for reinstatement based on unusual or extenuating circumstances. The Director of Financial Aid (or a person or persons designated by the Director of Financial Aid) shall hear petitions for reinstatement.

Petitions for reinstatement of financial aid eligibility must:

- Be submitted in writing to the Director of Financial Aid (or persons designated by the Director of Financial Aid). Students may choose to support their written appeal by appearing in person to the Director of Financial Aid, or person(s) designated by the Director of Financial Aid.
- Include an explanation of the circumstances that affected academic progress.
- Include supporting documentation beyond the written explanation, if requested.

All petitions for reinstatement will be considered and responded to in writing as early as possible, but no later than 10 days into the academic term.

After a period of non attendance subsequent to a suspension, a student may petition for reinstatement of financial aid eligibility for a next term of enrollment providing they do so at least 30 days prior to the start of the term.

A student who has a complaint regarding the appeal process or who feels they were denied due process, may submit a request for review to the campus provost.

A student who has been suspended from MSCTC at a particular campus shall be suspended from all MSCTC campuses. A student wishing to petition for reinstatement must direct their appeal to the campus offering the program for which they wish to enroll.

Reinstatement

Any student who has been suspended remains ineligible for financial aid until such time that the student meets or exceeds satisfactory academic progress standards or successfully petitions for reinstatement.

During a probationary term following a suspension, the student must pass 67% of the credits attempted with a 2.00 or higher term GPA to remain enrolled. If after achieving a 2.00 GPA during a probationary term, the student's GPA is still below the requirement, the student will continue on probation for the next semester with the same rules applied.

Student Information

Bookstore

A college bookstore is located on each MSCTC campus and online. The bookstore is the place to purchase all the items needed to begin your classes. This includes books, tools, supplies, and other school-related items. The bookstore is generally open Monday through Friday during the academic year. Special hours are posted for the first week of each semester, holidays, and as needed. The bookstore is open to students, faculty, and the general public. Sales may be either cash, check, or credit card.

Campus Dining

Each College campus offers dining services to provide students and guests with a variety of

snacks, light meals and entrees. Food items are served Monday through Friday during the regular academic year. The College does not require students to purchase a meal plan. Students may ask campus dining about options to pre-pay. Campus dining services may also cater events upon request. Vending machines are also available for the convenience of students and guests.

Child Care

Childcare information and/or a listing of licensed day-care providers may be obtained from the Student Services Office at the appropriate campus. Limited childcare funding is available to students enrolled for six or more credits. See Financial Aid section for more information.

Consumer Information

The College, in compliance with Title IV of the Educational Amendments of 1976 to the Higher Education Act and subsequent Federal Legislation, will provide and disseminate consumer information to all prospective and enrolled students. This information shall include, but not be limited to the following: admission requirements, financial aid programs, costs, job placement, probation/suspension policy and refund policy.

Counseling And Guidance

College counselors at MSCTC assist in the total development of each student and his/her educational, social, personal and life-career planning goals. They strive to provide a warm and accepting environment in a confidential setting. Counselors assist with educational issues such as class selection, choosing a major, career selection, and transferring to a four-year institution. Counselors also provide students with individual counseling and aid in making referrals when necessary.

Campus Counselor(s)

Detroit Lakes Campus:
900 Highway 34 East
Detroit Lakes, MN 56501-2698
218-846-3714

Fergus Falls Campus
1414 College Way
Fergus Falls, MN 56537
218-736-1539 or 218-736-1536

Moorhead Campus:
1900 28th Avenue South
Moorhead, MN 56560-4899

218-299-6516
218-299-6609

Wadena Campus:
405 Colfax Ave SW
P.O. Box 566
Wadena, MN 56482-0566
218-631-7874

Disabilities

MSCTC complies fully with the provisions for the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, which prohibits discrimination in employment and public educational services on the basis of an individual's disability. An individual with a disability is one who has or is regarded as having a physical or mental impairment, which substantially limits one or more of that individual's major life activities.

All MSCTC campuses are accessible by ramps or doorways. Designated handicapped parking spaces are located near main entrances. Vehicles bearing a State Handicapped License are the only vehicles allowed to park in these spaces. Temporarily disabled students (e.g. broken leg) may obtain handicapped permits for a limited time from the Receptionist. Students need a letter of verification from a doctor for all temporary handicapping conditions (this letter must state the approximate length of the handicapping condition).

Assistive technology devices such as microcomputers, laser printers, screen enlargers, and computerized dictionaries and encyclopedias are available. Tape-recorded books, adapted testing, and tutoring are provided. Information on note taking, study skills, and time management plus developmental courses in math and composition are available. The College is equipped to serve students with various physical challenges such as cerebral palsy, muscular dystrophy, spinal cord injuries, or closed head injuries.

In order to assure equal access to the full range of collegiate experiences in the most integrated setting possible, the College provides a wide range of supplemental services. Students who provide the college with a recent assessment documenting a disability may receive the following special services:

- support, counseling, and information about assessment and referral services;

- academic assistance services that may include early registration services, early syllabus availability, course selection and program advising, course work and testing assistance and modification, and tutoring; and
- advocacy services that may include assistance from a Disability Services Coordinator for students needing services, assistance in working individually with faculty and administrators, intervention procedures, and grievance procedures.

Disability Services Coordinators on each campus:

Detroit Lakes Campus:
900 Highway 34 East
Detroit Lakes, MN 56501-2698
218-846-3767

Fergus Falls Campus
1414 College Way
Fergus Falls, MN 56537
218-736-1595 (voice),
or 218-736-1537 (TTY)

Moorhead Campus:
1900 28th Avenue South
Moorhead, MN 56560-4899
218-299-6514

Wadena Campus:
405 Colfax Ave SW
P.O. Box 566
Wadena, MN 56482-0566
218-631-7870

English Language Learners

The College recognizes English Language Learners students as individuals who have sufficient difficulty speaking, reading, writing or understanding the English language. The College has developed a support services plan for enrolled students. A student may be eligible for these support services by meeting one or more of the following conditions:

- The student is not a native of the United States or has a native language other than English and comes from an environment where a language other than English is dominant
- The student is a Native American or Alaska native and comes from an environment

where a language other than English has had a significant impact on the student's level of English language proficiency

- The student is migratory and has a native language other than English and comes from an environment where a language other than English is dominant.

Health Services/Insurance

Students are encouraged to carry some type of health coverage while attending school. Group health insurance is available to all MSCTC students. (NOTE: Students should check coverage within their family insurance program.) Information and applications for student health and dental insurance may be obtained from Student Services. Health and accident insurance is the responsibility of the student. Student injuries that occur during class time are the responsibility of the student not the college.

Note: International students are required to purchase a MnSCU International Student Medical Insurance policy.

The College does not assume responsibility for any illness or accident to a student. The student is responsible for making financial arrangements for costs that are incurred at any health care facility.

All accidents shall be reported. If there is an accident or illness in a classroom or laboratory, an ambulance may be called to transport the student to a local emergency room. All campus laboratories are equipped with first aid kits, eyewash, and showers for first aid treatment of minor injuries.

Laptops

To meet the laptop requirement of a program, the student in the program must possess adequate computing resources. The requirement can be met with a student-owned laptop or a laptop procured through a lease with a vendor; however, the minimum hardware specifications and general software requirements must be met to accommodate communication, research, general and specific program computing activities.

Annually, the College Information Systems Department identifies a minimum hardware specification and required general software to

meet all program majors. These specifications are available from each Campus Help Desk. In addition, the specifications are posted to the College website. Due to the changing nature of curriculum, software and course sequencing, the College will not endorse an alternate specification. Students interested in using an alternate specification are strongly advised to consider the numerous changing variables that will affect their computing needs throughout the program of study prior to leasing or purchasing an alternate specification.

All students are required to:

- at request, produce proof of licensure for all software installed on the computer, and
- register, upon request, with a Help Desk.

All students using their own laptop computers or campus computer labs are subject to the rights and responsibilities of MSCTC Policy 5200-1-01 Acceptable Use of Computers and Information Technology Resources.

Student Clubs and Activities

Minnesota State Community and Technical College's philosophy is that student activities and organizations promote the complete development of the individual. Activities and organizations also serve a useful purpose in motivating students to enroll and continue in school. Through the number and variety of activities and organizations, all students have the opportunity to participate in extracurricular programs. The student life budget supports the expenses of approved student body activities.

Establishing a student organization requires a two part process: approval by the student senate and approval by the student services dean. All student club membership and activities will be governed by the Student Code of Conduct.

Student Clubs

Anime & Manga Club: - Fergus Falls
Special interest group surrounding Japanese cartoon club.

Athletics – Fergus Falls

The Fergus Falls campus has a strong tradition of exciting, successful athletic teams. The college is a member of the Minnesota Community College Conference (MCCC) and Region XIII of the National Junior College Athletic Association (NJCAA). Men's athletic teams represent the college in football,

basketball, golf, and baseball. Women's teams compete in softball, volleyball, golf, and basketball. Athletic competition includes teams from Minnesota, South Dakota, North Dakota, Michigan and Wisconsin.

Business Professionals of America (BPA) – Moorhead

Business Professionals of America is a national career and technical student organization that serves students enrolled in business programs. The mission of BPA is to contribute to the preparation of a world-class workforce through the advancement of leadership, citizenship, academic and technological skills. Members are involved in leadership, community service projects at the local level, and competitions at the state and national levels.

Cultural Activities Can Touch US (CACTUS) – Fergus Falls/Moorhead

CACTUS is a student organization designed primarily to celebrate diversity on campus. All students are welcome to participate.

Campus Crusade for Christ – Fergus Falls

Campus Crusade for Christ provides regular opportunities to study and discuss the Bible, worship and pray, all in a group setting, which also provides opportunities for fellowship, encouragement and spiritual development among members.

Carpentry Club – Wadena

Circle K - Fergus Falls

Circle K is an international collegiate service organization that promotes fellowship, leadership, and volunteer service. MSCTC's Circle K engages students in volunteer activities throughout our community while providing leadership and management training to our members. Sponsored by the two local Kiwanis chapters, Noon Kiwanis and Otter Risers, Circle K members also have the opportunity to work side by side with community leaders and mentors in the Kiwanis family.

College Ambassadors – Fergus Falls/Moorhead

College Ambassadors is an organization whose purpose is to represent and promote MSCTC. Students have the opportunity to develop and strengthen their leadership, communication, public relations and organizational skills.

Criminal Justice Association – Fergus Falls/Moorhead

The Criminal Justice Association is primarily for those students who are interested in the criminal justice program.

Distributive Education Clubs of America (DEX) - Moorhead

The Distributive Education Clubs of America, commonly known as "DEX", is composed of students in the Sales and Marketing programs. This organization fulfills a professional, social and service association to the students. DECA is an excellent educational supplement to a student preparing for a career in the sales and marketing occupations.

International Association of Administrative Professionals (IAAP) – Moorhead

The IAAP Student Chapter Program serves as a venue to introduce students to professional organizations as Administrative Assistants. IAAP's purpose is to provide information, education, and training and to set standards of excellence recognized by the business community on a global perspective. The student must be enrolled in at least one course in the business curriculum to join a Student Chapter or to join IAAP as a student member.

Intramural Athletics

Each semester the college offers sports and activities such as baseball, football, basketball, bowling, softball, table tennis, darts, racquetball, volleyball, tennis, plus others as interest dictates.

Music Organizations - Fergus Falls

The Concert Choir, Voice Ensemble, Area Chorale, and the Jazz Ensemble provide excellent opportunities for participation in vocal and instrumental music with multiple performances. 1 semester credit is given to students enrolled in these group activities and in private vocal or instrumental lessons. Approximately twenty scholarships are awarded to participants in music groups each year.

Mu Alpha Theta – Fergus Falls

International mathematical honor society. Students who have completed at least one mathematics course at or above the College Algebra-Precalculus level are eligible.

Organization of Creative Writers (OCW) – Moorhead

Our purpose is to gather and share ideas and to promote creativity in a respectful and supportive manner. This organization is open to all MSCTC students.

Phi Theta Kappa - Fergus Falls

Phi Theta Kappa is the national honor society for 2 year colleges. The Fergus Falls chapter, Omicron (Tulice), was chartered in 1966.

Practical Nursing Organization & Associate Degree Nursing Student Organization - Fergus Falls

Students currently enrolled in the practical nursing program are members. Each organization promotes student activities, both professional and social for it's members.

Skills USA-VICA – Detroit Lakes, Moorhead, Wadena.

Vocational Industrial Clubs of America is the official organization of vocational education. It is open to all students enrolled in education throughout the world and is intended to develop an appreciation for the world of work. Competition in VICA is on both state and national levels.

Student American Dental Hygienists' Association (SADHA) – Moorhead

SADHA is composed of students of the Dental Hygiene program. This organization promotes the art and science of dental hygiene, represents the common interests of the members of the dental hygiene profession, and contributes toward the improvement of the oral health of the public.

Student Human Resource Organization (SHRO)- Moorhead

SHRO is a co-curricular organization designed to acquaint students considering a future in business, with the field of human resource management and/or labor relations. Students increase their knowledge of new developments in the human resource field and develop leadership and content competencies through interaction with human resource professionals and participation in college and community events. SHRO is a chartered student organization with the Society for Human Resource Management. Students are able to join the Society for Human Resource Management as student members, allowing further development of their professional skills.

Students in Free Enterprise (SIFE)-Fergus Falls

Students in Free Enterprise is an organization dedicated to the preservation of America's free enterprise system.

The Spartan

The Spartan is the official student newspaper of the college and is published three times per semester by and for students.

Student Senate

The Student Senate is the students' voice with the administration, faculty, and the Minnesota State College and Universities system, promoting the needs and concerns of the students and the college.

Student Communication

All students have access to a college email address. The College uses this email address to send information about financial aid, registration, student services, and other important topics. Students should check their college email on a daily basis. If you do not know your email address or have any questions about how to activate your email account, stop by the Computer Help Desk. Students are able to check their college email from off-campus.

Student Housing

Each campus may maintain information about community and on-campus housing options. However, the individual student does the actual inquiry and selection of proper housing. The individual campus communities offer many types of housing which are available to college students. Please contact the appropriate campus for more information.

On-campus Housing is available on the Fergus Falls campus. Students wishing to live on campus can choose between two different apartment style complexes – the College Manor or Williams Hillside Village. Both complexes are furnished and house four students to each apartment. The college recommends on-campus living as a positive college experience. These facilities are "No-Alcohol" and the College shares in the management of both facilities.

Student Identification Cards

The student identification card is the required form of identification for MSCTC students. The College issues a photo identification card to students attending on-campus courses. The College issues student identification cards after students complete their initial registration. Students must show their identification cards for

admission to various College events, to vote in student elections, to check out library materials, to conduct transactions in the Business Office, and for other purposes as required by the College. If an identification card is lost or stolen, students may obtain a replacement identification card for \$5.00.

Student Parking

Parking is provided to students in designated lots. There is no charge for parking during summer term. We will charge all students a per credit fee for parking and will waive the charge upon receiving a written request by the student.

All persons operating motor vehicles on College property shall do so at their own risk. No responsibility or liability shall be assumed by the College for loss of property, damage to the vehicle while parked, damage which may be incurred through the process of impounding the vehicle, or for any other damage or loss of any kind sustained while on the College property.

Student Right To Know

It is the policy of the College to annually prepare and make available to all enrolled and prospective students, statistics on completion or graduation rates, transfer-out rates, and employment, pursuant to the Student Rights To Know Act of 1990. This information shall be made available through appropriate publications, mailings and the College web page www.minnesota.edu.

Student Services Appeals

Any student who feels there are unusual circumstances which warrant departure from Student Services policies or procedures may file an appeal to the Campus Dean or designee. Students may choose to further appeal to the Campus Provost or designee.

Theater

The College theater department located on the Fergus Falls campus produces two plays a year ranging from period of comedy to contemporary drama. The music and drama departments cooperatively produce a musical once a season.

Transcript Requests

Students may visit the Student Services Office or go online at www.minnesota.edu to request a transcript, or they may mail or fax a transcript

request to the appropriate campus. Distance Education students may use the appropriate on-line form that is located on the Distance Education web site. To protect student privacy, students must submit a written, signed request. There is no charge for this service.

Travel Abroad

The Fergus Falls campus offers students a study/travel abroad program wherein students register for selected spring semester course that are tied to a trip overseas at the end of spring semester. The credits taken for both the spring semester course work and the field experience apply to the transfer portion of the Associate in Arts degree. The courses and the cost of the program are announced during the fall semester.

Visual Arts

The Fergus Falls campus has long been committed to the visual arts through course offerings, exhibits in the Waage Fine Arts Gallery, and an extensive permanent collection displayed prominently throughout the campus. The collection began when, as a faculty member, Charles Beck often encouraged students to leave a work of art for the college. Throughout the years, through budgeted funds and gifts to the Fergus Area College Foundation, the College also has purchased the work of regional artists for the permanent collection.

Campus Environment

Campus Security

All crimes occurring on campus should be reported immediately to both campus administration and local law enforcement to ensure that appropriate action is taken. Crimes can be averted and suspects apprehended more quickly if suspicious activity is reported promptly. If someone's actions or the situation is disturbing, or out of the ordinary report it to the Campus Administration. If you have an emergency call 911, your local law enforcement. The administration and police will assess the situation and take any necessary and appropriate action. Forms for "Reporting a Criminal Act" and a "Suspect Description Sheet" are available from the college's front desk receptionist and in the Student Services office. Immediate documentation of the incident provides valuable information to law

enforcement should you be either a victim of or witness to a crime.

College personnel have no enforcement authority over instance of criminal actions, thus college personnel are not expected to attempt to detain a person suspected of such actions. The college cooperates closely with local and state law enforcement.

Crime Bulletins and Statistics

MSCTC shall on September 1 of each year, publish and distribute an Annual Security Procedures and Statistical Report as required by the Campus Security Act of 1990. A copy of the annual security procedures and statistical report is available at the Student Services Office on each campus and on the College web site: www.minnesota.edu.

The security report contains information regarding any documented activity on campus or off campus if such activity takes place during an event sponsored by an organization recognized by the college. This report is published and distributed yearly. It is printed as a brochure and is also posted on the College's web page at www.minnesota.edu.

The Campus Provost, working with local law enforcement, promptly publicizes any incident of criminal activity that poses a potential threat to the campus. See the publication "Annual Security Report" for statistics concerning the occurrence of crimes reported to campus officials and local law enforcement.

Cell Phone Use

The College strives to provide high quality educational programs and services to students and community members. No member of the College community shall use a cell phone, pager or other technological communication device that disrupts the learning environment or the ability to provide high quality services.

During classes, meetings or other activities or events, instructors or employees responsible for those activities may require that all cell phones and pagers be turned off or placed in non-ring/vibrate mode.

Drug-Free Environment

Minnesota State Community and Technical College is committed to providing an environment free of alcohol and illegal drugs for its students, employees, and visitors. Therefore,

the College prohibits the unlawful possession, use, manufacture, or distribution of controlled substances, including alcohol and illegal drugs, by students and employees on its property, in college or state-owned vehicle, or as part of any of its activities.

Except as permitted by MnSCU Board Policy 5.18, the possession, use, sale or distribution of alcoholic beverages and 3.2% malt liquor is prohibited at college-sponsored events on or off-campus.

Listed below are MSCTC standards of conduct, disciplinary sanctions, resources for assistance, health risks, and description of legal sanctions, as required by Drug-Free Schools and Campuses Regulations:

Standards of Conduct

MSCTC standards of conduct prohibit the unlawful possession, use, manufacture, or distribution of illegal drugs and alcohol by students and employees on all on-campus activities and off-campus activities that are considered to be school-sponsored. Foreign study programs, field trips, etc., also fall under these requirements.

Disciplinary Sanctions

MSCTC shall impose appropriate disciplinary sanctions on students and employees who are found to have violated this policy, up to and including expulsion or termination. Individuals who violate this policy may additionally be subject to legal sanctions, including criminal prosecution, under federal, state, or local law. Summary information on legal penalties for violating controlled substance laws is found below.

Students working as employees are covered while on duty under the employee sanctions; otherwise, they are covered under the student sanctions

Resources for Assistance

Students and/or employees seeking assistance with an alcohol or drug problem, may contact the following resources for assistance:

State Employee Assistance Program
Counseling Services..... 866-477-1586
Web Site www.doer.state.mn.us/eap/eap.htm

Detroit Lakes

Glenmore Recovery Center. 218-846-1605
Alcoholics Anonymous 218-844-9970

Fergus Falls

Lakeland Mental Health Center 218-736-6987
Alcoholics Anonymous 218-739-9887

Moorhead

Clay County Social Services 218-299-5200
Narcotics Anonymous..... 701-232-9930
Alcoholics Anonymous 701-235-7335

Wadena

Neighborhood Counseling Center 218-631-1714
Alcoholics Anonymous 218-631-3823

Health Risks

Alcohol. Alcohol consumption causes a number of changes in behavior and physiology. Even low doses significantly impair judgment, coordination, and abstract mental functioning. Statistics show that alcohol use is involved in a majority of violent behaviors on college campuses, including acquaintance rape, vandalism, fights, and incidents of drinking and driving. Continued abuse may lead to dependency, which often causes permanent damage to vital organs and deterioration of a healthy lifestyle.

Cannabis (Marijuana, Hashish). The use of marijuana may impair or reduce short-term memory and comprehension, alter sense of time, and reduce coordination and energy level. Users often have a lowered immune system and an increased risk of lung cancer. The active ingredient in marijuana, THC, is stored in the fatty tissues of the brain and reproductive system for a minimum of 28 to 30 days.

Hallucinogens. Lysergic acid (LSC), mescaline and psilocybin cause illusions and hallucinations. The user may experience panic, confusion, suspicion, anxiety, and loss of control. Delayed effects, or flashbacks, can occur even when use has ceased. Phencyclidine (PCP) affect the section of the brain that controls the intellect and keeps instincts in check. Because the drug blocks pain receptors, violent PCP episodes may result in self-inflicted injuries.

Cocaine/Crack. Cocaine users often have a stuffy, runny nose and may have perforated nasal septum. The immediate effects of cocaine

use include dilated pupils and elevated blood pressure, heart rate, respiratory rate, and body temperature, followed by depression. Crack, or freebase rock cocaine, is extremely addictive and can cause delirium, hallucinations, blurred vision, severe chest pain, muscle spasms, convulsions, and even death.

Methamphetamines. Methamphetamines are addictive and users can develop a tolerance quickly, so will need more and more to get the same effect. There are many health risks from taking this type of drug. While on the drug the user may become tense and anxious and it can leave them feeling depressed, paranoid and tired for days after. Methamphetamines can also cause violent mood swings and users can become very aggressive. Long-term use can cause paranoia, hallucinations, mental illness, respiratory problems and will put a strain on the heart, due to increased blood pressure.

Amphetamines. Amphetamines can cause a rapid or irregular heartbeat, tremors, loss of coordination, collapse, and death. Heavy users are prone to irrational acts.

Heroin. Heroin is an opiate drug that causes the body to have diminished pain reactions. The use of heroin can result in coma or death due to a reduction in heart rate.

State and Federal Legal Sanctions regarding Controlled Substances:**Minnesota Alcohol Violation Sanctions**

- It is illegal to drive, operate, or be in physical control of a motor vehicle while under the influence of alcohol and/or a controlled or hazardous substance, or with a "blood-alcohol concentration" of 0.10 or more. Motor vehicles include cars, boats, snow- mobiles, ATVs, planes, etc. "Operate" or "in physical control" includes starting the motor, steering, or being in position to control a vehicle, including simply sitting or sleeping in a parked vehicle.

PENALTY:

First offense (including juvenile convictions): misdemeanor- fine up to \$700, jail up to 90 days, drivers license revocation of at least 30 days.

Second offense within 5 years or 2 or more convictions within 10 years: gross misdemeanor- fine up to \$3,000, jail up to one year, drivers license revocation of at

least 30-90 days and possible chemical dependency treatment.

Third or more offenses: longer periods of revocation.

- Minors in possession or consumption: Persons *under 21 years of age* consuming or possessing alcoholic beverages with intent to consume, unless the person is in a parent or guardian's home and drinks with their permission. Possession anywhere other than a parent or guardian's home is prima facie evidence of intent to consume.

PENALTY: Misdemeanor

- Selling, bartering furnishing or giving alcoholic beverages to a person, under 21 years old (except parents in their home).

PENALTY: Gross misdemeanor. Possible civil liability for damages caused by the person under 21 while under the influence.

- Anyone under 21 years of age who purchases or attempts to purchase an alcoholic beverage, or claiming to be 21 or older for the purpose of purchasing alcoholic beverages.

PENALTY: Misdemeanor. Drivers license suspension of 90 days if a driver's license, permit or MN identification is used in making or attempting the purchase.

- Including a person under 21 years to purchase or procure, alcoholic beverages or lending to or permitting use of identification by a person under the age of 21 for the purpose of purchasing or attempting to purchase alcoholic beverages.

PENALTY: Gross misdemeanor. Driver's license suspension of 90 days if a driver's license is lent.

NOTE: Penalties can change with each legislative session. Municipalities and Counties may also have ordinances that regulate gatherings and have specific penalties for violation.

Minnesota Drug Sanctions

Schedule Drugs (I-V)

- I. Heroin, LSD, mescaline and peyote, amphetamine variants marijuana, other hallucinogens.

- II. Opium, morphine, codeine, methadone, cocaine, barbiturates.
- III. Anabolic steroids, opium, codeine, methadone, cocaine, barbiturates.
- IV. Barbiturates, benzodiazepines, choral hydrate, other narcotics, stimulants and depressants.
- V. Opium, codeine, other narcotics and depressants.

- *First Degree*

Sale: 10+ grams of cocaine, 50+ grams of other narcotic drug, 200+ doses hallucinogen, 50 kilos marijuana, or 25+ kilos marijuana in a school zone, park zone, or public housing zone.

Possession: 25+ grams cocaine, 500+ grams of other narcotic drug, 500+ doses hallucinogen, 100+ kilos marijuana.

PENALTY: 0 to 40 years, 4-year mandatory minimum if prior drug felony; up to \$1 million fine, 0 to 40 years, 2nd offense.

- *Second Degree*

Sale: 3+ grams of cocaine, 10+ grams of other narcotic drug, 50+ doses hallucinogen, 25 kilos marijuana, or sale of a Seclude I or II narcotic drug of 5+ doses hallucinogen or methamphetamine either to a person under 18 or in a school zone, park zone, or public housing zone.

Possession: 6+ grams cocaine, 50+ grams of other narcotic drug, 100+ doses hallucinogen, 50+ kilos marijuana.

PENALTY: 0 to 40 years, 3 year mandatory minimum if prior drug felony; up to \$500,000 fine.

- *Third Degree*

Sale: Narcotic drug: 10+ doses hallucinogen, 5+ kilos marijuana, or sale of a Schedule I, II, or III (except a Schedule I or II narcotic drug or marijuana) to a person under 18 or employment of person under 18 to sell the same.

Possession: 3+ grams cocaine, 10+ grams of other narcotic drug, 10+ kilos marijuana, and any amount of a Schedule I or II narcotic drug or LSD or methamphetamine or 5+ kilos marijuana in a school zone, park zone, or public housing zone.

PENALTY: 0 to 30 years, 2-year mandatory minimum if prior drug felony; up to \$250,000 fine. 0 to 30 years, 2nd or subsequent offense.

- **Fourth Degree**
Sale: Any Schedule I, II, Or III drug (except marijuana), or sale of marijuana in a school zone, park zone, or public housing zone or any Schedule IV or V drug to a person under 18 or conspiracy for the same. Possession: 10 doses hallucinogen, any amount of a Schedule I, II, or III drug (except marijuana) with intent to sell it. PENALTY: 0 to 30 years, 1 year mandatory minimum if prior drug felony; up to \$100,000 fine.
- **Fifth Degree**
Sale: Marijuana, or an Schedule IV drug. Possession: All Schedule I, II, III, or IV drugs except 42.5 grams or less of marijuana. Any prescription drugs obtained through false pretenses or forgery. PENALTY: 0 to 5 years, 6 months mandatory minimum if prior drug felony; up to \$10,000 fine.

Small Amounts of Marijuana

- For the Possession of up to 1.4 grams of marijuana the person is guilty of a petty misdemeanor including a fine of \$200 and required attendance at an approved drug education program.
- Second conviction of possession of a small amount of marijuana results in a misdemeanor and possible drug treatment. Possession of 1.4 grams or less of marijuana in an automobile is a misdemeanor.

Federal Controlled Substance Sanctions **Schedule I Drugs (Penalty for possession):**

- *First Offense:* 0 years to life, 10 year mandatory minimum; if death or serious injury, 20 year minimum; up to \$4 million fine individual, \$10 million other than individual.
- *Second Offense:* 0 years to life, 20 year mandatory minimum; if death or serious injury, not less than life; up to \$8 million fine individual, \$20 million other than individual.

Schedule II Drugs (Penalty for possession):

- *First Offense:* 5 years to 40 years, 5 year mandatory minimum; if death or serious injury, 20 year minimum; up to \$2 million fine individual, \$5 million other than individual.
- *Second Offense:* 0 years to life, 10 year mandatory minimum; if death or serious

injury, not less than life; up to \$4 million fine individual, \$10 million other than individual.

Schedule I or II Controlled Drugs (Penalty for possession):

- *First Offense:* 0 to 20 years; if death or serious injury, 20 year minimum, not more than life; up to \$1 million fine individual, \$5 million other than individual.
- *Second Offense:* 0 to 30 years; if death or serious injury, not less than life; up to \$2 million fine individual, \$10 million other than individual.

Schedule III Drugs (Penalty for possession):

- *First Offense:* 0 to 5 years, up to \$250,000 fine individual, \$1 million other than individual.
- *Second Offense:* 0 to 10 years; up to \$500,000 fine individual, \$2 million other than individual.

Schedule IV Drugs (Penalty for possession):

- *First Offense:* 0 to 3 years; up to \$250,000 fine individual, \$1 million other than individual.
- *Second Offense:* 0 to 6 years; up to \$500,000 fine individual, \$2 million other than individual.

Schedule V drugs (Penalty for possession):

- *First Offense:* 0 to 1 year; up to \$100,000 fine individual, \$250,000 other than individual.
- *Second Offense:* 0 to 2 years; up to \$200,000 fine individual, \$500,000 other than individual.

Miscellaneous Penalties:

- *21 U.S.C. 853(a)(2) and 881 (a)(7):* Forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance if that offense is punishable by more than one year imprisonment.
- *21 U.S.C. 881 (a)(4):* Forfeiture of vehicles, boats, aircraft, or any other conveyance used to transport or conceal a controlled substance.

- 21 U.S.C. 844 (a): Civil fine of up to \$10,000 (pending adoption of final regulations).
- 21 U.S.C. 853 (a): Denial of Federal benefits, such as student loans, grants, contracts and professional and commercial licenses up to one year for first offense, up to five years for second and subsequent offenses.
- 18 U.S.C. 922 (g): Ineligible to receive or purchase a firearm.

Facilities Use

Use of college facilities, including buildings and grounds, by Student Organizations, non-college groups, organizations or individuals, shall be determined on an individual basis. Individuals groups, or organizations interested in using such facilities should contact the Campus Provost office. A cost may be associated with the use of college facilities. The College shall not be responsible or assume any liability of the using groups, organizations or individuals related to the utilization of the college facilities.

Health And Safety Policy

Minnesota State Community and Technical College is committed to providing a safe and healthy work and educational environment for its employees, students, visitors and contractors.

This policy includes establishing and maintaining programs to identify and appropriately control workplace hazards; providing for health and safety committees to identify and address workplace hazards and workplace health and safety issues; providing appropriate tools and equipment; and providing suitable training to employees concerning workplace health and safety.

While the Occupational Health and Safety Act or its regulations do not cover students, MSCTC is also committed to fulfilling its responsibilities concerning the health and safety of its students, and the College believes this policy helps to facilitate this objective.

Student Conduct Code

The college strives to provide an environment that facilitates learning. An action by a student that interferes with the education of any other

student or interferes with the responsibilities and operations of the College may be considered a violation of the Student Conduct Code. Violations of the Student Conduct Code will be subject to disciplinary action pursuant to the process stated herein.

College Jurisdiction

The college asserts jurisdiction for violations of the Student Conduct Code that occur on College property. The College also asserts jurisdiction for violations of the Student Conduct Code that occur off College property when:

- a.) The violation occurs while participating in a College-sanctioned or sponsored activity, including on-line learning;
- b.) The victim of the violation is a member of the College community;
- c.) The violation constitutes a felony under state or federal law;
- d.) The violation interferes with or adversely affects the educational, research or service functions of the College.
- e.) Hazing is involved.

Student Conduct Code Violations

Except for summary suspensions, students who are charged with violating the Student Code of Conduct may continue to be present on campus and attend classes until the charges have been resolved.

Conduct covered by Board of Trustees policy 1B.3 (Sexual Violence Policy), will be subject to the resolution procedures provided in 1.B.1.

The College defines the following behaviors as violations of the Student Conduct Code; these behaviors are subject to the disciplinary sanctions outlined in this policy.

1. Academic Dishonesty: Submission of false records of academic achievement; cheating on assignments or examinations; plagiarizing; altering, forging, or misusing a College academic record; taking, acquiring, or using test materials without faculty permission; acting alone or in coordination with another to falsify records or to dishonestly obtain grades, honors, awards or other professional endorsement.
2. Falsifications: Willfully providing College offices or officials with false, misleading, or incomplete information; intentionally making false reports of a bomb, fire, natural disaster, or other emergency to a College official or an emergency service agency; misusing, altering, forging, falsifying, or

- transferring to another person a College-issued identification; forging, or altering official College documents without appropriate authorization or conspiring with or inducing others to forge or alter College records or documents without proper authorization; violating copyright regulations; tampering with the election of any College-recognized student organization.
3. Identification and Compliance: Failure to comply with directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
 4. College Facilities and Service: Acting to obtain fraudulently (by deceit, unauthorized procedure, bad check or misrepresentation) goods, services, or funds from College departments or student organizations or individuals acting in their behalf; misuse, alteration, or damage of fire-fighting equipment, safety devices, or other emergency equipment or interference with the performance of those specifically charged with carrying out emergency services; wrongful use of College properties or facilities.
 5. Disorderly conduct on the Campus or at a College sanctioned or sponsored activity: Intimidation, threats to, physical abuse of, or harassment that threatens to or endangers the health, safety or welfare of a member of the College community; breach of the peace; physically assaulting another; fighting; obstructing or disrupting teaching, research, administration or public service functions; obstructing or disrupting disciplinary procedures or authorized College activities; vandalism; lewd or indecent conduct.
 6. Theft and Property Damage: Theft or embezzlement of, destruction of, damage to, unauthorized possession of, or wrongful sale or gift of property belonging to the College, or a member of the College community or a campus guest.
 7. Theft or other abuse of computers, including but not limited to:
 - a.) Unauthorized installation of software, unauthorized entry into a file, to use, read or change the contents or for any other purpose.
 - b.) Unauthorized transfer of a file.
 - c.) Unauthorized use of another individual's identification or password.
 - d.) Use of computing facilities to interfere with the work of another student, or college employee.
 - e.) Use of computing facilities to send obscene or abusive messages.
 - f.) Use of computing facilities to interfere with normal operation of the College computing system.
 - g.) Use of campus technologies that would constitute a violation under MnSCU and College Information Technology Acceptable Use Policies.
 8. Hazing: Hazing, for the purpose of initiation, admission, affiliation or membership in a group or organization, which endangers the mental or physical health or safety of a student or which destroys or removes public or private property. Hazing is defined to include any actions, activities, or situations intentionally created to produce the unnecessary, undue mental or physical discomfort, embarrassment, harassment, ridicule, excessive fatigue, interference with scholarship or personal lives, or expose to situations where one's physical or mental well-being may be endangered.
 9. College Rules: Violating MnSCU policy, and published College policies, rules or regulations; violating other College departments' regulations that have been posted or publicized. Provisions contained in College documents shall be deemed "rules" under this code.
 10. Weapons on campus or at College sponsored activities: Use or possession of weapons on College property unless expressly authorized by the College and/or violations of the College policy on weapons. A weapon is broadly defined to mean any object, device, or instrument designed as a weapon or capable of threatening or producing bodily harm including, but not limited to, all firearms (including BB guns), dangerous knives, explosives, explosive fuels, dangerous chemicals, billy clubs, and fireworks
 11. Disruptive Demonstrations: Participation in a campus demonstration that disrupts the

- normal operations of the College and infringes on the rights of other members of the College community; leading or inciting others to disrupt scheduled and/or normal activities of any campus building or area; obstruction which unreasonably interferes with freedom of movement, both pedestrian and vehicular, on campus.
12. Keys: Possession, making, or causing to be made any key to operate locks or locking mechanisms on campus without proper authorization or using or giving to another a key for which there has been no proper authorization.
 13. Violations of Law: Violation of local, state, or federal law on college property or off college property when such a violation poses a threat to the safety or welfare of the College community or disrupts the operations of the College.
 14. Sound Amplification: Using sound amplification or loudspeaker equipment except when such use is authorized by a college official.
 15. Controlled Substances: The possession, sale, use, intent to distribute, or distribution of any narcotic drug, any drug paraphernalia, marijuana, alcoholic beverage, or other addictive, hallucinogenic or other mood modifying substances or reporting to a College event or activity under the influence of a controlled substance.
 16. Abuse of the College Judicial Process, including but not limited to:
 - a.) Failure to obey the summons of the college Judicial Board, Provost or designee.
 - b.) Falsification, distortion, or misrepresentation of information before a college judicial body.
 - c.) Disruption or interference with the orderly conduct of a college judicial proceeding.
 - d.) Initiation of a judicial complaint intentionally without cause.
 - e.) Attempting to discourage an individual's proper participation in, or use of, the judicial system.
 - f.) Attempting to influence the impartiality of a member of the college judicial board prior to and/or during the course of the judicial proceeding.
 - g.) Harassment and/or intimidation of a member of a college judicial board prior to, during, and/or after a judicial proceeding.
 - h.) Failure to comply with the sanction(s) imposed under the Student Conduct Code.
 - i.) Influencing or attempting to influence another person to commit an abuse of the judicial system.
 17. Physical Abuse/Intimidation: Physical or emotional abuse, intimidation, or harassment of a person including, but not limited to, stalking, defamation, intimidation, or harassment through other persons or use of electronic communication devices such as video, computers or telephones.
 18. Fire Safety: Intentionally or recklessly activating a fire alarm without cause, damaging fire safety equipment or initiating a false report, false warning or threat of fire, explosion or other emergency on College premises.
 19. Tobacco Use: Use of any tobacco product in College buildings or classrooms, or in non-smoking areas on College property. Tobacco products include cigarettes, cigars, pipes, smokeless tobacco and any smoking material.

Violation of Law and College Discipline

1. College disciplinary proceedings may be instituted against a student charged with violation of a law that is also a violation of this Student Conduct Code. For example, College disciplinary proceedings may be instituted if both violations result from the same factual situation, without regard to pending civil litigation in court or criminal arrest and prosecution. Proceedings under the Student Conduct Code may be carried prior to, simultaneously with, or following civil or criminal proceedings off-campus.
2. If the alleged offense is also the subject of a proceeding before the judicial board under the Student Conduct Code, the College may advise off-campus authorities of the existence of the Student Conduct Code and how such matters will be handled internally within the College community. The College will cooperate fully with law enforcement and other agencies in the enforcement of criminal law on campus as permitted by

- State and Federal privacy laws. Individual students, staff and faculty members, acting in their personal capacities, remain free to interact with governmental representatives as they deem appropriate.
3. When a student is found to have violated the Student Conduct Code and disciplinary actions include sanctions which terminate enrollment status of the student, the College may hold the student responsible for payment of tuition, fees and other educational costs associated with attendance in the term of enrollment.

SECTION II. JUDICIAL PROCESS

Charges and Informal Process

1. Any member of the college may file a written complaint alleging that a student or organization has violated the Student Conduct Code. Charges should be in writing for the record but can proceed upon verbal notification to the Provost or designee.
2. The Provost or designee shall conduct a preliminary investigation to determine the validity of the charges by meeting with the complainant(s) and accused student(s) within five (5) days of receiving the complaint. Upon determination that the charges are valid, the Provost or designee shall:
 - a.) Provide written notice to the accused student(s) that a complaint has been filed which accused the student(s) of violating the Student Conduct Code. This notice will include the specific violation(s) alleged and the date the alleged violation(s) occurred. This written notice will be sent to the accused student(s) within five (5) days of violation determination.
 - b.) Provide the accused student(s) with a copy of the Student Conduct Code.
 - c.) Inform the accused student(s) of the nature of evidence available to support the complaint.
 - d.) Specify a date and time when the student is required to meet with the Provost or designee to attempt to reach a mutually acceptable resolution of the charges. Allow the student(s) at least 48 hours to prepare for this meeting.
 - e.) Inform the student(s) that failure to appear for this informal meeting shall result in referral of the charges for a formal hearing before the Judicial Board.

3. If a mutually acceptable resolution cannot be reached during the information meeting, including any applicable sanctions, the Provost (or designee) shall refer the case to the college Judicial Board. If a resolution is reached, all parties shall sign the written confirmation of the resolution and the Provost (or designee) shall send copies, including applicable sanctions, to all parties within 48 hours of the meeting.
4. Judicial proceedings shall be consistent with Board of Trustee policy and conducted and maintained in accordance with State and Federal Privacy laws.

B. Formal Process

The formal process will consist of a hearing following these guidelines:

- a.) A Judicial Board will be in place comprised of the Provost, the advisor of the accused student or organization, up to two members of the Student Senate, a faculty member, and a staff members. A counselor may also be in attendance as an ex-officio member to assist with mediation and counseling, but shall not be expected to act in a disciplinarian role. The person bringing forth the claim of misconduct may also be in attendance but may not serve on the judicial board.
- b.) The Provost or designee shall provide the accused student with advance, written notice of the time, place and date of the hearing. The accused student or organization must also be provided in advance with written information regarding the 1) charges; 2) evidence to be presented against the student/organization; and 3) a list of witnesses and the nature of their testimony. If the accused student or organization representatives fail to appear at the appointed time, the hearing may still proceed as scheduled.
- c.) The accused student or organization will be given the opportunity to speak in his/her own defense, to question any witnesses and to have an advisor present. This advisor may give advice to the accused student or organization, but may not question the judicial panel members or witnesses. This advisor may not be the same advisor serving on the judicial panel.
- d.) The accused student or organization will be provided with a written statement of the findings, conclusions and any sanctions

imposed no later than 5 business days following the date of the hearing.

SECTION III. SANCTIONS

The following sanctions may be imposed when students have been found to have violated the Student Conduct Code. More than one of these sanctions may be imposed for any single violation. Failure to comply with imposed sanctions may result in additional sanctions. Additional penalties may be imposed if the student is found to have further violated the Conduct Code.

1. Reprimand and Warning: The issuance of a written reprimand and warning that states that the student(s) is violating or has violated institutional regulations.
2. Restitution: A student may be required to pay the cost for the repair or replacements of any damaged or destroyed property.
3. Confiscation: Goods used or possessed in violation of the Conduct Code, including falsified information or identification, will be confiscated and are not subject to return to the student.
4. Restricted Access: A student may be removed from and/or have access restricted from specified College facilities, including student residence halls.
5. Loss of Privileges: A student may lose privileges to participate in and/or attend College events, represent the College in specified manners, hold office in any College sanctioned organization, receive institutional financial aid, or maintain on-campus student employment.
6. Participation in a Specific Program: A student may be required to participate in a specific program(s), such as an educational program, counseling program, or other program as assigned.
7. Probation: A written notice of probation for violation of the specified regulations. Probation imposed will be for a designated period of time and will include the probability of more severe disciplinary sanctions if the student(s) is found to be violating any institutional regulation during the probationary period.
8. Discretionary Sanctions: Work assignments, service to the College or other related discretionary sanctions. This will be coordinated by the Provost or designee.
9. Suspension: Termination of enrollment for specified period of time, after which the student(s) is eligible to return. Conditions for re-admission may be specified.

10. Expulsion: Permanent termination of student status from the College.
11. Summary Suspension: A summary suspension may be imposed when, in the judgment of the Provost or designee, the accused student's presence on campus would constitute a threat to the safety and well being of members of the campus community. Before implementing the summary suspension, the Provost or designee must give oral or written notice of the intention to impose the summary suspension. The accused student shall be given the opportunity to present oral or written arguments against the imposition of the summary suspension. Notice of the intention to impose the summary suspension shall thereafter be provided in writing to the student.

After the student has been summarily suspended, the Provost or designee must provide the opportunity for a Judicial Board hearing within the shortest reasonable time period, not to exceed 9 days from the date the student received written notification of the summary suspension.

During the summary suspension, the student may not be on College property without obtaining prior, written authorization from the Provost or designee.

SECTION IV. APPEALS

1. A decision reached by the college Judicial Board may be appealed by the accused student(s) to the Chief Student Affairs Officer of the college within five (5) school days of the decision. Appeals must be in writing and shall be sent to the Chief of Student Affairs Officer.
2. An appeal shall be limited to review of the verbatim record of the initial hearing and supporting comments for one of more of the following purposes:
 - a.) To determine whether the original hearing was conducted in a fair manner in light of the charge(s) and evidence presented, and in conformity with prescribed procedures allowing the accused student(s) a reasonable opportunity to prepare and to present a rebuttal of the charge(s) and evidence.
 - b.) To determine whether the evidence confirmed that a violation of the Student Conduct Code occurred.

- c.) To determine whether the sanction(s) imposed were appropriate for the specific violation of the Student Conduct Code.
3. Following a review of the hearing and the appeal presented by the student(s), the Chief Student Affairs Officer shall render a decision. The Chief Student Affairs Officer may: uphold the Judicial Board's decision and sanction(s); determine that the decision was reached in error or inappropriately; or may determine that the sanction was inappropriate. In the latter case, the Chief Student Affairs Officer may issue a lesser sanction. If the Chief Student Affairs Officer decides that the sanction(s) was reached in error or inappropriately, the Chief Student Affairs Officer may require the Judicial Board to hear the case de novo or may choose to absolve the student(s).
 4. The Chief Student Affairs Officer shall notify the student(s) in writing of his or her decision of any new sanction imposed. This written notice will be provided no later than 5 business days following the date of receiving the appeal.
 5. The Chief Student Affairs Officer's decision shall be final with the College and MnSCU.
 6. If the sanction involved suspension for 10 days or more, the student(s) shall be informed of the right to a contested case hearing under Chapter 14 of Minnesota Statutes which states that an appeal may be made to an Administrative Law Judge at the Minnesota State Hearing Examiners Office, St. Paul, Minnesota. The student(s) may request a hearing in writing within five (5) days of receipt of written suspension notice. If the student(s) does not file an appeal within the five (5) days, any further right to appeal shall be waived. The attorney assigned to MnSCU by the Attorney General shall represent the College at this hearing. The Administrative Law Judge shall prepare a report, which contains a recommendation, to the College President. Within a period of not less than twelve (12) nor more than twenty (20) days following receipt of the recommendation, the College President will make a decision. The decision of the College President is final. During this appeal process, the student(s) shall have the right to attend classes and to receive services related to the College program until a final decision has been made, unless the process is the result of actions deemed harmful or potentially harmful to other persons or property.

SECTION V. INTERPRETATION

1. Any questions of interpretation regarding the Student Conduct Code shall be referred to the Chief Student Affairs Officer, or in the case of scholastic dishonesty, to the Chief Academic Affairs Officer of the College.
2. The Student Conduct Code shall be reviewed every year under the direction of the Chief Student Affairs Officer.

SECTION VI. MAINTENANCE OF RECORDS

Records relating to students' histories of student conduct shall be kept as required by law and the college records retention schedule, and shall be kept separate from students' regular records. The only persons having access to these records shall be the College President, the Chief Student Affairs Officer, the Chief Academic Affairs Officer, the Provost or designee, and the Deans. Any other person who wishes to review these files must have permission from the Chief Student Affairs Officer or the Chief Academic Affairs Officer.

Student Involvement in Decision Making

The College values student participation in planning and decision making. The College shall give students the opportunity to participate in activities, committees, events and forums that are related to policy development and/or decision making. Student committee members shall be selected by the Student Senate. Exceptions to student participation on committees may include: Committees established for the evaluation of personnel; Committees established under collective bargaining agreements; Management teams and presidential cabinets.

Tobacco-Free Environment

Minnesota State Community and Technical College is committed to providing a smoke-free environment for students, employees, and visitors. Use of tobacco products on the premises of college facilities is therefore prohibited except in designated outdoor areas. Use of tobacco products in college- or state-owned vehicles is also prohibited.

Workplace Violence

The College is committed to providing a safe working environment for its employees, students, and visitors, free from threats and acts

of violence. In support of this commitment, the College shall implement the following policies in an attempt to reduce the potential for threats and workplace violence, including banning dangerous weapons from workplace sites:

- **Creating a low-risk work environment:** College administrators are expected to promote positive behavior, and to lead by example, by treating employees with the respect and dignity each person deserves. Emphasis will be placed on creating a workplace where established standards of conduct are clear, are communicated, are consistently enforced, and where discipline is used fairly and appropriately to deal with instances of unacceptable behavior.
- **Training:** All college administrators will be provided training in workplace-related threats and acts of violence. This training will focus on prevention and de-escalation of violence, will include suggestions for appropriate responses to threats and acts of violence, and will identify those resources which are available to use once a potential problem has been identified, or an incident has occurred.
- **Employee Counseling and Assistance:** The administration will encourage use of the Employee Assistance Program (EAP). The EAP is primarily an assessment, short-term counseling and referral agency. While administrators, family members, or union representatives may encourage employees to seek help from the EAP, the decision to use those services must be 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.
- **Valuing and Respecting Diversity:** The College values and respects individual differences among people. Harassment of any person in the workplace is strictly prohibited. Incidents of this nature, if not corrected, may result in workplace violence. The administration will continue to treat incidents of harassment and discrimination as outlined in MnSCU Board Policy 1B.1.
- **A Safe Workplace:** College and campus administrators have the primary responsibility for ensuring a safe work environment. They are empowered to take immediate action to resolve or stabilize violent situations in the workplace, and to protect people from harm. Administrators will also ensure that appropriate disciplinary

responses are made to internal workplace acts of violence or aggression.

- **Dangerous Weapon Prohibition:** The administration will work to eliminate dangerous weapons from the workplace. The possession of any dangerous weapon, to include any firearm, in any college workplace by any person other than a law enforcement officer, is strictly prohibited. For the purposes of this plan and policy, the following items are considered to be "Dangerous Weapons":
 - Any weapon which, according to 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) with a blade length of more than three inches, other than those present in the workplace for the specific use of instruction or for food preparation and service.
 - Any "switchblade" knife.
 - "Brass knuckles," "metal knuckles," and similar weapons.
 - Bows, crossbows and arrows.
 - Explosives and explosive devices, including fireworks and incendiary devices.
 - "Throwing stars," "numchucks," clubs, saps, and any other item commonly used as, 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.

Prohibition Of Concealed Weapons

The College adopts in full Policy 5.21 of Minnesota State Colleges and Universities. In addition to concealed firearms, employees, students, and visitors are prohibited from carrying any concealed dangerous weapons (defined in policy 1090-1-01) on college property, exclusive of parking lots. Employees are prohibited from carrying concealed weapons while acting in the course and scope of employment. Violators will be subject to sanctions: employment-related civil sanctions for employees and academic sanctions for students.

NONDISCRIMINATION IN EMPLOYMENT AND EDUCATION OPPORTUNITY

Minnesota State Community and Technical College hereby adopts MnSCU 1B.1 Board Policy and Procedure 1B.1.1 in full:

1B.1 Nondiscrimination in Employment and Education Opportunity

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

Harassment on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation is prohibited. 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 persons having business at, or visiting the educational or working environment.

This policy is directed at verbal and physical conduct that constitutes discrimination /harassment under state and federal law and is not directed at the content of speech. In cases in which verbal statements and other forms of expression are involved, Minnesota State Colleges and Universities will give due consideration to an individual's constitutionally protected right to free speech and academic freedom. However, discrimination and harassment are not within the protections of academic freedom or free speech.

The system office, colleges and universities shall maintain and encourage full freedom, within the law, of expression, inquiry, teaching and research. Academic freedom comes with a responsibility that all members of our education

community benefit from it without intimidation, exploitation or coercion.

This policy shall apply to all individuals affiliated with Minnesota State Colleges and Universities, including but not limited to, its students, employees, applicants, volunteers, agents and Board of Trustees, and is intended to protect the rights and privacy of both the complainant and respondent and other involved individuals, as well as to prevent retaliation or reprisal. Individuals who violate this policy shall be subject to disciplinary or other corrective action.

This policy supersedes all existing system, college and university non-discrimination policies.

Part 2. Definitions.

Subpart A. Consensual Relationship. A sexual or romantic relationship between two persons who voluntarily enter into such a relationship. Employees who are members of the same household should also refer to the Board of Trustees Nepotism policy 4.10.

Subpart B. Discrimination. Discrimination is defined as conduct that is directed at an individual because of his or her protected class 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 or colleges and universities or otherwise adversely affects the individual's employment or education.

Subpart C. Discriminatory harassment. Discriminatory harassment is defined as verbal or physical conduct that is directed at an individual because of his or her protected class, and that is sufficiently severe, pervasive, or persistent so as to have the purpose or effect of creating a hostile work or educational environment.

As required by law, Minnesota State Colleges and Universities has further defined sexual harassment as a form of sexual 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 work or academic performance; or creating an intimidating, hostile, or offensive work or educational environment.

Subpart D. Employee. Minnesota State Colleges and Universities personnel include all faculty, staff, administrators, teaching assistants, graduate assistants, residence directors and student employees.

Subpart E. Protected Class. Protected class for the purpose of this policy means that discrimination and harassment in employment and education are prohibited on the basis of: race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance or sexual orientation. In addition, membership or activity in a local human rights commission is a protected class in employment.

Subpart F. Retaliation. Retaliation includes, but is not limited to, intentionally engaging in any form of intimidation, reprisal or harassment against an individual because he or she made a complaint under this policy or assisted or participated in any manner in an investigation, or process under this policy, regardless of whether a claim of discrimination or harassment is substantiated; or associated with a person or group of persons who are disabled or are of a different race, color, creed, religion, sexual orientation or national origin. Retaliation may occur whether or not there is a power or authority differential between the individuals involved.

Subpart G. Sexual harassment and violence as sexual abuse. Under certain circumstances, sexual harassment or violence may constitute sexual abuse according to

Minnesota law. In such situations, the system office and colleges and universities shall comply with the reporting requirements in M.S. Section 626.556 (reporting of maltreatment of minors) and M.S. Section 626.557 (Vulnerable Adult Protection Act). Nothing in this policy will prohibit the system office or any college or university from taking immediate action to protect victims of alleged sexual abuse. Minnesota State Colleges and Universities 1B.3 Sexual Violence Policy addresses sexual violence.

Subpart H. Student. "Student" means an individual who is:

1. Admitted, enrolled, registered to take or is taking one or more courses, classes, or seminars, credit or noncredit, at any System college or university; or
2. Between terms of a continuing course of study at the college or university, such as summer break between spring and fall academic terms; or
3. Expelled or suspended from enrollment as a student at the college or university, during the pendency of any adjudication of the student disciplinary action.

Part 3. Consensual Relationships. An employee of Minnesota State Colleges and Universities shall not enter into a consensual relationship with a student or an employee over whom he or she exercises direct or otherwise significant academic, administrative, supervisory, evaluative, counseling, or extracurricular authority or influence. In the event a relationship already exists, each college and university and system office shall develop a procedure to reassign evaluative authority as may be possible to avoid violations of this policy. This prohibition does not limit the right of an employee to make recommendation on personnel matters concerning a family or household member where the right to make recommendations on such personnel matters is explicitly provided for in the applicable collective bargaining agreement or compensation plan.

Part 4. Retaliation. Retaliation as defined in this policy is prohibited in the system office, colleges and universities. Any individual subject to this policy who intentionally engages in retaliation shall be subject to disciplinary or other corrective action as appropriate.

Procedure 1B.1.1 Report/Complaint of Discrimination/Harassment Investigation and Resolution

Part 1. Purpose and Applicability. Subpart A.

Purpose. This procedure is designed to further implement Minnesota State Colleges and Universities policies relating to nondiscrimination by providing a process through which individuals alleging violation of Board Policy 1B.1

Nondiscrimination in Employment and Education Opportunity may pursue a complaint. This includes allegations of retaliation, or discrimination or harassment based on sex, race, age, disability, color, creed, national origin, religion, sexual orientation, marital status, or status with regard to public assistance. In addition, discrimination in employment based on membership or activity in a local commission as defined by law is prohibited.

Subpart B. Applicability. This procedure shall apply to all individuals affiliated with Minnesota State Colleges and Universities, including its students, employees, and applicants for employment, and is intended to protect the rights and privacy of both the complainant and respondent and other involved individuals, as well as to prevent retaliation/reprisal. Individuals who violate this procedure shall be subject to disciplinary or other corrective action. A single act of discrimination or harassment may be based on more than one protected class status. For example, discrimination based on anti-Semitism may relate to religion, national origin, or both; discrimination against a pregnant woman might be based on sex, marital status, or both; discrimination against a transgender or transsexual individual might be based on sex or sexual orientation. Not every act that may be offensive to an individual or group constitutes discrimination or harassment. Harassment includes action beyond the mere expression of views, words, symbols or thoughts that another individual finds offensive. To constitute a violation of Board Policy 1B.1, conduct must be considered sufficiently serious to deny or limit a student's or employee's ability to participate in or benefit from the services, activities, or privileges provided by Minnesota State Colleges and Universities.

Subpart C. Scope. This procedure is not applicable to allegations of sexual violence; allegations of sexual violence are handled pursuant to Board Policy 1B.3 Sexual Violence and System Procedure 1B.3.1. In addition, harassment and discrimination complaints not arising from alleged violations of Board Policy 1B.1, are to be addressed under other appropriate policies and established practices.

Part 2. Definitions. The definitions in Board Policy 1B.1 also apply to this procedure.

Subpart A. Designated officer. Designated officer means an individual designated by the president or chancellor to be primarily responsible for conducting an initial inquiry, determining whether to proceed with an investigation under this procedure, and investigating or coordinating the investigation of reports and complaints of discrimination/harassment in accordance with this procedure. Prior to serving as the designated officer, the individual must complete investigator training provided by the Office of the Chancellor.

Subpart B. Decision maker. Decision maker means a high level administrator designated by the president or chancellor to review investigative reports, to make findings whether Board policy 1B.1 has been violated based upon the investigation, and to determine the appropriate action for the institution to take based upon the findings. Prior to serving as a decision maker for complaints under this procedure, administrators must complete decision maker training provided by the Office of the Chancellor.

Subpart C. Retaliation. Retaliation means any action against a complainant or other individual because the individual:

- Participated in the investigation or resolution of a complaint under this procedure;
- Opposed conduct the individual believes was in violation of Board policy 1B.1.; or
- Associates with another individual who is protected from discrimination under Policy 1B.1.

Part 3. Consensual Relationships. Board Policy 1B.1 Nondiscrimination in Employment and Education Opportunity prohibits consensual relationships between an employee and a student or another employee over whom he or she exercises direct or otherwise significant

academic, administrative, supervisory, evaluative, counseling, or extracurricular authority or influence, whether or not both parties appear to have consented to the relationship, except as noted. Examples of prohibited consensual relationships include, but are not limited to:

- An employee and a student if the employee is in a position to evaluate or otherwise significantly influence the student's education, employment, housing, participation in athletics, or any other college or university activity (employee includes, for example, graduate assistants, administrators, coaches, advisors, program directors, counselors and residence life staff);
- A faculty member and a student who is enrolled in the faculty member's course, who is an advisee of the faculty member, or whose academic work is supervised or evaluated by the faculty member; and
- A supervisor and an employee under the person's supervision.
- A faculty member or other employee is prohibited from undertaking a romantic or sexual relationship or permitting one to develop with a student or supervisee who is enrolled in the person's class or is subject to that person's supervision or evaluation.

If a consensual, romantic or sexual relationship exists between an employee and another individual and subsequent events create a supervisor/supervisee, faculty/student or similar relationship between them, the person with evaluative or supervisory authority is required to report the relationship to his or her supervisor so that evaluative functions can be reassigned if possible. This procedure does not cover consensual relationships between individuals that do not require one to exercise direct or otherwise significant academic, administrative, supervisory, evaluative, counseling, or extracurricular authority or influence over the other.

This prohibition does not limit the right of an employee to make a recommendation on personnel matters concerning a person with whom they have a consensual relationship where the right to make recommendations on such personnel matters is explicitly provided for in the applicable collective bargaining agreement or compensation plan.

Part 4. Reporting Incidents of Discrimination/Harassment.

Subpart A. Reporting an incident. Any individual who believes she or he has been or is being subjected to conduct prohibited by Board Policy 1B.1 is encouraged to report the incident to the designated officer. The report/complaint should be brought as soon as possible after an incident occurs. Any student, faculty member or employee who knows of, receives information about or receives a complaint of discrimination/harassment is strongly encouraged to report the information or complaint to the designated officer of the Office of the Chancellor, college, or university.

Subpart B. Duty to report. Administrators and supervisors shall refer allegations of conduct that they reasonably believe may constitute discrimination or harassment under Board Policy 1B.1 to the designated officer, or in consultation with the designated officer may inquire into and resolve such matters.

Subpart C. Reports against a president. A report/complaint against a president of a college or university shall be filed with the Office of the Chancellor. However, complaints against a president shall be processed by the college or university if the president's role in the alleged incident was limited to a decision on a recommendation made by another administrator, such as tenure, promotion or non-renewal, and the president had no other substantial involvement in the matter.

Subpart D. Reports against Office of the Chancellor Employees or Board of Trustees. For reports/complaints that involve allegations against Office of the Chancellor employees, the responsibilities identified in this procedure as those of the president are the responsibilities of the chancellor. Reports/complaints that involve allegations against the chancellor or a member of the Board of Trustees shall be referred to the chair or vice chair of the Board for processing. Such reports/complaints may be assigned to appropriate system personnel or outside investigatory assistance may be designated.

Subpart E. False statements prohibited. Any individual who is determined to have provided false information in filing a discrimination report/complaint or during the investigation of

such a report/complaint may be subject to disciplinary or corrective action.

Subpart F. Withdrawn complaints. If a complainant no longer desires to pursue a complaint, the Office of the Chancellor, colleges, and universities reserve the right to investigate and take appropriate action.

Part 5. Right to Representation. In accordance with federal law and applicable collective bargaining agreement and personnel plan language, represented employees may have the right to request and receive union representation during an investigatory meeting. Nothing in this procedure is intended to expand, diminish or alter in any manner whatsoever any right or remedy available under a collective bargaining agreement, personnel plan or law. Any disciplinary action imposed as a result of an investigation conducted under this procedure will be processed in accordance with the applicable collective bargaining agreement or personnel plan.

Part 6. Investigation and Resolution. The Office of the Chancellor, college or university has an affirmative duty to take timely and appropriate action to stop behavior prohibited by Board Policy 1B.1, conduct investigations and take appropriate action to prevent recurring misconduct.

Subpart A. Personal resolution. This procedure neither prevents nor requires the use of informal resolution by an individual who believes he or she has been subject to conduct in violation of Board Policy 1B.1. In such a situation, the individual should clearly explain to the alleged offender as soon as possible after the incident that the behavior is objectionable and must stop. If the behavior does not stop or if the individual believes retaliation may result from the discussion, the individual should report to the designated officer. Under no circumstance shall an individual be required to use personal resolution to address prohibited behaviors.

Subpart B. Information privacy. Confidentiality of information obtained during an investigation cannot be guaranteed; such information, however, will be handled in accordance with applicable federal and state data privacy laws.

Subpart C. Processing the complaint. The designated officer must be contacted in order to initiate a report/complaint under this procedure.

The scope of the process used in each complaint/report shall be determined by the designated officer based on the complexity of the allegations, the number and relationship of individuals involved, and other pertinent factors.

1. Jurisdiction. The designated officer shall determine whether the report/complaint is one which should be processed through another Office of the Chancellor, college or university procedure available to the complainant; if appropriate; the designated officer shall direct the complainant to that procedure as soon as possible.

2. Conflicts. The designated officer should identify to the president or chancellor/designee any real or perceived conflict of interest in proceeding as the designated officer for a specific complaint. If the president or chancellor/designee determines that a conflict exists, another designated officer shall be assigned.

3. Information provided to complainant. At the time the report/complaint is made, the designated officer shall:

- a.) inform the complainant of the provisions of the Board Policy 1B.1 and this procedure;
- b.) provide a copy of or Web address for Board Policy 1B.1 and this procedure to the complainant;
- c.) determine whether other individuals are permitted to accompany the complainant during investigatory interviews and the extent of their involvement; and
- d.) inform the complainant of the provisions of Board policy 1B.1 prohibiting retaliation.

4. Complaint documentation. The designated officer shall insure that the complaint is documented in writing. The designated officer may request, but not require the complainant to document the complaint in writing using the complaint form of the Office of the Chancellor, college or university.

5. Information provided to the respondent. At the time initial contact is made with the respondent, the designated officer shall inform the respondent in writing of the existence and general nature of the complaint and the provisions of the nondiscrimination policy. At the initial meeting with the respondent, the designated officer shall:

- a) Provide a copy of or Web address for Board Policy 1B.1 and this procedure to the respondent;

b.) provide sufficient information to the respondent consistent with federal and state data privacy laws to allow the respondent to respond to the substance of the complaint;

c.) explain to the respondent that in addition to being interviewed by the designated officer, the respondent may provide a written response to the allegations;

d.) determine whether other individuals are permitted to accompany the respondent during investigative interviews and the extent of their involvement; and

e.) inform the respondent of the provisions of Board policy 1B.1 prohibiting retaliation.

6. Investigatory process. The designated officer shall:

a.) conduct a fact-finding inquiry or investigation into the complaint, including appropriate interviews and meetings;

b.) inform the witnesses and other involved individuals of the prohibition against retaliation;

c.) create, gather and maintain investigative documentation as appropriate;

d.) disclose appropriate information to others only on a need to know basis consistent with state and federal law, and provide a data privacy notice in accordance with state law; and

e.) handle all data in accordance with applicable federal and state privacy laws.

7. Interim Actions.

a.) Employee reassignment or administrative leave. Under appropriate circumstances, the president or chancellor may, in consultation with system legal

counsel and labor relations, reassign or place an employee on administrative leave at any point in time during the report/complaint process. In determining whether to place an employee on administrative leave or reassignment, consideration shall be given to the nature of the alleged behavior, the relationships between the parties, the context in which the alleged incidents occurred and other relevant factors. Any action taken must be consistent with the applicable collective bargaining agreement or personnel plan.

b.) Student summary suspension or other action. Under appropriate circumstances, the president or designee may, in consultation with system legal

counsel, summarily suspend a student at any point in time during the report/complaint process. A summary suspension may be imposed only in accordance with Board Policy 3.6 and associated system procedures. After the student has been summarily suspended, the

report/complaint process should be completed within the shortest reasonable time period, not to exceed nine (9) class days. During the summary suspension, the student may not enter the campus or participate in any college or university activities without obtaining prior permission from the president or designee. Other temporary measures may be taken in lieu of summary suspension where the president or designee determines such measures are appropriate.

8. No basis to proceed. At any point during the processing of the complaint, the designated officer may determine that there is no basis to proceed under Board

Policy 1B.1. The designated officer shall refer the complaint as appropriate. The designated officer shall notify the complainant and respondent of the outcome as appropriate, in accordance with applicable data privacy laws.

Subpart D. Resolution. After processing the complaint the designated officer may consider one or more of the following methods to resolve the complaint as appropriate:

1. Conduct or coordinate education/training;
2. Facilitate voluntary meetings between the parties;
3. Recommend separation of the parties, after consultation with appropriate Office of the Chancellor, college or university personnel;
4. Other possible outcomes may include recommending changes in workplace assignments, enrollment in a different course or program, or other appropriate action;
5. The Office of the Chancellor, college or university may use alternative dispute resolution or mediation services as a method of resolving discrimination or harassment complaints. Alternative dispute resolution and mediation options require the voluntary participation of all parties to the complaint;
6. upon completion of the inquiry, the designated officer may dismiss or refer the complaint to others as appropriate.

Subpart E. Decision process. If the above methods have not resolved the complaint within a reasonable period of time to the satisfaction of the designated officer, or the designated officer feels additional steps should be taken, the procedures in this subpart shall be followed.

1. Designated officer. The designated officer shall:

a.) prepare an investigation report and forward it to the decision-maker for review and decision;
 b.) take additional investigative measures as requested by the decision-maker; and
 c) be responsible for coordinating responses to requests for information contained in an investigation report in accordance with the Minnesota Government Data

Practices Act and other applicable law including, but not limited to, the Family Educational Rights and Privacy Act (FERPA). In determining the appropriate response, the designated officer shall consult with the campus data practice compliance official and/or the Office of General Counsel.

2. **Decision-maker.** After receiving the investigation report prepared by the designated officer, the decision-maker shall:

a.) determine whether additional steps should be taken prior to making the decision.

Additional steps may include:

1. A request that the designated officer conduct further investigative measures;

2. A meeting with the complainant, respondent or other involved individuals. If a meeting involving a represented employee is convened, the complainant or respondent may choose to be accompanied by the bargaining unit representative, in accordance with the applicable collective bargaining agreement and federal and state law; and

3. A request for additional information which may include a written response from the complainant or respondent relating to the allegations of the complaint.

b.) take other measures deemed necessary to determine whether a violation of Policy 1B.1 has been established;

c.) when making the decision, take into account the totality of the circumstances, including the nature and extent of the behaviors, the relationship(s) between the

parties, the context in which the alleged incident(s) occurred, and other relevant factors;

d.) determine the nature, scope and timing of disciplinary or corrective action and the process for implementation if a violation of the nondiscrimination policy occurs. This may include consultation with human resources or supervisory personnel to determine appropriate discipline;

e.) As appropriate, consistent with applicable state and federal data privacy laws, report in writing to the complainant, respondent and the designated officer her or his findings, and the basis for those findings, as to whether Board policy 1B.1 has been violated. The written

response to the complainant shall be provided within 60 days after a complaint is made unless reasonable cause for delay exists.

f.) Conduct that is determined not to have violated Board policy 1B.1 shall be referred to another procedure for further action, if appropriate.

Part 7. Office of the Chancellor, College, or University Action. The Office of the Chancellor, college, or university shall take the appropriate corrective action based on results of the investigation, and the designated officer shall make appropriate inquiries to ascertain the effectiveness of any corrective or disciplinary action. Complainants are encouraged to report any subsequent conduct that violates Board policy 1B.1, as well as allegations of retaliation. Written notice to parties relating to discipline, resolutions, and/or final dispositions resulting from

the report/complaint process is deemed to be official correspondence from the Office of the Chancellor, college or university. In accordance with state law, the Office of the Chancellor, college or university is responsible for filing the complaint disposition concerning complaints against employees with the Commissioner of Employee Relations within 30 days of final disposition.

Part 8. Appeal.

Subpart A. Filing an appeal. The complainant or the respondent may appeal the decision of the decision-maker. An appeal must be filed in writing with the president or designee within ten (10) business days after notification of the decision. The appeal must state specific reasons why the complainant or respondent believes the decision was improper. In a complaint against a president or other official who reports directly to the chancellor, an appeal may be considered by the chancellor whether or not the chancellor served as the decision-maker.

Subpart B. Effect of review. For employees represented by a collective bargaining agreement, an appeal under this procedure is separate and distinct from, and is not in any way related to, any contractual protections or procedures. During the pendency of the appeal disciplinary or corrective action taken as a result of the decision shall be enforced. In addition, in cases involving sanctions of suspension for ten (10) days or longer, students shall be informed

of their right to a contested case hearing under Minnesota Statutes Chapter 14.

Subpart C. Appeal process. The president or designee shall review the record and determine whether to affirm or modify the decision. The president or designee may receive additional information if the president or designee believes such information would aid in the consideration of the appeal. The decision on appeal shall be made within a reasonable time and the complainant, respondent and designated officer shall be notified in writing of the decision, consistent with applicable state and federal data privacy laws. The decision on appeal exhausts the complainant's and respondent's administrative remedies under this procedure except as provided herein.

Part 9. Education and Training. The Office of the Chancellor, colleges and universities shall provide education and training programs to promote awareness and prevent discrimination/harassment, such as educational seminars, peer-to-peer counseling, operation of hotlines, self-defense courses, and informational resources. Education and training programs should include education about Board policy 1B.1 and this procedure. All colleges and universities and the Office of the Chancellor shall promote awareness of Board policy 1B.1 and this procedure, and shall publicly identify the designated officer.

Part 10. Distribution of Board Policy 1B.1 and this Procedure. Information regarding Board Policy 1B.1 and this procedure shall, at a minimum, be distributed to students at the time of registration and to employees at the beginning of employment. Distribution may be accomplished by posting on an internet Web site, provided all students and employees are directly notified of how to access the policy and procedure by an exact address, and that they may request a paper copy. Copies of the policy and procedure shall be conspicuously posted at appropriate locations at the Office of the Chancellor and on college and university campuses at all times and shall include the designated officers' names, locations and telephone numbers. Designated officers also must be identified by name, location and phone number in informational publications such as student catalogs, student and employee handbooks, bulletin boards, campus Web sites and other appropriate public announcements.

Part 11. Maintenance of Report/Complaint Procedure Documentation. During and upon the completion of the complaint process, the complaint file shall be maintained in a secure location in the office of the designated officer for the Office of the Chancellor, college or university in accordance with the applicable records retention schedule. Access to the data shall be in accordance with the respective collective bargaining agreement or personnel plan, the Minnesota Government Data Practices Act, the Family Educational Rights and Privacy Act or other applicable law.

MSCTC Designated Officers

To support MnSCU Board Policy 1B.1 and Procedure 1B.1.1., the following individuals are the designated officers for MSCTC. These individuals have the primary responsibility for investigating or coordinating the investigation of reports and complaints of discrimination/harassment.

Robert Anderson	218-736-1530
John Centko	218-299-6504
Linda Erickson	218-299-6825
Dacia Johnson	218-736-1512
Trish Schrom	218-299-6631

**STATEMENT OF NON-DISCRIMINATION:
NOTIFICATION UNDER TITLE IX AND
SECTION 504**

(Non-discrimination based on sex or disability)

Minnesota State Community and Technical College does not discriminate on the basis of race, color, national origin, sex, disability or age in its educational programs, activities and employment. The following persons have been designated by the College to receive inquiries regarding the College's Title IX (non-discrimination based on sex) and Section 504 (non-discrimination based on disability) policies:

Students and Prospective Students**Detroit Lakes:**

Section 504: Pat Johnson, Student Services Associate, E101D 218-846-7467

Title IX: Helene Hedlund, Dean of Academic Affairs and Student Services, 218-846-3724

Fergus Falls:

Section 504: Dr. David Seyfried, Director of the Center for Students with Disabilities, Office S452, 218-736-1595

Title IX: Robert Anderson, Dean of Student Services, Office C341, 218-736-1530

Moorhead:

Section 504: Ted Guerrero, Learning Services Coordinator, Student Services, 218- 299-6514

Title IX: Shawn Anderson, Dean of Student Services, 218-299- 6535

Wadena:

Section 504: Mike Heino, Learning Services Coordinator, 218-631-7870

Title IX: Mary Rousslang, Dean of Academic Affairs and Student Services, 218-631-7812

Employees or Prospective Employees

Section 504 and Title IX:

Linda Erickson, Human Resources Director, Moorhead, 218- 299-6825

Dacia Johnson, Assistant Human Resources Director, Fergus Falls campus, Office A515, 218-736-1512

Program Profiles



Program Inventory

Program Profiles

**Special
Programs**

Page	Program Title	Degree	Credits	D	F	M	W	O
65	Accounting	AAS/AS/Diploma	72/64/64	D	F	M	W	
65	Accounting Clerk	Diploma	33	D		M	W	
65	Administrative Assistant	AAS	70			M	W	
66	Administrative Management Technology	AAS	66	D				
66	Administrative Support	Diploma	33	D		M	W	WE
66	Administrative Support - Bookkeeping Emphasis	Diploma	49	D		M	W	
67	Administrative Support - Microcomputer Emphasis	Diploma	49	D		M	W	
67	Architectural Technology	AAS	72	D				
67	Auto Body Collision Technology	AAS/Diploma	72/64	D				
68	Automotive Service Technology	AAS/Diploma	72/69	D		M		
68	Biological Sciences	AS	64		F	M		
69	Business Management	AS	64		F			
69	Business Management/Ownership	Diploma	34	D				
69	Business Office Systems Specialist	AAS	72				W	
69	Cancer Registry Management	Certificate	30					DE
70	Carpentry	AAS/Diploma	72/64			M	W	
70	Carpentry - Residential	Diploma	34					WE
71	Carpentry Assisting	Certificate	30			M	W	
71	Child Care and Education - Level II	Certificate	25				W	CC
71	Cisco Networking	Certificate	12	D			W	DE CC
71	Civil Engineering Technology	AAS	69	D				
71	Computer & Network Technology	AAS/Certificate	66/30			M	W	DE CC
72	Computer Help Desk Technician	AAS/Diploma	68/34	D				DE
73	Computer Information Systems	Diploma	66		F	M		
73	Computer Network Security	AAS	70	D				
74	Computer Programming	AAS/Diploma	70/71			M		DE
74	Computer Support Essentials	Certificate	15	D				DE
74	Computer Systems Electronics	AAS/Diploma	72/64				W	
76	Computer & Network Technology	AAS	66		F			
75	Construction Electricity	Diploma	74			M	W	
75	Construction Electricity - Industrial Maintenance Emphasis	Diploma	72				W	
75	Construction Management	AAS	72			M		
76	Correctional Officer	Certificate	29			M		
76	Cosmetology	Diploma	58				W	
76	Criminal Justice	AS	64		F	M		
77	Culinary Arts	Diploma	64			M		
77	Dental Assisting	Diploma	45			M		
77	Dental Hygiene	AAS	88			M		
78	Diesel Equipment Technology (General)	AAS/Diploma	79/65			M		
78	Diesel Equipment Technology (Case IH & New Holland Sponsored)	AAS	79			M		
79	Diesel Equipment Technology (John Deere Sponsored)	AAS	79			M		
80	Early Childhood & Paraprofessional	AS	64				W	CC
80	Electrical Line Worker Technology	Diploma	36				W	
80	Electronics Technology	AAS/Diploma	72/64			M	W	
81	Electronics Technology Core	Certificate	30				W	
81	Esthetist	Certificate	24				W	
81	Fashion Marketing and Management	AAS/Diploma	70			M		
82	Financial & Credit Services Administration	AAS	66			M		
82	Fire Service Preparation	Certificate	18			M		
83	Graphic Design Technology	AAS/Diploma	64			M		
83	Health Information Technology	AAS	64					DE
83	Human Resources	AAS/AS	67/64			M		DE

Page	Program Title	Degree	Credits	D	F	M	W	O
84	HVAC - Heating, Ventilation, & Air Conditioning	Diploma	42				W	
84	Industrial Mechanical Maintenance	AAS/Certificate/Diploma	69/21/39					CC
85	Legal Administrative Assistant	AAS	72			M		DE
85	Legal Secretary Technology	Diploma	42			M		DE
	Liberal Arts & Sciences	AA	64		F	M		DE
85	Manicurist	Certificate	17				W	
85	Manufacturing Engineering Technology	AAS	70					CC
86	Manufacturing Technician	Certificate	19					CC
86	Manufacturing Technology	Diploma	37					CC
86	Marine Engine Technology	AAS/Diploma/Certificate	72/64/30	D				
87	Massage Therapist	Diploma	32				W	
87	Mechanical Drafting & Design	AAS/Diploma	72/64			M		
88	Medical Administrative Assistant	AAS	68			M	W	DE
88	Medical Coding & Insurance	Certificate	27			M	W	WE DE
88	Medical Laboratory Technician	AS	64		F			
89	Medical Office Assistant	Diploma	35			M	W	DE
89	Medical Transcription	Certificate	29			M	W	DE
89	Music	AFA	64		F			
89	Nanoscience Technology	AAS	72			M		
90	Network Communication	AS	64		F			
90	Nursing (Generic Option)	Associate Degree (RN)	64	D	F		W	
90	Nursing (Mobility Option)	Associate Degree (RN)	32	D	F	M	W	
91	Paralegal	AAS	64	D				
91	Pharmacy Technology	AAS/Diploma	60/36				W	DE
92	Phlebotomy Technician	Certificate	10		F			
92	Plumbing Technology	AAS/Diploma	64/36			M	W	
92	PowerSports Technology	Diploma	34	D				
92	Practical Nursing	AAS/Diploma	63/47	D	F	M	W	
93	Radiologic Technology	AAS	87	D				DE
94	Refrigeration and Air Conditioning	Diploma	64			M		
94	Sales and Marketing	Diploma	32	D				
94	Sales and Marketing - Professional Sales Emphasis	AAS	70	D				
94	Sales, Marketing, and Management	AAS/Diploma	70			M		
95	Supervision and Leadership	AS	64					CC
95	Supervisory Leadership	AAS/Certificate	63/30					CC
96	Supervisory Leadership Essentials	Certificate	18					CC
96	Telecommunications Engineering Technology	AAS/Diploma	72/66				W	
96	Telecommunications Engineering Technology - Information Systems Emphasis	AAS/Diploma	72/64				W	
97	Telecommunications Service & Installation Technology	Diploma	36				W	
97	Voice & Video Over Internet Protocol	Certificate	15				W	
98	Web Development	AAS/Certificate/Diploma	68/30/65	D				DE

Degrees

Associate in Arts (AA) degree is designed for transfer to a four-year institution. The AA degree requires students to complete the Minnesota transfer curriculum. Majors listed are among the most popular; ask a college admissions counselor for details about your choice of major.

Associate in Science (AS) degree is awarded for the successful completion of a program which transfers to a baccalaureate major in a scientific or technical field. Program includes a minimum of 30 general education courses.

Associate in Applied Science (AAS) degree is a combination of technical credits and a minimum of 20 general education credits. MSCTC has articulation agreements with some four-year institutions that allow transfer of a wide range of credits.

Diploma is the vocational degree awarded upon completion of a technical program. Studies include technical credits only, with 6 – 12 general studies credits related to your technical education.

Certificate is awarded upon completion of a program requiring 30 or fewer credits and requires a minimum of 3 general education credits.

Detroit Lakes (D)

Fergus Falls (F)

Moorhead (M)

Wadena (W)

Corporate Credit (CC)

Distance Education (DE)

White Earth (WE)

Visit www.minnesotaonline.mnscu.edu for an online catalog of more than 1,000 courses and 70 academic programs offered online by Minnesota State Colleges and Universities.

ASSOCIATE IN ARTS DEGREE (AA)

(Effective Fall 2005)

REQUIREMENTS

The Associate in Arts Degree can be used to fulfill freshman-sophomore general education requirements in all the state universities in Minnesota, and at several colleges within the University of Minnesota. The degree is the basic graduation award toward which most students will work if they intend to transfer. It emphasizes a broad general education. In order to obtain an A. A. degree, students must complete the following uniform requirements.

1. Successful completion of a minimum of 64 semester credits numbered 1000 or above.
2. Achieve an overall GPA of 2.00.
3. Earn at least 20 of the 64 credits at MSCTC. (This number is reduced from 20 to 12 for students transferring within Minnesota State College and University System).
4. Complete a minimum of 40 credits of liberal education.

Students may satisfy the liberal education requirement with a variety of courses and credits. Some courses will serve more than one of the ten (10) required areas of emphasis. Fulfilling the minimum required credits of courses in each area of emphasis will not satisfy the 40 credit liberal education minimum. Some additional credits beyond the minimum requirements in Areas 1-10 are required to achieve the overall 40 credit liberal education component. Students should carefully review and tally their progress.

In order to be certified as having met all the requirements of the College's TRANSFER CURRICULUM, a student must successfully complete courses as prescribed in the following Liberal education distribution areas:

AREA 1: Written and Oral Communication

9 Credit Minimum

ENGL 1101 College Writing 1

and
ENGL 1102 College Writing II
plus one of the following speech courses
SPCH 1112 Small group Communication
SPCH 1114 Public Speaking
SPCH 1150 Interpersonal Communication

AREA 2: Critical Thinking

Students must complete 2 courses from any two of the following discipline areas:

BIOL 1104 Biology of Human Concerns (3)
BIOL *1107 Environmental Science Issues Lecture (3 no lab and 10)
BIOL 1108 Environmental Science Issues Lab (3, 10)
BIOL 1112 General Biology II
BIOL (1120) Environmental Science (3, 10) Course discontinued
BIOL (2201) Principles of Nutrition Course discontinued
BIOL *2202 Principles of Nutrition (3 no lab)
CHEM 1100 Fundamental Concepts of Chemistry (3)
CHEM 1101 Principles of General Chemistry (3)
CHEM (1102) Medical Chemistry (3) Course discontinued
CHEM (*1107) Intro to Inorganic, Organic and Biochemistry (3 no lab and 10) Course discontinued
CHEM 1111 General Inorganic Chemistry I (3)
CHEM 1112 General Inorganic Chemistry II (3)
CHEM 2224 Organic Chemistry I (3)
CHEM 2225 Organic Chemistry II (3)
ECON 1250 International Business and Economics (5, 8)
ENGL 1201 Technical Writing
ENGL 2230 Environmental Literature (6, 10)
ENGL 2231 Intro to Lit: Poetry (6, 7)
ENGL (2232) Poetry: World Voices (6, 8) Course discontinued
ENGL (2233) Choices in Short Stories (6, 9) Course discontinued
ENGL 2234 Intro to Lit: Short Stories (6, 7)
ENGL 2235 Intro to Lit: Drama (6, 8)
ENGL 2236 Intro to Lit: The Novel (6, 7)
ENGL 2237 Intro to Lit: Short Prose (6, 9)
ENGL 2239 Nature Writers (6, 10)
ENGL 2330 Individual Authors: (Authors Vary) (6)
HUM 1101 Intro to Humanities (6)
HUM 1110 Native American Culture (6, 7)
HUM 2210 The Study of Film (6)
HUM 2236 Technology in the Humanities (6, 8)
MATH 1100 World of Mathematics (4)
MATH 1114 College Algebra (4)
MATH 1115 Functions/Trigonometry (4)
MATH 1120 Applied Calculus/Linear Algebra (4)
MATH 1134 Analytic Geometry and Calculus I (4)
MATH 1135 Analytic Geometry and Calculus II (4)
MATH 1213 Introduction to Statistics (4)
MATH 2200 Principles of Arithmetic (4)
MATH 2231 Analytic Geometry and Calculus III (4)
MATH 2257 Linear Algebra (4)
MATH 2259 Differential Equations (4)
PHIL 1201 Ethics (6, 9)
PHIL 1211 Intro to Philosophy (6)
PHIL 2210 Morals and Medicine (9)
PHYS (1100) Fundamental Concepts of Physics (3) Course discontinued
PHYS 1101 Physics and the Environment (3, 10)
PSCI 1112 American National Government (5, 9)
PSCI 1113 State and Local Government (5, 9)
PSCI 1114 Intro to Civil Law (5, 9)
PSCI 1150 Current Politics (5, 8)

PSYC	1101	Human Interaction (5)
PSYC	1107	Environmental Psychology (5, 10)
PSYC	(1211)	General Psychology (5) Course discontinued
PSYC	2226	Behavior and Environmental Management (5, 10)
SOC 1111		Intro to Sociology (5, 7)
SOC 2215		Criminology (5)
SPCH	1112	Small Group Communication (1)

MATH	1213	Introduction to Statistics (2)
MATH	2200	Principles of Arithmetic (2)
MATH	2231	Analytic Geometry and Calculus III (2)
MATH	2257	Linear Algebra (2)
MATH	2259	Differential Equations (2)

AREA 3: Natural Sciences

Complete a minimum of 6 credits from the following list. At least one course must include a lab (* denotes non-lab courses).

BIOL 1005		Survey of Anatomy and Physiology
BIOL 1102		Intro to Horticulture (10)
BIOL 1104		Biology of Human Concerns (2)
BIOL *1107		Environmental Science Issues Lecture NO LAB (2, 10)
BIOL 1108		Environmental Science Issues Lab (2, 10)
BIOL 1111		General Biology I (Cell)
BIOL 1112		General Biology II
BIOL (1120)		Environmental Science (2, 10) Course discontinued
BIOL 1161		Intro to Horticulture (10)
BIOL *2202		Principles of Nutrition NO LAB (2)
BIOL 2230		Anatomy and Physiology I
BIOL 2232		Anatomy and Physiology II
BIOL (2256)		Practical Microbiology Course discontinued
BIOL 2257		Medical Microbiology
BIOL (2258)		Medical Microbiology Lab Course discontinued
BIOL 2266		Diagnostic Microbiology
CHEM	1100	Fundamental Concepts of Chemistry (2)
CHEM	1101	Principles of General Chemistry (2)
CHEM	(1102)	Medical Chemistry (2) Course discontinued
CHEM	(*1107)	Intro to Inorganic, Organic and Biochemistry NO LAB (2, 10) Course discontinued
CHEM	1111	General Inorganic Chemistry I (2)
CHEM	1112	General Inorganic Chemistry II (2)
CHEM	2224	Organic Chemistry I (2)
CHEM	2225	Organic Chemistry II (2)
PHYS	1100	Fundamental Concepts of Physics (2) Course discontinued
PHYS	1101	Physics and the Environment (2, 10)
PHYS	*1105	Topics in Physics
PHYS	1106	Fundamentals of Physics - Mechanics
PHYS	1401	College Physics I
PHYS	1402	College Physics II
PHYS	1411	Engineering Physics I
PHYS	1412	Engineering Physics II
ZOO (2201)		Survey of Anatomy and Physiology
ZOO (*2230, 2231, *2232, 2233)		Human Anatomy and Physiology I and II

These Anatomy and Physiology Courses have been discontinued

AREA 4: Mathematics and Logical Reasoning

Complete a minimum of 3 credits

MATH	(1010)	Intro: College Algebra Course discontinued
MATH	1100	World of Mathematics (2)
MATH	1114	College Algebra (2)
MATH	1115	Functions/Trigonometry (2)
MATH	1120	Applied Calculus/Linear Algebra (2)
MATH	1134	Analytic Geometry and Calculus I (2)
MATH	1135	Analytic Geometry and Calculus II (2)

AREA 5: History and the Social and Behavioral Sciences

Complete a minimum of 9 credits selected from two different discipline areas.

ANTH	1100	Intro to Anthropology (8)
ECON	1250	International Business and Economics (2, 8)
ECON	2210	Macroeconomics
ECON	(2221)	Macroeconomics (8) Course discontinued
ECON	2222	Microeconomics (9)
HIST 1110		Western Civilization Ancient-1400 (8)
HIST 1111		Western Civilization 1400's-1600's (8)
HIST 1112		Western Civilization 1600's-1800's (8)
HIST 1113		Europe: 1900's-1939 (8)
HIST 1114		Europe: 1939-present (8)
HIST 2211		American History: Colonial Period (7)
HIST 2212		American History: 19 th Century (7)
HIST 2213		American History: 20 th Century (7)
HUM 2500		Honors Colloquy (7)
PSCI 1112		American National Government (2, 9)
PSCI 1113		State and Local Government (2, 9)
PSCI 1114		Intro to Civil Law (2, 9)
PSCI 1150		Current Politics (2, 8)
PSCI 2204		Comparative Government (8)
PSYC	1101	Human Interaction (2)
PSYC	(1103)	Psychology of Interpersonal Communication Course discontinued
PSYC	1107	Environmental Psychology (2, 10)
PSYC	1200	General Psychology (9)
PSYC	(1211)	General Psychology (2) Course discontinued
PSYC	(1212)	General Psychology (9) Course discontinued
PSYC	2220	Abnormal Psychology
PSYC	2222	Development Psychology (9)
PSYC	2224	Social Psychology (7)
PSYC	2226	Behavior and Environmental Management (2, 10)
SOC 1111		Intro to Sociology (2, 7)
SOC 1113		Social Problems (9)
SOC 1114		Social Problems Field Experience
SOC 2211		Marriage and Family
SOC 2215		Criminology (2)
SOC 2216		Minority Group Relations (7)
SOC 2217		Rural Sociology (7)
WMST 1130		Intro to Women's Studies (7)

AREA 6: The Humanities and Fine Arts

Complete a minimum of 9 credits selected from the 3 different discipline areas.

(A maximum of 3 Fine Arts credits may be utilized)

ART 1121		World of Art I Prehistory through Middle Ages (8)
ART 1122		World of Art II (8)
ART 1124		American Art History (7)
ENGL	2230	Environmental Literature (2, 10)
ENGL	2231	Intro to Lit: Poetry (2, 7)
ENGL	(2232)	Poetry: World Voices (2, 8) Course discontinued

ENGL	(2233)	Choices in Short Stories (2, 9)	Course discontinued
ENGL	2234	Intro to Lit: Short Stories (2, 7)	
ENGL	2235	Intro to Lit: Drama (2, 8)	
ENGL	2236	Intro to Lit: The Novel (2, 7)	
ENGL	2237	Intro to Lit: Short Prose (2, 9)	
ENGL	2239	Nature Writers (2, 10)	
ENGL	2302	American Ethic Literature (7)	
ENGL	2310	Intro to Mythology	
ENGL	2314	Intro to Shakespeare	
ENGL	2321	Women in Literature (7)	
ENGL	2330	Individual Authors: (Authors Vary) (2)	
ENGL	2331	American Literature I (7)	
ENGL	2332	American Literature II (7)	
ENGL	2361	British Literature I (8)	
ENGL	2362	British Literature II (8)	
ENGL	(2370)	Children's Literature	Course discontinued
FREN	2211	Intermediate French I (8)	
FREN	2212	Intermediate French II (8)	
HUM	1101	Intro to Humanities	
HUM	(1102)	International Film (8)	Course discontinued
HUM	1105	Religion in Humanities (8)	
HUM	1110	Native American Culture (2, 7)	
HUM	(1115)	World Culture (8)	Course discontinued
HUM	1120	Culture of Italy I (8)	
HUM	1121	Culture of Italy II (8)	
HUM	1132	Women in Humanities (7)	
HUM	1133	Men in Humanities	
HUM	1134	Global Perspectives for Women (8)	
HUM	2210	The Study of Film (2)	
HUM	2230	World Cinema (8)	
HUM	2236	Technology in the Humanities (2, 8)	
HUM	2281	Culture of the British Isles (8)	
HUM	2291	Field Experience: Europe (8)	
HUM	2292	Field Experience: Travel Abroad (8)	
MUSC	1111	Fundamentals of Music	
MUSC	1115	Exploring Our American Musical Heritage (7)	
MUSC	1116	The World of Music	
MUSC	1121	Comprehensive Musicianship I	
MUSC	1122	Comprehensive Musicianship II	
MUSC	2221	Comprehensive Musicianship III	
MUSC	2222	Comprehensive Musicianship IV	
PHIL	1201	Ethics (2, 9)	
PHIL	1211	Intro to Philosophy (2)	
SPAN	2211	Intermediate Spanish I (7)	
SPAN	2212	Intermediate Spanish II (8)	
SPCH	2218	Oral Interpretation	
THTR	1105	Beginning Acting	
THTR	1111	Intro to Theatre	

The Fine Arts

ART	1105	Inter Cultural Art and Design (7)
ART	1110	Intro to Art
ART	1111	Beginning Drawing and Figure Drawing
ART	1112	Beginning Painting and Watercolor
ART	1115	Life Drawing
ART	1116	Pastel Drawing
ART	1135	Poster, Lettering & Commercial Art
ART	1140	Handbuilt Ceramics
ART	1141	Ceramics I

ART	2211	Studio Painting and Framing
ART	2218	Printmaking
ART	2222	Watercolor
ART	2241	Ceramics II
ENGL	2221	Creative Writing - Poetry
ENGL	2222	Creative Writing - Fiction
MUSC	1112	Beginning Class Guitar
MUSC	1113	Beginning Class Voice
MUSC	1114	Beginning Class Piano
MUSC	1123	Sight Singing & Ear Training I
MUSC	1124	Sight Singing & Ear Training II
MUSC	1131	Civic Orchestra
MUSC	1135	Voice Ensemble
MUSC	1141	Concert Choir
MUSC	1145	Area Chorale
MUSC	1151	Individual Voice Lessons
MUSC	1162	Jazz Ensemble
MUSC	1181	Individual Instrumental Lessons
MUSC	1191	Individual Piano Lessons
MUSC	2251	Advanced Individual Voice Lessons
MUSC	2291	Advanced Individual Piano Lessons
THTR	1112	Intro to Stagecraft
THTR	1131	Drama Lab: Acting
THTR	1141	Drama Lab: Stagecraft

AREA 7: Human Diversity

Complete one course

ART	1105	Inter Cultural Art and Design (6F)
ART	1124	American Art History (6)
ENGL	2231	Intro to Lit: Poetry (2, 6)
ENGL	2234	Intro to Lit: Short Stories (2, 6)
ENGL	2236	Intro to Lit: The Novel (2, 6)
ENGL	2302	American Ethic Literature (6)
ENGL	2321	Women in Literature (6)
ENGL	2331	American Literature I (6)
ENGL	2332	American Literature II (6)
HIST	2211	American History: Colonial Period (5)
HIST	2212	American History: 19 th Century (5)
HIST	2213	American History: 20 th Century (5)
HUM	1110	Native American Culture (2, 6)
HUM	1132	Women in Humanities (6)
HUM	2500	Honors Colloquy (5)
MUSC	2230	Education and Multicultural America
MUSC	1115	Exploring Our American Musical Heritage (6)
PSYC	2224	Social Psychology (5)
SOC	1111	Intro to Sociology (2, 5)
SOC	2216	Minority Group Relations (5)
SOC	2217	Rural Sociology (5)
SPAN	2211	Intermediate Spanish I (6)
SPCH	2216	Intercultural Communication
WMST	1130	Intro to Women's Studies (5)

AREA 8: Global Perspective

Complete one course

ANTH	1100	Intro to Anthropology (5)
ART	1121	World of Art I Prehistory through Middle Ages (6)
ART	1122	World of Art II (6)
ECON	1250	International Business and Economics (2, 5)
ECON	(2221)	Macroeconomics (5) Course discontinued
ENGL	(2232)	Poetry: World Voices (2, 6) Course discontinued
ENGL	2235	Intro to Lit: Drama (2, 6)
ENGL	2361	British Literature I (6)
ENGL	2362	British Literature II (6)

FREN 2211 Intermediate French I (6)
 FREN 2212 Intermediate French II (6)
 HIST 1110 Western Civilization Ancient-1400 (5)
 HIST 1111 Western Civilization 1400's-1600's (5)
 HIST 1112 Western Civilization 1600's-1800's (5)
 HIST 1113 Europe: 1900's-1939 (5)
 HIST 1114 Europe: 1939-present (5)
 HUM (1102) International Film (6) Course discontinued
 HUM 1105 Religion in Humanities (6)
 HUM (1115) World Culture (6) Course discontinued
 HUM 1120 Culture of Italy I (6)
 HUM 1121 Culture of Italy II (6)
 HUM 1134 Global Perspectives for Women (6)
 HUM 2230 World Cinema (6)
 HUM 2236 Technology in the Humanities (2, 6)
 HUM 2281 Culture of the British Isles (6)
 HUM 2291 Field Experience: Europe (6)
 HUM 2292 Field Experience: Travel Abroad (6)
 PSCI 1150 Current Politics (2, 5)
 PSCI 2204 Comparative Government (5)
 SPAN 2212 Intermediate Spanish II (6)

AREA 9: Ethical and Civic Responsibility

Complete one course

ECON 2222 Microeconomics (5)
 ENGL (2233) Choices in Short Stories (2, 6) Course discontinued
 ENGL 2237 Intro to Lit: Short Prose (2, 6)
 JOUR 1131 Mass Communications
 MCOM (1131) Mass Communications Course discontinued
 PHIL 1201 Ethics (2, 6)
 PHIL 2210 Morals and Medicine (2)
 PSCI 1112 American National Government (2, 5)
 PSCI 1113 State and Local Government (2, 5)
 PSCI 1114 Intro to Civil Law (2, 5)
 PSYC 1200 General Psychology (5)
 PSYC (1212) General Psychology (5) Course discontinued
 PSYC 2222 Development Psychology (5)
 SOC 1113 Social Problems (5)

AREA 10: People and the Environment

Complete one course

BIOL 1102 Intro to Horticulture (3)
 BIOL *1107 Environmental Science Issues Lecture (2, 3 no lab)
 BIOL 1108 Environmental Science Issues lab (2, 3)
 BIOL 1111 General Biology I (Cell)
 BIOL (1120) Environmental Science (2, 3) Course discontinued
 BIOL 1161 Intro to Horticulture (3)
 CHEM (*1107) Intro to Inorganic, Organic and Biochemistry (2 and 3 no lab) Course discontinued
 ENGL 2230 Environmental Literature (2, 6)
 ENGL 2239 Nature Writers (2, 6)
 PHYS 1101 Physics and the Environment (2, 3)
 PSYC 1107 Environmental Psychology (2, 5)
 PSYC 2226 Behavior and Environmental Management (2, 5)

5. Elective credits to bring total to 64.

() denotes a discontinued course.

Minnesota Transfer Curriculum (MNTC) Goals

- **Area 1** - Written and Oral Communication
- **Area 2** - Critical Thinking
- **Area 3** - Natural Sciences
- **Area 4** - Mathematics and Logical Reasoning
- **Area 5** - History and the Social and the Behavioral Sciences
- **Area 6** - The Humanities and Fine Arts (6F)
- **Area 7** - Human Diversity
- **Area 8** - Global Perspective
- **Area 9** - Ethic and Civic Responsibility
- **Area 10** - People and the Environment
- **Former Northwest Technical College (DL,MHD,WD)**
MNTC course listings

() denotes a discontinued course

Sem	Disc	Sem	Sem	MNTC	Goals	Sem	Title
					5, 8		Intro to Anthropology
					6F, 7		Inter Cultural Art and Design
					6F		Intro to Art
					6F		Begin Drawing & Figure Drawing
					6F		Beginning Painting & Watercolor
					6F		Life Drawing
					6F		Pastel Drawing
					6, 8		World of Art I Prehistory through Middle Ages
					6, 8		World of Art II
					6, 7		American Art History
					6F		Poster, Letter & Commercial Art
					6F		Handbuilt Ceramics
					6F		Ceramics I
					6F		Studio Painting and Framing
					6F		Printmaking
					6F		Watercolor
					6F		Ceramics II
					3		Survey of Anatomy & Physiology
					3, 10		Intro to Horticulture
					2, 3		Biology of Human Concerns
					2, 3 no lab		10Environ Science Issues Lecture
					2, 3, 10		Environmental Science Issues Lab
					3, 10		General Biology I (Cell)
					2, 3		General Biology II
					2, 3, 10		Environmental Science
					3, 10		Intro to Freshwater Biology
					2		Principles of Nutrition
					2, 3 no lab		Principles of Nutrition
					3		Anatomy and Physiology I
					3		Anatomy and Physiology II
					3		Practical Microbiology
					(2258)		Medical Microbiology Lecture
					3		Diagnostic Microbiology
					2, 3		Fundamental Concepts of Chemistry
					2, 3		Principles of General Chemistry
					2, 3		Medical Chemistry
					2, 3 no lab, 10		Intro to Inorganic, Organic & Biochemistry
					2, 3		General Inorganic Chemistry I
					2, 3		General Inorganic Chemistry II
					2, 3		Organic Chemistry I
					2, 3		Organic Chemistry II
					2, 5, 8		International Business & Econ
					3		ECON 2210
					5, 8		ECON (2221)
					5, 9		ECON 2222
					1		ENGL (1002)
					1		ENGL (1003)
					1		ENGL 1101
					1		ENGL 1102
					2		ENGL 1201
					6F		ENGL 2221
					6F		ENGL 2222
					2, 6, 10		ENGL 2230
					2, 6, 7		ENGL 2231
					2, 6, 8		ENGL (2232)
					2, 6, 9		ENGL (2233)
					2, 6, 7		ENGL 2234
					2, 6, 8		ENGL 2235
					2, 6, 7		ENGL 2236
					2, 6, 9		ENGL 2237
					2, 6, 10		ENGL 2239
					6, 7		ENGL 2302
					6		ENGL 2310
					6		ENGL 2314
					6, 7		ENGL 2321
					2, 6		ENGL 2330
					6, 7		ENGL 2331
					6, 7		ENGL 2332
					6, 8		ENGL 2361
					6, 8		ENGL 2362
					6		ENGL (2370)
					6, 8		FREN 2211
					6, 8		FREN 2212
					5, 8		HIST 1110
					3, 5, 8		HIST 1111
					3, 5, 8		HIST 1112
					3, 5, 8		HIST 1113
					3, 5, 8		HIST 1114
					3, 5, 7		HIST 2211
					3, 5, 7		HIST 2212
					3, 5, 7		HIST 2213
					2, 6		HUM 1101
					6, 8		HUM (1102)
					6, 8		HUM 1105
					2, 6, 7		HUM 1110
					6, 8		HUM (1115)
					6, 8		HUM 1120
					6, 8		HUM 1121
					6, 7		HUM 1132
					6		HUM 1133
					6, 8		HUM 1134
					2, 6		HUM 2210
					6, 8		HUM 2230
					2, 6, 8		HUM 2236
					6, 8		HUM 2281
					6, 8		HUM 2291
					6, 8		HUM 2292
					5, 7		HUM 2500
					9		JOUR 1131
					4		MATH (1010)
					2, 4		MATH 1100
					2, 4		MATH 1114
					2, 4		MATH 1115
					2, 4		MATH 1120
					2, 4		MATH 1134
					2, 4		MATH 1135
					2, 4		MATH 1213
					2, 4		MATH 2200
							Macroeconomics
							Macroeconomics
							Microeconomics
							Composition & Lit II
							Research Paper
							College Writing I
							College Writing II
							Technical Writing
							Creative Writing - Poetry
							Creative Writing - Fiction
							Environmental Literature
							Intro to Lit: Poetry
							Poetry: World Voices
							Choices in Short Stories
							Intro to Lit: Short Stories
							Intro to Lit: Drama
							Intro to Lit: The Novel
							Intro to Lit: Short Prose
							Nature Writers
							American Ethic Literature
							Intro to Mythology
							Intro to Shakespeare
							Women in Literature
							Individual Authors:
							American Literature I
							American Literature II
							British Literature I
							British Literature II
							Children's Literature
							Intermediate French I
							Intermediate French II
							Western Civilization Ancient-1400
							West Civilization 1400's-1600's
							West Civilization 1600's-1800's
							Europe: 1900's-1939
							Europe: 1939-present
							American History: Colonial Period
							American History: 19 th Century
							American History: 20 th Century
							Intro to Humanities
							International Film
							Religion in Humanities
							Native American Culture
							World Culture
							Culture of Italy I
							Culture of Italy II
							Women in Humanities
							Men in Humanities
							Global Perspectives for Women
							The Study of Film
							World Cinema
							Technology in the Humanities
							Culture of the British Isles
							Field Experience: Europe
							Field Experience: Travel Abroad
							Honors Colloquy
							Mass Communications
							Intro: College Algebra
							World of Mathematics
							College Algebra
							Functions/Trigonometry
							Applied Calculus/Linear Algebra
							Analytic Geometry and Calculus I
							Analytic Geometry and Calculus I
							Introduction to Statistics
							Principles of Arithmetic

Accounting
AAS 72 Credits
D M W

This major provides the knowledge and skills necessary to examine, analyze, interpret, and correct accounting data for the purpose of financial statements, budgets, forecast accounting reports, payroll reports, and state and federal income tax returns. Computerized accounting concepts are included in this area of study.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1101	Payroll	3
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
ACCT1124	Spreadsheet Applications	3
ACCT2201	Financial Accounting I Lab	1
ACCT2202	Financial Accounting II Lab	1
ACCT2203	Managerial Accounting Lab	1
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2213	Managerial Accounting	3
ACCT2215	Computerized Acct App I	3
ACCT2216	Computerized Acct App II	3
ACCT2255	Income Tax-Individual	3
ACCT2620	Intermediate Accounting I	4
ACCT2622	Intermediate Accounting II	4
ACCT2630	Fund/Nonprofit Accounting	3
CPTR1104	Intro to Computer Tech	3
ECON2210	Macroeconomics	3
ENGL1101	College Writing I	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9
	Free Electives	7

Accounting
AS 64 Credits
F

The A.S. in Accounting is a two-year degree in accounting designed both for the student who wishes to enter the workforce upon graduation and the student who plans to transfer to a four-year college or university. The program offers a balance of general education courses and courses specific to preparing the student for a career in accounting.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1108	Business Math/Calculators	3
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2213	Managerial Accounting	3
ACCT2215	Computerized Acct App I	3
ACCT2255	Income Tax-Individual	3
BUS1120	Spreadsheet & Database Concepts	3
BUS1146	Personal Finance	3
BUS2150	Legal Environ of Business	3
BUS2204	Prin of Management	3
BUS2206	Prin of Marketing	3
ECON2210	Macroeconomics	3
ECON2222	Microeconomics	3
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SOC1111	Intro to Sociology	3
	MN Transfer Electives	12
	Free Elective	1

Recommended Electives:

ACCT1012	Prin of Bookkeeping	3
ACCT2295	Certified Bookkeeper Review Course	3
BUS1143	Office Procedures	3

Accounting
Diploma 64 Credits
D M W

This major provides the knowledge and skills necessary to examine, analyze, interpret, and correct accounting data for the purpose of financial statements, budgets, forecast accounting reports, payroll reports, and state and federal income tax returns. Computerized accounting concepts are included in this area of study.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1101	Payroll	3
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
ACCT1124	Spreadsheet Applications	3
ACCT2201	Financial Accounting I Lab	1
ACCT2202	Financial Accounting II Lab	1
ACCT2203	Managerial Accounting Lab	1
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2213	Managerial Accounting	3
ACCT2215	Computerized Acct App I	3
ACCT2216	Computerized Acct App II	3
ACCT2255	Income Tax-Individual	3
ACCT2620	Intermediate Accounting I	4
ACCT2622	Intermediate Accounting II	4
ACCT2630	Fund/Nonprofit Accounting	3
ADMS2124	Computer Technology Information	3
CPTR1104	Intro to Computer Tech	3
GSCO1102	Applied Communications	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
	Restricted Electives	7

Accounting Clerk
Diploma 33 Credits
D M W

This major provides the knowledge and skills necessary to perform routine calculating, journalizing, posting, and verifying duties to maintain accounting records, prepare payroll reports, and state and federal tax returns. Both manual and computerized accounting concepts and applications are included.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1101	Payroll	3
ACCT1108	Business Math/Calculators	3
ACCT1124	Spreadsheet Applications	3
ACCT2201	Financial Accounting I Lab	1
ACCT2202	Financial Accounting II Lab	1
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2215	Computerized Acct App I	3
ACCT2255	Income Tax-Individual	3
CPTR1104	Intro to Computer Tech	3
GSCO1102	Applied Communications	3
	Restricted Electives	4

Administrative Assistant
AAS 72 Credits
M W

This major is designed to prepare students for employment as administrative secretaries or assistants. Administrative assistants' responsibilities may include processing incoming and outgoing mail, communicating through electronic mail, scheduling, keyboarding documents and forms, transcribing business documents and forms, transcribing business documents from machine dictation, filing and retrieving records, handling telephone calls, and making travel arrangements. In addition, they may be given more

challenging tasks such as composing and dictating letters, recording meeting minutes, collecting data and performing research, generating reports, maintaining budgets and other bookkeeping applications, and applying supervisory responsibilities. Students in this major will also perform advanced microcomputer applications that will include file transfer options; malicious program items; management techniques; networking and security; data communications; and software evaluation, selection, and installation procedures. This major requires strong verbal, listening, and writing skills; interpersonal and supervisory skills; ability to keep confidences; knowledge of records management; and knowledge of a variety of software application programs and integrated electronic office systems.

GSWS1102	Contemporary Career Search	1
INTD1112	Web Graphic Design	3
MKTG1110	Customer Service	3
MKTG1120	Supervisory Leadership	3
ENGL1101	College Writing I	3
OR		
ENGL1201	Technical Writing	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	6
	Restricted Electives	9

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ADMS1100	Keyboarding I	3
ADMS1102	Keyboarding II	3
ADMS1110	Word Processing	3
ADMS1112	Desktop Publishing	3
ADMS1116	Business Communications I	3
ADMS1120	Office Procedures	3
ADMS1128	Records/Database Mgmt	3
ADMS1130	Intermediate Software Skills	3
ADMS2124	Computer Technology Information	3
ADMS2202	Advanced Word Processing	3
ADMS2212	Integrated Software Applications	3
ADMS2216	Business Communications II	3
ADMS2222	Adv Desktop Publishing	3
ADMS2240	Internship	3
CPTR1104	Intro to Computer Tech	3
GSSI1104	Human Relations	3
MKTG1120	Supervisory Leadership	3
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
SOC1111	Intro to Sociology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	6

Administrative Support Diploma 34 Credits D M W WE

This major is designed to prepare students for performing a full range of office tasks. The administrative support person's responsibilities include using various software applications to perform document processing and file management tasks. This major requires strong skills in communications, telephone technique, computer usage, and human relations. Other tasks will include communicating using electronic mail, doing electronic scheduling, keying and creating business documents, using manual and electronic filing for retrieving records, handling telephone communications, and making travel arrangements, and processing incoming and outgoing mail.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ADMS1100	Keyboarding I	3
ADMS1102	Keyboarding II	3
ADMS1112	Desktop Publishing	3
ADMS1116	Business Communications I	3
ADMS1120	Office Procedures	3
ADMS1128	Records/Database Mgmt	3
ADMS1130	Intermediate Software Skills	3
ADMS2216	Business Communications II	3
CPTR1104	Intro to Computer Tech	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1

Administrative Management Technology AAS 66 Credits D

The Administrative Management Technology program is designed for students who after completion of this degree may seek employment as office managers, office analysts, office assistants, customer service managers and other business related employment. In addition, graduates may continue their study in a baccalaureate degree program in careers such as computers, operations management or business administration. This degree is also meant for students who wish to enhance their computer skills in today's business world via international industry certifications to help further their career. Students should consult an advisor/counselor for transfer opportunities to various Minnesota colleges.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
ADMS1100	Keyboarding I	3
<u>Required:</u>		
ACCT1012	Prin of Bookkeeping	3
ACCT1124	Spreadsheet Applications	3
ADMS1110	Word Processing	3
ADMS1112	Desktop Publishing	3
ADMS1116	Business Communications I	3
ADMS2124	Computer Technology Information	3
ADMT1172	Microsoft Office Access MOS Certification	2
ADMT1174	Microsoft Office PowerPoint MOS Certification	1
ADMT2230	Administrative Project Management	2
BUS1141	Intro to Business	3
CPTR1104	Intro to Computer Tech	3

Administrative Support Bookkeeping Emphasis Diploma 49 Credits D M W

This emphasis is designed to prepare students to perform bookkeeping and payroll procedures in addition to the job responsibilities that are required for administrative support.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ACCT1101	Payroll	3
ACCT1124	Spreadsheet Applications	3
ACCT2201	Financial Accounting I Lab	1
ACCT2211	Financial Accounting I	3
ACCT2215	Computerized Acct App I	3
ADMS1100	Keyboarding I	3
ADMS1102	Keyboarding II	3
ADMS1112	Desktop Publishing	3
ADMS1116	Business Communications I	3
ADMS1120	Office Procedures	3
ADMS1122	Machine Transcription	2
ADMS1128	Records/Database Mgmt	3
CPTR1104	Intro to Computer Tech	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
	Restricted Electives	6

PSCI1113 State and Local Government	3
SPCH1114 Intro to Public Speaking	3
MN Transfer Electives	9
Restricted Electives	6

Administrative Support Microcomputer Emphasis Diploma 49 Credits D M W

This emphasis prepares students to produce creative brochures, newsletters, announcements, and technical manuals using various professional publishing and word processing software programs in addition to the job responsibilities that are required for administrative support.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ACCT1124	Spreadsheet Applications	3
ADMS1100	Keyboarding I	3
ADMS1102	Keyboarding II	3
ADMS1110	Word Processing	3
ADMS1112	Desktop Publishing	3
ADMS1116	Business Communications I	3
ADMS1120	Office Procedures	3
ADMS1122	Machine Transcription	2
ADMS1128	Records/Database Mgmt	3
ADMS2124	Computer Technology Information	3
ADMS2212	Integrated Software Applications	3
CPTR1104	Intro to Computer Tech	3
CPTR1106	Microcomputer Databases	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
	Restricted Electives	4

Architectural Technology AAS 72 Credits D

Men and women completing this program will be prepared to obtain employment with architectural and engineering firms, contractors, and a variety of manufacturing and distributing companies related to the construction industry. Computer aided drafting is an important tool for the construction industry and the design professions and is an important part of the Architectural Technology program. This program teaches students the principles of residential and commercial building technology as well as the drafting skills to apply them. Students will also be enrolled in general education courses selected to complement their technical education. This degree can allow students to continue their education in a number of baccalaureate programs at four-year institutions.

Course #	Course Title	Crds
ARCH1112	Architectural Desktop	4
ARCH1126	Residential Project I	3
ARCH2226	Residential Project II	4
ARCH2230	Mech/Elec Integration	2
ARCH2236	Presentation	2
ARCH2244	Commercial Projects	4
ARCH2250	Project Administration	2
BLDG1114	Blueprint Reading I	2
BLDG1120	Construction Estimating I	2
BLDG1122	Construction Estimating II	2
CADD1102	Fundamentals of CADD	4
CIVL1102	Survey I: Fundamentals	2
CONM1124	Building Systems	3
CONM2206	Building Codes	2
CPTR1100	Fund Computer Concepts	1
ENGR1100	Project Management	1
ENGR1118	Engineering Applications	3
ENGR1126	Engineering Graphics	3
ENGR1132	Office Systems & Equip	2
ENGL1101	College Writing I	3

Auto Body Collision Technology AAS 72 Credits D

The Auto Body Technician will repair and replace damaged portions of automobile bodies and frames. They straighten bent frames and/or unibody cars, remove and repair dents in body panels and fenders, and weld breaks in body metals. They install window glass and windshields. Technicians will also sand and mask repair areas, perform drive train component replacements, wheel alignments, and perform some mechanical and electrical repairs.

Students entering this program should have good mechanical aptitude, good communication skills and the ability to comprehend service literature. Graduates of this program will find opportunities for employment as body repair technicians, and may become estimators, service sales persons, service managers, or parts managers. Some may move into supervisory positions, start their own repair shops, or become insurance company damage appraisers.

Course #	Course Title	Crds
ABCT1100	Intro to Auto Body	2
ABCT1102	Auto Body Off Car Repair	4
ABCT1104	Auto Body Lab I	3
ABCT1106	Intro to Refinishing	2
ABCT1110	Panel Replacement	2
ABCT1112	Auto Body Refinishing	4
ABCT1114	Auto Body Lab II	4
ABCT1116	Glass and Trim	2
ABCT1118	Basic Electrical	2
ABCT2202	Unibody/Frame Alignment	5
ABCT2206	Mechanical Components I	2
ABCT2208	Major Collision Lab I	3
ABCT2210	Collision Damage Repair	5
ABCT2212	Mechanical Components II	2
ABCT2216	Spot Repair & Paint Blending	2
ABCT2222	Auto Body Internship	1
TRNS1118	Welding I	2
TRNS1120	Welding II	1
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
	MN Transfer Electives	11
	Restricted Electives	4

Auto Body Collision Technology Diploma 64 Credits D

The Auto Body Technician will repair and replace damaged portions of automobile bodies and frames. They straighten bent frames and/or unibody cars, remove and repair dents in body panels and fenders, and weld breaks in body metals. They install window glass and windshields. Technicians will also sand and mask repair areas, perform drive train component replacements, wheel alignments, and perform some mechanical and electrical repairs.

Students entering this program should have good mechanical aptitude, good communication skills and the ability to comprehend service literature. Graduates of this program will find opportunities for employment as body repair technicians, and may become estimators, service sales persons, service managers, or parts managers. Some may move into supervisory positions, start their own repair shops, or become insurance company damage appraisers.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ABCT1100	Intro to Auto Body	2
ABCT1102	Auto Body Off Car Repair	4
ABCT1104	Auto Body Lab I	3
ABCT1106	Intro to Refinishing	2
ABCT1110	Panel Replacement	2
ABCT1112	Auto Body Refinishing	4
ABCT1114	Auto Body Lab II	4
ABCT1116	Glass and Trim	2
ABCT1118	Basic Electrical	2
ABCT2202	Unibody/Frame Alignment	5
ABCT2204	Body Shop Operation	3
ABCT2206	Mechanical Components I	2
ABCT2208	Major Collision Lab I	3
ABCT2210	Collision Damage Repair	5
ABCT2212	Mechanical Components II	2
ABCT2216	Spot Repair & Paint Blending	2
ABCT2222	Auto Body Internship	1
CPTR1100	Fund Computer Concepts	1
EDUC1001	College Success Skills	2
GSCI1108	Info Retrieval - 21st Century	1
GSMS1110	First Aid / CPR	1
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
TRNS1118	Welding I	2
TRNS1120	Welding II	1
	Restricted Electives	4

Automotive Service Technology AAS 72 Credits D M

The Automotive Service Technician is a person working in an exciting and rapidly changing industry. Students in this program will receive training in the many service and diagnostic procedures necessary to maintain our nation on wheels. Students are trained in modern laboratories equipped with current service and testing equipment. Students in Automotive Service Technology will have options to choose from diploma and AAS degree programs.

Students entering this program should have good mechanical aptitude, good communication skills and the ability to read and comprehend service literature. Graduates of this program will have a variety of opportunities that will range from drive line technician, driveability technician, alignment and suspension specialist, transmission specialist, service advisors and managers. Opportunities for advancement may include factory and dealer representatives, management, and self-employment.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
AMST1102	Alignment & Suspension I	3
AMST1105	Brakes I	3
AMST1109	Starting & Charging	3
AMST1111	Automotive Electronics	3
AMST1122	Engines I	3
AMST1126	Engines II	3
AMST1132	Drive Trains I	3
AMST2206	Body Elec/Mechanical I	3
AMST2209	Body Elec/Mechanical II	3
AMST2211	Exhaust Analysis Fuel Sys	3
AMST2214	Elec Powertrain Cntrl I	3
AMST2218	Elec Powertrain Cntrl II	3
AMST2220	Ignition Systems	3
AMST2225	Brakes II	3
AMST2233	Auto Transmission I	3
AMST2237	Auto Transmission II	3
AMST2240	Heating Ventilation A/C	3
AMST2292	Internship	1
TRNS1102	Intro to Transportation	2
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9

Automotive Service Technology Diploma 69 Credits D M

The Automotive Service Technician is a person working in an exciting and rapidly changing industry. Students in this program will receive training in the many service and diagnostic procedures necessary to maintain our nation on wheels. Students are trained in modern laboratories equipped with current service and testing equipment. Students in Automotive Service Technology will have options to choose from diploma and AAS degree programs.

Students entering this program should have good mechanical aptitude, good communication skills and the ability to read and comprehend service literature. Graduates of this program will have a variety of opportunities that will range from drive line technician, driveability technician, alignment and suspension specialist, transmission specialist, service advisors and managers. Opportunities for advancement may include factory and dealer representatives, management, and self-employment.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
AMST1102	Alignment & Suspension I	3
AMST1105	Brakes I	3
AMST1109	Starting & Charging	3
AMST1111	Automotive Electronics	3
AMST1122	Engines I	3
AMST1126	Engines II	3
AMST1132	Drive Trains I	3
AMST1136	Drive Trains II	3
AMST2201	Alignment & Suspension II	3
AMST2206	Body Elec/Mechanical I	3
AMST2209	Body Elec/Mechanical II	3
AMST2211	Exhaust Analysis Fuel Sys	3
AMST2214	Elec Powertrain Cntrl I	3
AMST2218	Elec Powertrain Cntrl II	3
AMST2220	Ignition Systems	3
AMST2225	Brakes II	3
AMST2233	Auto Transmission I	3
AMST2237	Auto Transmission II	3
AMST2240	Heating Ventilation A/C	3
AMST2292	Internship	1
CPTR1104	Intro to Computer Tech	3
GSCO1102	Applied Communications	3
GSSI1104	Human Relations	3
TRNS1102	Intro to Transportation	2

Biological Sciences AS 64 Credits F M

This degree is designed for students interested in the various fields of biological sciences such as cell biology, bioengineering, environmental science, fish and wildlife management, forestry, genetics, and microbiology. Students majoring in biological sciences may also be interested in the following program areas: biochemistry, chemistry, pre-chiropractic, pre-dentistry, pre-medicine, pre-medical technology, pre-optometry, pre-pharmacy, and pre-veterinary medicine.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
BIOL1111	General Biology I	4
BIOL1112	General Biology II	4
BIOL2240	Genetics	4
CHEM1111	General Inorganic Chemistry I	5
CHEM1112	General Inorganic Chemistry II	5
MATH1114	College Algebra	4
MATH1115	Functions/Trigonometry	4
PHYS1401	College Physics I	4
PHYS1402	College Physics II	4
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3

MN Transfer Electives	14
Humanities/Fine Arts Elective (MNTC Goal Area 6)	3
History/Social/Behavioral Sciences (MNTC Goal Area 5)	3

Recommended Electives:

BIOL2257 Medical Microbiology	3
BIOL2266 Diagnostic Microbiology	5
CHEM2224 Organic Chemistry I	5
CHEM2225 Organic Chemistry II	5
ECON2222 Microeconomics	3
HIST1110 Western Civilization: Ancient-1400	3
HIST1111 Western Civilization: 1400-1600	3
HIST1112 Western Civilization: 1600-1800	3
MATH1120 Applied Calc/Linear Alg	4
MATH1134 Analytical Geometry and Calculus I	5
MATH1135 Analytical Geometry and Calculus II	5
MATH1213 Intro to Statistics	4
PHIL1201 Ethics	3
PSYC1200 General Psychology	3
SOC1111 Intro to Sociology	3
SPCH1114 Intro to Public Speaking	3

**Business Management
AS 64 Credits
F**

The A.S. in Business Management is a two-year degree designed to prepare students pursuing a career in business at the junior level of management. The degree is designed to suit the student who wishes to enter the workforce upon graduation, as well as the student who plans to transfer to a four-year college or university. The program offers a balance of general education courses and courses specific to preparing the student for a career in business management.

Course #	Course Title	Crds
ACCT1108	Business Math/Calculators	3
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2213	Managerial Accounting	3
BUS1120	Spreadsheet & Database Concepts	3
BUS1143	Office Procedures	3
BUS2202	Mgmt Information Sys	3
BUS2204	Prin of Management	3
ECON2210	Macroeconomics	3
ECON2222	Microeconomics	3
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SOC1111	Intro to Sociology	3
	MN Transfer Electives	12
	Free Electives	10

Recommended Electives:

ACCT2215	Computerized Acct App I	3
ACCT2255	Income Tax-Individual	3
BUS1146	Personal Finance	3
CSCI1155	Cpt Utilization/Business & Society	3
CSCI1205	Network Fundamentals	4

**Business Management/Ownership
Diploma 34 Credits
D**

The primary purpose of this program is to prepare men and women for management or ownership of a small business. The program will not only prepare the student for business management, but also enable them to better manage their own personal affairs. It will especially help those individuals who may have some of the skills and competencies needed, but lack the organization and understanding of business management which is necessary to be successful. Upon

completing the classroom work, students will be assisted in finding jobs with business firms offering employment suited to their individual career objectives or in starting their own business. This program requires a genuine interest in people, a strong desire to be your own boss and a willingness to expend above average time and energy toward goal accomplishment.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
BMGT1102	Prep Small Bus Mgmt/Ownership	3
BMGT1104	Research Methods	3
BMGT1108	Organizational Mgmt	3
BMGT1110	Financ Statement Analysis	2
BMGT1112	Business Plan Dvlpmnt	2
CPTR1104	Intro to Computer Tech	3
MKTG1100	Prin of Marketing	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG2290	Supervised Occup Exp I	3
	Restricted Electives	3

**Business Office Systems Specialist
AAS 72 Credits
W**

A student graduating from this program has the skills and knowledge to run a small office. They demonstrate ability implementing and performing standard accounting procedures and demonstrate designing, configuring and maintaining a computer network infrastructure capable of supporting the applications, data, and security policies.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3

Required:

ACCT1101	Payroll	3
ACCT1120	Business Law	3
ACCT1124	Spreadsheet Applications	3
ACCT2201	Financial Accounting I Lab	1
ACCT2202	Financial Accounting II Lab	1
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ACCT2216	Computerized Acct App II	3
ACCT2620	Intermediate Accounting I	4
ACCT2622	Intermediate Accounting II	4
CPTR1106	Microcomputer Databases	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1148	Microcomputer Operating Sys	3
CPTR2236	Network Security	3
CPTR2252	Microcomputer Systems Project	3
CPTR2272	Network Operating Systems	3
ECON2210	Macroeconomics	3
ENGL1101	College Writing I	3
MATH1102	Finite Math	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	6
	Restricted Electives	5

**Cancer Registry Management
Certificate 30 Credits
DE**

Cancer Registrars are important members of a cancer treatment center team, working closely with oncology physicians, nurses, researchers, and health care planners. They collect and organize cancer patient information, such as the type of cancer, location of the cancer within the body, the extent or spread of the disease, and the treatments received by the patient. The Cancer Registrars forward information to

a national database and it is used for the research, prevention and controlling of cancer.

If the medical background courses have been completed prior to entering the program, the transfer-in of those courses will be determined by College enrollment personnel. Generally speaking, only classes from accredited college institutions can be considered.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical &/or field experience courses. After completing the required online course and shortly before graduation, the student participates in a structured and hands-on supervised learning experience in a cancer registry.

According to National Cancer Registrars' Association (NCRA) guidelines, all medical background courses, such as medical terminology, pathophysiology, anatomy and physiology, and pharmacology must be completed prior to taking the program courses, such as CRMP 2202 Cancer Registry Structure and Management.

A certificate is awarded after successful completion of the specialized program of study. After successfully completing the program, the graduate may make application to the National Cancer Registrars Association to write an exam to obtain the credentials of a Certified Tumor Registry (CTR).

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
CRMP2202	CR Structure & Mgmt	3
CRMP2203	Cancer Reg Operations	3
CRMP2204	Oncology Coding & Stag	3
CRMP2205	Abstracting Methods	2
CRMP2206	Follow-up Methods	2
CRMP2208	Clinical Experience	4
GSMS1104	Intro to Anatomy & Physiology	3
HLTH1106	Medical Terminology	2
HLTH2002	Basic Pharmacology	2
HLTH2208	Pathophysiology	3

Carpentry AAS 72 Credits M W

The Carpentry program prepares the student with skills and knowledge for a career in residential carpentry. The program coursework will provide the student with a mix of technical education, general studies, theory and hands-on learning experiences. The student in this program progresses from basic skills to those required of a carpenter. General areas of study include building codes, blueprint reading and sketching, estimating, site layout, concrete, framing, interior and exterior finish, cabinet making and installation, and decks. The Carpentry AAS program provides graduates with skills required of a carpenter in a variety of building construction settings common in both rural and metropolitan areas.

Course #	Course Title	Crds
BLDG1114	Blueprint Reading I	2
BLDG1120	Construction Estimating I	2
CARP1102	Prin of Framing	3
CARP1104	Framing I	6
CARP1108	Interior Finish I	4
CARP1110	Intro to Cabinet Building	3
CARP1112	Exterior Finish I	3
CARP2106	Footings & Foundations	2
CARP2202	Prin of Framing II	3
CARP2206	Adv Framing Applications	6
CARP2208	Exterior Finish II	3
CARP2210	Interior/Exterior Finish Prin	3
CARP2212	Interior Finish II	4

CARP2220	Carpentry Internship	3
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	8
	Restricted Electives	5

Carpentry Diploma 64 Credits M W

The Carpentry program prepares the student with skills and knowledge for a career in residential carpentry. The program coursework will provide the student with a mix of technical and general education, theory and hands-on learning experiences. The student in this program progresses from basic skills to those required of a carpenter. General areas of study include building codes, blueprint reading and sketching, estimating, site layout, concrete, framing, interior and exterior finish, cabinet making and installation, and decks. The Carpentry diploma program provides graduates with skills required of a carpenter in a variety of building construction settings common in both rural and metropolitan areas.

Course #	Course Title	Crds
BLDG1114	Blueprint Reading I	2
BLDG1120	Construction Estimating I	2
CARP1102	Prin of Framing	3
CARP1104	Framing I	6
CARP1108	Interior Finish I	4
CARP1110	Intro to Cabinet Building	3
CARP1112	Exterior Finish I	3
CARP2106	Footings & Foundations	2
CARP2202	Prin of Framing II	3
CARP2204	Concrete Technology	2
CARP2206	Adv Framing Applications	6
CARP2208	Exterior Finish II	3
CARP2210	Interior/Exterior Finish Prin	3
CARP2212	Interior Finish II	4
CARP2220	Carpentry Internship	3
CPTR1104	Intro to Computer Tech	3
GSCL1108	Info Retrieval - 21st Century	1
GSMS1000	Technical Mathematics	3
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1
	Restricted Electives	6

Carpentry - Residential Diploma 34 Credits WE

This program prepares the student with skills and knowledge for a career in residential carpentry. The program coursework will provide the student with a mix of technical education, general studies, theory and hands-on learning experiences. The student progresses from basic skills to those required of a carpenter. General areas of study include building codes, blueprint reading, estimating, site layout, concrete, framing, interior and exterior finish, cabinet construction and installation, and decks. The Residential Carpentry diploma program provides graduates with skills required of a

carpenter in a variety of building construction settings common in both rural and metropolitan areas.

Course #	Course Title	Crds
BLDG1114	Blueprint Reading I	2
BLDG1120	Construction Estimating I	2
CARP1102	Prin of Framing	3
CARP1104	Framing I	6
CARP1108	Interior Finish I	4
CARP1110	Intro to Cabinet Building	3
CARP1112	Exterior Finish I	3
CARP2106	Footings & Foundations	2
CARP2214	Exterior Siding	2
CARP2216	Deck Construction	2
CARP2218	Soffits, Gutters, Gables	2
	General Studies Electives	3

Carpentry Assisting Certificate 30 Credits M W

The Carpentry program prepares the student with skills and knowledge for a career in residential carpentry. The program coursework will provide the student with a mix of technical education, general studies, theory and hands-on learning experiences. The student in this program progresses from basic skills to those required of a carpenter. General areas of study include building codes, blueprint reading and sketching, estimating, site layout, concrete, framing, interior and exterior finish, cabinet making and installation, and decks. The Carpentry certificate program provides graduates with skills required of a carpenter in a variety of building construction settings common in both rural and metropolitan areas.

Course #	Course Title	Crds
CARP1102	Prin of Framing	3
CARP1104	Framing I	6
CARP1108	Interior Finish I	4
CARP1110	Intro to Cabinet Building	3
CARP1112	Exterior Finish I	3
CARP2106	Footings & Foundations	2
CARP2220	Carpentry Internship	3
GSMS1000	Technical Mathematics	3
GSMS1110	First Aid / CPR	1
	Restricted Electives	2

Child Care and Education - Level II Certificate 25 Credits W CC

This certificate includes coursework in child development, guidance, children with special needs, as well as caregiving and teaching.

Course #	Course Title	Crds
CDEV1105	Development/Guidance	3
CDEV1107	Intro to Early Educ	3
CDEV2200	Integrating Play	3
CDEV2229	Imaginative Learning	3
CDEV2236	Occupational Experience	1
CDEV2244	Parent & Professional Relations	3
CDEV2250	Sign Language	1
CPTR1104	Intro to Computer Tech	3
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1
	Restricted Electives	3

Cisco Networking Certificate 12 Credits D W CC DE

This 12-credit certificate will prepare students to take the Cisco Certified Network Associate (CCNA) certification and also the CompTIA Network+ certification. The course work includes Cisco semesters 1-4. Skill development covers LAN/WAN networking technology and concepts, networking math, networking media, router configuration, switching, VLANs, routing protocols and WAN links and services. The instructor will evaluate computer skills necessary to enter this certificate program. Students should have good reading and study skills, basic computer literacy and awareness of the Internet. Prior experience with computer hardware, binary math, and basic electronics desired but not required. Background in cabling is beneficial. Upon completion of this certificate the student will be able to take the Cisco CCNA and CompTIA Network+ certification exams offered through a VUE or Prometric testing center.

Course #	Course Title	Crds
CPTR1108	CISCO 1	3
CPTR1118	CISCO 2	3
CPTR2200	CISCO 3	3
CPTR2208	CISCO 4	3

Civil Engineering Technology AAS 72 Credits D

Men and women completing the Civil Engineering Technology program are prepared for employment in the civil engineering fields. Civil Engineering Technicians plan, design, monitor construction, and maintain public or private works systems with the collaboration and direction of engineers. They will gather preliminary data, plan, budget, survey, design, prepare construction documents, and administer contracts to provide safe and convenient facilities that include highways, bridges, airports, structures, water treatment and distribution systems, and waste water collection and treatment systems. Opportunities are available with state, county, city transportation departments, as well as consulting engineering firms. Students will learn graphic communication skills, advanced surveying techniques, and a variety of skills related to engineering technologies. Students will also be enrolled in general education classes selected to build a foundation for their technical courses. This AAS degree can allow students to continue their education in a number of baccalaureate programs at four-year institutions.

Course #	Course Title	Crds
BLDG1114	Blueprint Reading I	2
CADD1102	Fundamentals of CADD	4
CIVL1102	Survey I: Fundamentals	2
CIVL1119	Survey II: Land Surveys	3
CIVL1138	CADD II: Plan Layout	3
CIVL2209	Construction Inspection	3
CIVL2210	Road Design	3
CIVL2230	Civil Engineering Tech Intern	3
CIVL2232	Survey III: Legal Surveys	3
CIVL2234	Utility Design	3
CIVL2238	CADD III: Project Design	3
CIVL2240	Intro to GIS	3
CONM2204	Materials Testing	3
CPTR1100	Fund Computer Concepts	1
ENGR1100	Project Management	1
ENGR1118	Engineering Applications	3
ENGR1126	Engineering Graphics	3
ENGR1132	Office Systems & Equip	2
PSCI1113	State and Local Government	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	12
	Restricted Electives	6

Computer & Network Technology
AAS 66 Credits
F M W CC DE

This major provides the skills to support and maintain computer network systems in a business environment. Computer skill development covers the hardware and software systems of current computer technology. Networking skills include switching, routing, server operating system, directory services, and security. Application software skills include software selection, customizing, training, and support. Many classes are built around specific industry certifications. Students are encouraged to complete the requirement for vendor certification.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Pre/Corequisites:</u>		
CPTR1104	Intro to Computer Tech	3
MATH0090	Introductory Algebra	3
<u>Required:</u>		
CPTR1106	Microcomputer Databases	3
CPTR1108	CISCO 1	3
CPTR1110	Visual Basic Program I	3
CPTR1118	CISCO 2	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1148	Microcomputer Operating Sys	3
CPTR2200	CISCO 3	3
CPTR2208	CISCO 4	3
CPTR2236	Network Security	3
CPTR2252	Microcomputer Systems Project	3
CPTR2272	Network Operating Systems	3
CPTR2282	E-mail Administration	3
GSWS1102	Contemporary Career Search	1
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	5
	Restricted Electives	9

Computer & Network Technology
Certificate 30 Credits
W DE

This major provides the support skills needed to assist computer users in a small business environment and to install and monitor local networks. Skill development covers introduction to microcomputer and data communications technology, network operating systems, and the related software applications. Hardware skills include working concepts of selection, configuration, and operation of microcomputer central processing units, peripheral equipment, and data communications equipment. Software skills include the process of and knowledge development of software selection, customizing, upgrading, training, and user support.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
CPTR1106	Microcomputer Databases	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1142	Network Essentials	3
OR		
CPTR1108	CISCO 1	3
CPTR1148	Microcomputer Operating Sys	3
CPTR2272	Network Operating Systems	3
CTEC1106	Helpdesk Operations	3
OR		
ADMS2124	Computer Technology Information	3

GSSI1104	Human Relations	3
SPCH1114	Intro to Public Speaking	3

Computer & Network Technology
System Administration Emphasis
AAS 66 Credits
F

Industry job opportunities are increasing working as a system administrator supporting Microsoft servers and administering to directory services. The proposed emphasis area will include coursework to increase student's exposure to administration of a server running directory services. The curriculum will allow for currency in teaching to the latest in operating system products and services.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Pre/Corequisites:</u>		
CSCI1155	Cpt Utilization/Business & Society	3
MATH0090	Introductory Algebra	3
<u>Required:</u>		
CPTR1106	Microcomputer Databases	3
OR		
BUS1120	Spreadsheet & Database Concepts	3
CPTR1108	CISCO 1	3
OR		
CSCI1205	Network Fundamentals	4
CPTR1110	Visual Basic Program I	3
OR		
CSCI1120	Computer Programming Basic	3
CPTR1118	CISCO 2	3
OR		
CSCI1206	Router Theory/Technology	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
OR		
CSCI1121	Computer Science I	4
CPTR1148	Microcomputer Operating Sys	3
CPTR1150	Adv Microcomputer OS	3
OR		
CSEC2204	Managing Directory Services	3
CPTR1170	Web Engineering I	3
OR		
INTD1108	HTML	3
CPTR2236	Network Security	3
OR		
CSEC1110	Fundamentals of IT Security	3
CPTR2252	Microcomputer Systems Project	3
OR		
CPTR2294	Internship	3
CPTR2264	Designing Directory Services	3
CPTR2272	Network Operating Systems	3
CPTR2274	Network Administration	3
CPTR2280	WAN Administration	3
CPTR2282	E-mail Administration	3
GSWS1102	Contemporary Career Search	1
OR		
EDUC1112	Job Search Skills	1
ENGL1101	College Writing I	3
ENGL1220	Professional & Technical Writing	3
PHIL1201	Ethics	3
SPCH1114	Intro to Public Speaking	3

OR		
SPCH1112	Small Group Communication	3
	MN Transfer Electives	5

Restricted Electives 9

Computer Help Desk Technician AAS 68 Credits D DE

A Computer Help Desk Technician interacts with individuals in business, industry, education, and government by providing technical solutions to customer critical problems related to software applications and relevant hardware. This is accomplished through problem analysis using phone service support, direct client service, and a variety of electronic means to achieve high level customer satisfaction and to accomplish the goals of the organization.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
CPTR1106	Microcomputer Databases	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1142	Network Essentials	3
OR		
CPTR1108	CISCO 1	3
CPTR1148	Microcomputer Operating Sys	3
CPTR2272	Network Operating Systems	3
CSEC1102	Careers in Information Systems	1
CSEC1110	Fundamentals of IT Security	3
OR		
CPTR2236	Network Security	3
CTEC1104	Technical Research	3
CTEC1106	Helpdesk Operations	3
CTEC2204	Adv Technical Support	3
GSWS1102	Contemporary Career Search	1
INTD1110	Intro to Web Programming	3
OR		
INTD1108	HTML	3
INTD1112	Web Graphic Design	3
ENGL1101	College Writing I	3
PHIL1201	Ethics	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9
	Restricted Electives	9

Computer Help Desk Technician Diploma 34 Credits D

A Computer Help Desk Technician interacts with individuals in business, industry, education, and government by providing technical solutions to customer critical problems related to software applications and relevant hardware. This is accomplished through problem analysis using phone service support, direct client service, and a variety of electronic means to achieve high level customer satisfaction and to accomplish the goals of the organization.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
CPTR1122	Microcomputer Maintenance	3
CPTR1148	Microcomputer Operating Sys	3
CTEC1102	Technology & Organization	3
CTEC1104	Technical Research	3
CTEC1106	Helpdesk Operations	3
CTEC2204	Adv Technical Support	3
INTD2230	Emerg Tech-Resrch & Feasibility	1
	General Studies Electives	3

Computer Information Systems Diploma 66 Credits F M

The Computer Information Systems Diploma prepares students to enter the workforce in a variety of computer industry positions upon graduation. Students may graduate from the program with job titles such as:

- Database programmer, database administrator, database manager, records manager;
- Systems administrator, network administrator, network specialist;
- Technical writer, documentation specialist;
- Technical support specialist, help desk specialist;
- Programmer, applications programmer, programmer/analyst, information systems developer, software tester;
- Business process specialist, business automation specialist; and
- Computer sales associate.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
CPTR1106	Microcomputer Databases	3
CPTR1108	CISCO 1	3
CPTR1110	Visual Basic Program I	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1148	Microcomputer Operating Sys	3
CPTR1170	Web Engineering I	3
CPTR2252	Microcomputer Systems Project	3
CPTR2280	WAN Administration	3
	Communications Electives	
	(MNTC Goal Area 1)	3
	Critical Thinking Electives	
	(MNTC Goal Area 2)	3
	MN Transfer Electives	3
	Restricted Electives	27

Computer Network Security AAS 71 Credits D

This program will prepare students to enter the high-demand field of information technology networking and security. With the increase of viruses, spyware/adware and hacking incidents, companies need professionals skilled in protecting data and equipment from internal and external security threats. Students gain hands-on experience in LAN and WAN technologies utilizing current hardware and software. Emphasis is placed on identifying and implementing appropriate security policies and procedures that meet the unique and dynamic needs of information systems in businesses of various types and sizes.

Because new information security threats continually stimulate demand for workers in this specialized field, job growth is expected to climb at a rate faster than average as compared to other occupations. The computer networking and security skills students acquire in this program help graduates obtain a rewarding career in this highly challenging field.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3
MATH0090	Introductory Algebra	3
<u>Required:</u>		
CPTR1108	CISCO 1	3
CPTR1118	CISCO 2	3
CPTR1122	Microcomputer Maintenance	3

CPTR2272 Network Operating Systems	3	
CPTR2282 E-mail Administration	3	
CSEC1102 Careers in Information Systems	1	
CSEC1110 Fundamentals of IT Security	3	
CSEC2202 Introduction to Wireless Networking	3	
CSEC2204 Managing Directory Services	3	
CSEC2210 Security Breaches & Countermeasures	3	3
CSEC2212 Web Security	3	
CSEC2216 Advanced Routing	4	
CSEC2218 Disaster Recovery	2	
CSEC2222 Network Security Design	3	
CSEC2228 Network Defense	3	
CSEC2230 Computer Forensics	3	
GSWS1102 Contemporary Career Search		1
INTD1104 Systems Administration	3	
ENGL1101 College Writing I	3	
PHIL1201 Ethics	3	
PSYC1200 General Psychology	3	
SPCH1114 Intro to Public Speaking	3	
MN Transfer Electives	6	
Restricted Electives	3	

**Computer Programming
AAS 70 Credits
M DE**

This program provides the programming skills needed in computer application development, database management, computer systems, operations and data communications. Students learn to design, write, code, document, and implement computer programs for various computer platforms. They learn at least one minicomputer operating system, one command level language, one database management system, and programming languages.

The program prepares students to design and develop computer hardware/software systems as well as design information management systems. It includes the study of languages, software design, science, and information flow and processing. Students study the design of mathematical and simulations models, and large scale programs used for processing and retrieving information.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Pre/Corequisite:</u>		
CPTR1104	Intro to Computer Tech	3
<u>Required:</u>		
CPTR1106	Microcomputer Databases	3
CPTR1110	Visual Basic Program I	3
CPTR1112	Visual Basic Program II	3
CPTR1114	COBOL Programming I	3
CPTR1128	RPG/OS400 I	4
CPTR1138	Information Systems	3
CPTR1166	Word Processing and Spreadsheets	4
CPTR1170	Web Engineering I	3
CPTR2220	COBOL Programming II	3
CPTR2228	RPG/OS400 II	4
CPTR2230	Struc Query Language	3
CPTR2242	Java Programming	3
CPTR2252	Microcomputer Systems Project	3
GSWS1102	Contemporary Career Search	1
ENGL1101	College Writing I	3
SPCH1114	Intro to Public Speaking	3
	Math/Logical Reasoning Elective (MNTC Goal Area 4)	3
	MN Transfer Electives	9
	Restricted Electives	9

**Computer Support Essentials
Certificate 15 Credits
D DE**

This major provides the support skills needed to assist computer users in a business environment and to install and administer local and wide area networks. Skill development covers microcomputer and data communications technology, network operating systems, and the related software applications. Hardware skills include selection, configuration, and operation of microcomputer central processing units, peripheral equipment, and data communications equipment. Software skills include software selection, customizing, upgrading, training, and user support. Upon completion of many of the courses the student will be able to take the Microsoft certification course.

A certificate is awarded after successful completion of the specialized program of study. Although the certificate is not designed for transfer, most certificate courses also apply toward the Computer and Network Technology AAS degree offered by the college.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
CPTR1122	Microcomputer Maintenance	3
CPTR1138	Information Systems	3
CPTR1142	Network Essentials	3
CTEC1106	Helpdesk Operations	3

**Computer Systems Electronics
AAS 72 Credits
W**

The Electronics Technology program provides the student with the technical knowledge and practical experience that is necessary for entry into a wide range of electronic specialty areas. Students entering this program should have good math, communications, and problem solving skills. In addition, this program requires mechanical ability and hand-eye coordination.

The first year electronics core is designed to prepare the student with a strong theoretical foundation in the various aspects of the electronics industry. Students learn to test, develop, maintain, troubleshoot, and repair electronics components, circuits, equipment, and systems.

The second year student may then choose to continue his/her training in one, or more, of the following electronics technology options: general electronics, computer systems electronics, electronic communications, or industrial electronics. In addition, the student may decide to pursue technical training in the electronics related fields of biomedical equipment technology, radiology equipment service, or telecommunications engineering.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1110	Visual Basic Program I	3
CPTR1122	Microcomputer Maintenance	3
CPTR1140	Network Essentials	2
ELTR1102	Circuit Analysis I	4
ELTR1104	Circuit Analysis II	3
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1154	Semiconductors II	3
ELTR1160	Electronic Assembly Tech	2
ELTR1180	Communication Systems I	3
ELTR2202	Semiconductors III	3
ELTR2208	Microprocessors	3
ELTR2212	Microcomputer Sys Program	3
ELTR2272	Adv Lab Project II	2
TECH1104	Data Communications	2
ENGL1101	College Writing I	3
PHYS1105	Fundamental Concepts in Physics	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9
	Restricted Electives	9

Computer Systems Electronics Diploma 64 Credits W

The Electronics Technology program provides the student with the technical knowledge and practical experience that is necessary for entry into a wide range of electronic specialty areas. Students entering this program should have good math, communications, and problem solving skills. In addition, this program requires mechanical ability and hand-eye coordination.

The first year electronics core is designed to prepare the student with a strong theoretical foundation in the various aspects of the electronics industry. Students learn to test, develop, maintain, troubleshoot, and repair electronics components, circuits, equipment, and systems.

The second year student may then choose to continue his/her training in one, or more, of the following electronics technology options: general electronics, computer systems electronics, electronic communications, or industrial electronics. In addition, the student may decide to pursue technical training in the electronics related fields of biomedical equipment technology, radiology equipment service, or telecommunications engineering.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
CPTR1110	Visual Basic Program I	3
CPTR1122	Microcomputer Maintenance	3
CPTR1140	Network Essentials	2
ELTR1102	Circuit Analysis I	4
ELTR1104	Circuit Analysis II	3
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1154	Semiconductors II	3
ELTR1160	Electronic Assembly Tech	2
ELTR1180	Communication Systems I	3
ELTR2202	Semiconductors III	3
ELTR2208	Microprocessors	3
ELTR2212	Microcomputer Sys Program	3
ELTR2272	Adv Lab Project II	2
GSMS1002	Technical Trigonometry	2
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
TECH1104	Data Communications	2
	Restricted Electives	10

Construction Electricity Diploma 74 Credits M W

The Construction Electricity diploma program is designed to prepare the student to build, install, maintain and repair electrical systems that provide heat, light, or power for residential, commercial and industrial structures. Technical and general studies courses provide students with a mix of theory and hands-on application in classroom, lab settings and at job sites. This comprehensive program includes maintenance of electrical equipment, wiring methods, blueprint reading, material selection, programmable controllers, and National Electric Code.

Course #	Course Title	Crds
BLDG1102	Construction Safety	1
CONE1102	Intro Elec Circuit Theory	4
CONE1104	Intro to NEC	2
CONE1107	Intro Residential Wiring	3
CONE1108	Electrical Circuit Theory	4
CONE1110	AC/DC Motors/Generators	4
CONE1112	Residential Wiring	3
CONE1114	National Electrical Code	2
CONE1116	Conduit/Tool Applications	2

CONE1118	Electrical Services	3
CONE1120	Electrical Blueprints	3
CONE1122	Intro to Materials	1
CONE1124	Intro Elec Blueprint Read	2
CONE2202	Heating/Cooling Controls	3
CONE2205	Intro Commercial Wiring	3
CONE2206	Intro Motor Control Applic	3
CONE2208	Prog Logic Controllers	2
CONE2211	Electronic Motor Control	3
CONE2212	Commercial Wiring	3
CONE2214	Industrial Wiring	2
CONE2216	Motor Control Application	3
CONE2225	Transformers	2
CONE2248	Code Applications	2
CPTR1104	Intro to Computer Tech	3
GSCI1108	Info Retrieval - 21st Century	1
GSMS1000	Technical Mathematics	3
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1
	Restricted Electives	5

Construction Electricity Industrial Maintenance Emphasis Diploma 72 Credits W

The Construction Electricity diploma program is designed to prepare the student to build, install, maintain and repair electrical systems that provide heat, light, or power for residential, commercial and industrial structures. Technical and general studies courses provide students with a mix of theory and hands on application in classroom, lab settings and at job sites. This comprehensive program includes maintenance of electrical equipment, wiring methods, blueprint reading, material selection, programmable controllers, and National Electric Code.

Course #	Course Title	Crds
BLDG1102	Construction Safety	1
CONE1102	Intro Elec Circuit Theory	4
CONE1104	Intro to NEC	2
CONE1108	Electrical Circuit Theory	4
CONE1110	AC/DC Motors/Generators	4
CONE1114	National Electrical Code	2
CONE1116	Conduit/Tool Applications	2
CONE1120	Electrical Blueprints	3
CONE1122	Intro to Materials	1
CONE1124	Intro Elec Blueprint Read	2
CONE2202	Heating/Cooling Controls	3
CONE2205	Intro Commercial Wiring	3
CONE2206	Intro Motor Control Applic	3
CONE2208	Prog Logic Controllers	2
CONE2211	Electronic Motor Control	3
CONE2212	Commercial Wiring	3
CONE2214	Industrial Wiring	2
CONE2216	Motor Control Application	3
CONE2222	Adv Prog Logic Controllers	3
CONE2225	Transformers	2
CONE2228	Troubleshooting	1
CONE2234	Hydraulics/Pneumatics	2
CONE2236	Industrial Motor Maintenance	2
CONE2247	Advanced Electronics	3
CPTR1104	Intro to Computer Tech	3
GSCI1108	Info Retrieval - 21st Century	1
GSMS1000	Technical Mathematics	3
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1
	Restricted Electives	3

Construction Management AAS 72 Credits M

Construction and related activities comprise the largest segment of our Gross National Product. The construction industry makes an important contribution to society and represents progress and the future.

This AAS program represents a combination of skills in construction, architecture, business and management areas. The skills learned in these areas can enable a graduate to pursue a variety of careers in Construction: Safety, Supervision, Management, Estimating, Inspection or Testing.

Course #	Course Title	Crds
BLDG1114	Blueprint Reading I	2
CADD1102	Fundamentals of CADD	4
CONM1102	Site/Building Layout	2
CONM1108	Principles of Estimating	4
CONM1124	Building Systems	3
CONM2204	Materials Testing	3
CONM2206	Building Codes	2
CONM2208	Construction Bidding	2
CONM2210	Construction Scheduling	3
CONM2212	Site Management	3
CONM2214	Safety Management	3
CONM2216	Computer Estimating	2
CONM2222	Construction Mgmt Internship	2
CPTR1104	Intro to Computer Tech	3
ENGR1100	Project Management	1
ENGR1118	Engineering Applications	3
ENGR1126	Engineering Graphics	3
BIOL1107	Env Science Issues	3
ENGL1101	College Writing I	3
PSCI1113	State and Local Government	3
	MN Transfer Electives	12
	Restricted Electives	6

Correctional Officer Certificate 29 Credits M

Students interested in a criminal justice career, other than law enforcement, may enroll in the Correctional Officer Certificate program. The 29-credit certificate program is designed to:

- 1) Provide pre-employment education for the student who desires a position as a Correctional Officer.
- 2) Provide in-service education for employed Correctional Officers.
- 3) Facilitate articulation into the two-year Criminal Justice A.S. degree for peace officer licensing.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
CPTR1100	Fund Computer Concepts	1
CRJU1101	Intro to Criminal Justice	3
CRJU1107	Criminal Law/Proc for Corrections	3
CRJU1108	Physical Control Tactics/Corrections	3
CRJU1109	Law Enforce/Behave Sci	3
CRJU2206	Police Report Writing	3
GSCO1102	Applied Communications	3
HLTH1160	Medication Administration for Correctional Officers	1
HLTH2214	Emergency Responder	3
SOC2216	Minority Group Relations	3

Cosmetology Diploma 58 Credits W

Cosmetology is the art and the science, as well as the business, of beauty care and thus offers students a variety of career opportunities. Students completing the program can choose to be general cosmetologists or to excel in their area of expertise such as perming and cutting, hair care and coloring, or skin and nail care.

This program welcomes both men and women. Students of the Cosmetology program will receive a combination of classroom and laboratory work with the opportunity to practice their skills on mannequins and actual customers who come to the campus clinic/salon. Acquired cosmetology hours or credits earned and documented from other licensed colleges, whether in or out of state, may be accepted, upon approval of the Minnesota Commerce Department. Graduates holding a valid cosmetology license are also eligible for employment on tourist ships and in other unique employment settings. Academically, courses in Biology, Chemistry, English, Math and Business are necessary in preparing for a career in Cosmetology.

The Department of Commerce, which is the cosmetology licensing body, requires 1550 hours of clinical time in order to become licensed in the State of Minnesota. Upon completion of 1550 hours and passing of the state exam, a license will be issued.

Course #	Course Title	Crds
COSM1103	Shampooing & Rinsing	2
COSM1105	Hairstyling	3
COSM1107	Haircutting	3
COSM1111	Properties of the Hair & Scalp	2
COSM1113	Chemical Texture Services	3
COSM1115	Braiding/Extensions/Wigs	2
COSM1121	Histology of the Skin	2
COSM1122	Clinic I	3
COSM1123	Facials/Make-Up/Hair Removal	3
COSM1124	Clinic II	3
COSM1125	Nail Structure & Growth	1
COSM1126	Clinic III	3
COSM1127	Hair Color	3
COSM1131	Manicuring/Pedicuring	2
COSM1133	Anatomy of the Head, Face & Neck	2
COSM1135	Advanced Nail Techniques	3
COSM1137	Principles of Hair Design	1
COSM1141	Chemistry/Electricity	2
COSM1143	Salon Business	2
COSM1145	Infection Control	2
COSM1147	Minnesota Cosmetology Laws and Rules	2
COSM1149	Advanced Hair Design	1
COSM1155	Professional Image	1
CPTR1104	Intro to Computer Tech	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1

Criminal Justice AS 64 Credits F M

The Associate of Science Degree in Criminal Justice prepares students for careers in law enforcement. MSCTC's Criminal Justice Program has been designated a Professional Peace Officer Education Program by the Minnesota Board of Peace Officer Standards and Training. Students seeking a career in law enforcement will be prepared for and offered the opportunity to complete all educational and practical requirements necessary to apply for peace officer licensing.

The internship program provides students with comprehensive training to develop additional skills in critical thinking, communications and practical application.

Criminal Justice faculty have extensive academic and practical experience within the field.

Students seeking an A.S. Degree in Criminal Justice are required to declare that intention prior to the second semester of coursework. Acceptance into the program is contingent on the student's:

* Completion of at least 12 credits of required general education courses.

* Achievement of a cumulative grade point average of 2.5 or higher.

* Successful completion of a personality assessment provided and evaluated through MSCTC. [^Approximate cost = \$125]

* Completion of a criminal background check through the State of Minnesota or applicable state. [^Approximate cost = \$15]

* Achievement of at least a "C" in all Criminal Justice classes.

* Completion of required initial advising session with the program coordinator.

* Note that expenses listed in brackets above and marked by ^ are not eligible for financial aid.

If there are more applicants who meet the above criteria than the program can accommodate, applicants will be selected based on program application date. Registration to some Criminal Justice courses is restricted to AS Degree students unless approved by the program coordinator.

Course #	Course Title	Crds
CRJU1101	Intro to Criminal Justice	3
CRJU1102	Policing & Practices	3
CRJU1104	Juvenile Justice & Delinq	3
CRJU1109	Law Enforce/Behave Sci	3
CRJU2201	Criminal Law	3
CRJU2202	Criminal Procedures	3
CRJU2206	Police Report Writing	3
CRJU2208	Criminal Investigations	4
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
HLTH2214	Emergency Responder	3
SPCH1150	Interpersonal Comm	3
OR		
SPCH1114	Intro to Public Speaking	3
	Criminal Justice Electives	6
	MN Transfer Electives	21

Culinary Arts Diploma 64 Credits M

This program provides training for a variety of occupations in the food service industry. Men and women enrolling in this program learn to prepare complete meals for quantity and gourmet food preparation establishments. The program provides training in nutrition, sanitation, and the operation of equipment in addition to food preparation techniques. The student also learns how to plan and price menus and coordination and supervision skills along with inventory, cost control, and purchasing.

The chef performs many functions in the food service industry, including food preparation, planning, control, supervision, and a variety of other tasks that coincide with the total control of the kitchen in the commercial food world. The program requires the ability to work as part of a team and communicate well with others. Tact, courtesy, and a pleasant personality are important, as are a keen sense of taste and smell.

The student learns preparation, service, and organizational skills through a comprehensive educational experience. Students are exposed to all aspects of the industry, including quantity foods preparation, restaurant service, classical cuisine, buffets, garde manger work, and storeroom and inventory control. Students serve customers, prepare standardized recipes, plan menus, and organize work stations.

Course #	Course Title	Crds
----------	--------------	------

CULN1102	Intro to Foodservice Prep	4
CULN1104	Soups, Stocks & Sauces	2
CULN1106	Salad & Baking Lab	6
CULN1112	Poultry & Seafood	3
CULN1118	Fry & Broiler Lab	5
CULN1120	Kitchen Math & Formulas	1
CULN1122	Sanitation Certification	1
CULN1124	Menu Planning/Merchandising	2
CULN2202	Meats	2
CULN2204	Breakfast Preparation Lab	5
CULN2206	Buffet & Garde Manger Lab	3
CULN2214	Quantity Food Prep & Butcher Lab	6
CULN2222	Prod & Planning Supervision Lab	6
CULN2228	Food Cost Control	3
	General Studies Electives	9
	Restricted Electives	6

Dental Assisting Diploma 45 Credits M

The Dental Assisting program provides knowledge necessary for the dental assistant to assist in performing general clinical assisting and support functions, intraoral clinical procedures, business office procedures and laboratory tasks. The curriculum includes content in general studies; biomedical, dental, and clinical sciences; clinical practice; and additional intraoral clinical functions. Certain biomedical and dental science courses offered in the curriculum are common to both Dental Assisting and Dental Hygiene majors. Graduates are eligible to write the Dental Assisting National Board Certification Exam and the Minnesota State Board of Dentistry Registration Exam.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division, and commence the Hepatitis B vaccination series. Individuals who do not receive a clear background check may participate in the program, but can not be allowed to participate in clinical and/or field experience courses which are required for graduation.

Dental Assisting Program minimum admission requirements:
1. Academic Transcript with a minimum 2.5 GPA. If applicant has completed 12 or more college credits, admission will be determined based on college transcript. If applicant has not completed 12 or more college credits, admission will be determined based on *High School transcript or **GED.

*If applicant is currently in the process of completing high school, a final transcript must be submitted prior to July 2006 that reflects the minimum 2.5 GPA at the time of graduation. A final transcript that reports a GPA below 2.5 will result in removal from the program. Failure to submit a transcript may result in the same.

**GED completion transcript with a minimum average of 500 (50 on older tests) on each of the five tested areas.

AND

2a. Completion of all developmental course work based on assessment results prior to acceptance into the Dental Assisting program. Students must earn a C or better in all developmental course work to be eligible for acceptance to the program.

Developmental Courses:
DVCM 0006 Comprehension Building
ENGL 0050 Writing Fundamentals
MATH 0052 Developmental Math

OR

2b. Accuplacer assessment scores as follows: (or be eligible for an assessment waiver)
Arithmetic = 56

Reading = 67
Writing = 78

Course #	Course Title	Crds
CPTR1100	Fund Computer Concepts	1
DENT1100	Biomaterials	3
DENT1114	Dental Radiology	4
DENT1122	Dental Ethics & Jurisprudence	1
DNAS1106	Biodental Science	3
DNAS1112	Clinical Assisting I	4
DNAS1114	Dental Prac Management	2
DNAS1116	Clinical Assisting Specialties	6
DNAS1118	Advanced Functions	7
DNAS1130	Clinical Affiliation	6
DNAS1134	Credentialing Exam Prep	2
GSCO1102	Applied Communications	3
GSMS1102	Intro to Nutrition	2
GSMS1110	First Aid / CPR	1

Dental Hygiene AAS 88 Credits M

The Dental Hygiene program provides knowledge and skills necessary for the dental hygienist to work for a dentist and to provide direct patient care to patients. The services dental hygienists provide vary somewhat from state to state. Routine functions include: scaling, periodontal therapy, and polishing teeth; applying preventive and other topical agents to the teeth; taking and processing x-rays; assessing the patient's health and the health of the supporting structures of the teeth; providing patient education, providing pain control measures such as local anesthetic and conscious nitrous oxide sedation, and providing dental health education in the community. The curriculum includes content in general education; bio-medical, dental, dental hygiene, and clinical sciences; and clinical practice. Graduates are eligible to write the National Board and take the Central Regional Dental Testing Service, Inc. exam.

Application to the Dental Hygiene Program must be completed before March 1 of the year in which a student wishes to attend the Dental Hygiene program. The selection of students is done on a point system using the Dental Hygiene Application Assessment Sheet to rank applicants.

If accepted into the program, the student must complete and pass an annual background check required by the Minnesota Human Services licensing division, complete the Hepatitis B series, be certified in First Aid and CPR, and current in immunizations.

Course #	Course Title	Crds
<u>Prerequisites:</u>		
CPTR1100	Fund Computer Concepts	1
MATH0090	Introductory Algebra	3
<u>Required:</u>		
DENT1100	Biomaterials	3
DENT1114	Dental Radiology	4
DENT1122	Dental Ethics & Jurisprudence	1
DNHY1106	Head and Neck Anatomy	2
DNHY1108	Oral Histology & Embryology	2
DNHY1110	Dent Hygiene Prin I	2
DNHY1112	Dent Hygiene Prac I	3
DNHY1116	Dent Hygiene Prin II	5
DNHY1118	Oral Pathology	2
DNHY1123	Dent Hygiene Prac II	5
DNHY1124	Pain Control Lab	2
DNHY1128	Dental Anatomy	3
DNHY1130	Dent Hygiene Prin III	1
DNHY1132	Dent Hygiene Prac III	1
DNHY1136	Dental Pharmacology	2
DNHY2210	Dent Hygiene Prin IV	2
DNHY2213	Dent Hygiene Prac IV	6
DNHY2219	Periodontology	2
DNHY2220	Dent Hygiene Prin V	1

DNHY2223	Dent Hygiene Prac V	6
DNHY2226	Community Dental Hygiene	4
DNHY2240	Clinical Affiliation I	1
DNHY2246	Clinical Affiliation II	1
BIOL2202	Principles Nutrition	3
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
BIOL2257	Medical Microbiology	3
CHEM1100	Fund Concepts Chemistry	3
ENGL1101	College Writing I	3
PSYC1200	General Psychology	3
SOC1111	Intro to Sociology	3
SPCH1114	Intro to Public Speaking	3

Diesel Equipment Technology (General) - AAS 79 Credits M

The Diesel Equipment Technician works in an exciting and rapidly changing industry. Students in this program receive the diagnostic and service training needed to be successful in their chosen field.

Students entering should have good mechanical aptitude, good communication skills and the ability to comprehend service literature. The program prepares individuals to diagnose and repair all components. This includes such items as diesel engines, transmissions, drive lines, differentials, hydraulic and air brake systems, electrical systems, electronically controlled fuel systems and transmissions, and involves instruction in the use of a wide variety of tools and diagnostic testing equipment. Students are prepared for careers requiring them to inspect, diagnose, repair, and maintain trucks, trailers, farming equipment, diesel and construction equipment, stationary diesel engines in electrical generators, and related equipment. Instruction includes diagnosing, disassembling, repairing and adjusting systems and parts, vehicle service, air brake systems, brakes, starting and suspension systems, wheel alignment, fuel systems, differential, electronic fuel control, clutch and transmissions, air conditioning, and refrigeration. About two-thirds of the instruction time is spent in the diesel lab working on live work and training models. Students learn to diagnose problems and disassemble, recondition and replace faulty parts, and get hands-on training on such components as electrical, transmissions, air conditioning, brakes, fuel systems hydraulics, and engines. This program is an Association of Diesel Specialists TechSmart program participant.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
DSET1106	Fuel Systems	2
DSET1110	Power Train I	3
DSET1112	Hydraulics I	4
DSET1114	Vehicle Brakes	3
DSET1124	Diesel Shop Management	1
DSET1130	Trans Elec/Start/Charge	4
DSET1132	Intro to Engine Theory	2
DSET1134	Intro to Engines	3
DSET1140	SOE I	7
DSET1144	Electrical Troubleshooting	3
DSET2204	Adv Electrical Systems	3
DSET2206	Electronic Controls	3
DSET2210	Mobile Hydraulics	4
DSET2230	Adv Engines & Fuel Systems I	3
DSET2232	Adv Engines & Fuel Systems II	3
DSET2238	Transmissions & Drive Systems	4
DSET2240	SOE II	3
GSWS1102	Contemporary Career Search	1
TRNS1102	Intro to Transportation	2
TRNS1112	Heating Ventilation A/C	3
ENGL1201	Technical Writing	3
OR		
ENGL1061	Business English	3
MATH1100	World of Math	3

PHIL1201 Ethics	3
SPCH1114 Intro to Public Speaking	3
MN Transfer Electives	3

**Diesel Equipment Technology
(Case IH & New Holland Sponsored) -
AAS 79 Credits
M**

The Case IH or New Holland Diesel Equipment Technician works in an exciting and rapidly changing industry. Students in this partnership program receive an education in diesel and heavy equipment technology.

Sponsorship: Case IH & New Holland Forging the Future Partnership

Sponsorship is granted on interviews, standardized tests, and admission to MSCTC. Students who are accepted into the sponsored program may qualify to receive the following:

- *Partial reimbursement for tuition and tools.
- *Employment with Case IH or New Holland during the academic year.
- *Employment during the summer after the first year.
- *Uniforms for work and school.

To learn more about the Case IH & New Holland Forging the Future Partnership program, contact your local Case IH or New Holland dealership. For additional information about Case IH & New Holland go to <http://www.cnh.com>. This Forging the Future Partnership program, located in Moorhead, Minnesota, is the first Case IH & New Holland corporate-supported college program in the nation.

Students entering the Forging the Future Partnership should have good mechanical aptitude, good communications skills and the ability to comprehend service literature. The program prepares individuals to diagnose and repair components. This includes such items as diesel engines, transmissions, drive lines, differentials, hydraulic systems, electrical systems, and electronically-controlled fuel systems and transmissions, and involves instruction in the use of a wide variety of tools and diagnostic testing equipment. Students are prepared for careers that require them to inspect, diagnose, repair, and maintain Case IH or New Holland agricultural and construction equipment. Instruction includes diagnosing, disassembling, repairing and adjusting systems and parts, including brakes, starting and charging system components, suspension, fuel systems, differential, electronic fuel control, clutch and transmissions, air conditioning, and refrigeration. The Case IH & New Holland partnership also requires students to perform supervised occupational work experiences at sponsoring Case IH or New Holland dealerships, which provides on-the-job work experience. Each supervised occupational work experience is 7-8 weeks in length.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
DCNH1116	CNH SOE I	3
DCNH1118	CNH SOE II	7
DCNH2210	Mobile Hydraulics	4
DCNH2218	CNH SOE III	3
DCNH2230	Adv Engines & Fuel Systems I	3
DCNH2232	Adv Engines & Fuel Systems II	3
DCNH2238	Transmissions & Drive Systems	4
DSET1106	Fuel Systems	2
DSET1110	Power Train I	3
DSET1112	Hydraulics I	4
DSET1124	Diesel Shop Management	1
DSET1130	Trans Elec/Start/Charge	4
DSET1132	Intro to Engine Theory	2
DSET1134	Intro to Engines	3
DSET1144	Electrical Troubleshooting	3
DSET2204	Adv Electrical Systems	3
DSET2206	Electronic Controls	3
GSWS1102	Contemporary Career Search	1

TRNS1102 Intro to Transportation	2
TRNS1112 Heating Ventilation A/C	3
ENGL1201 Technical Writing	3
OR	
ENGL1061 Business English	3
MATH1100 World of Math	3
PHIL1201 Ethics	3
SPCH1114 Intro to Public Speaking	3
MN Transfer Electives	3

**Diesel Equipment Technology
(John Deere Sponsored) - AAS 79
Credits
M**

John Deere Construction & Forestry Specialization
We can jump-start your career! The John Deere Construction & Forestry Technician (C & F Tech) program is a collaboration between John Deere, RDO Equipment Co., Nortrax, and Minnesota State Community & Technical College (MSCTC) to train future John Deere qualified service technicians.

The first year of this dynamic two-year program will be spent in classes designed to teach the operational concepts of diesel engines, power trains, brakes, electrical and hydraulic systems, and shop procedures and safety. The second year training coursework was designed by John Deere and concentrates on the specific John Deere product line, as well as engine tune-up and troubleshooting, crawler undercarriages, hydrostatic transmissions and failure analysis.

Along with technical expertise, students entering the John Deere partnership program should be eager to partner with John Deere customers to provide long-term service and support. Therefore another component of the John Deere C & F Tech program is the supervised occupational work experiences students perform at sponsoring John Deere dealerships. This 7-8 week opportunity provides invaluable on-the-job work experience.

Sponsorship: RDO Equipment Co. and Nortrax are the John Deere construction & forestry equipment dealers in ND, SD, MT, WI & MN. Dealer sponsorship is based on an application process which includes interviews, a standardized test and admission to MSCTC. Students accepted into the program qualify to receive:

- *\$8000 in tuition reimbursement.
- *Paid part-time employment opportunities during the school year and full-time the summer after the first year.
- * Uniforms for work and school.

To learn more about the John Deere C & F Tech sponsorship program, contact April Mitchell at RDO Equipment Co. at amitchell@rdoequipment.com or Darrell Stellingwerf at Nortrax at Darrell.Stellingwerf@nortrax.com. For additional information about the program, go to www.johndeere.com/tech.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
DEER1116	John Deere SOE I	3
DEER1118	John Deere SOE II	7
DEER2210	Mobile Hydraulics	4
DEER2218	John Deere SOE III	3
DEER2230	Adv Engines & Fuel Systems I	3
DEER2232	Adv Engines & Fuel Systems II	3
DEER2238	Transmissions & Drive Systems	4
DSET1106	Fuel Systems	2
DSET1110	Power Train I	3
DSET1112	Hydraulics I	4
DSET1124	Diesel Shop Management	1
DSET1130	Trans Elec/Start/Charge	4
DSET1132	Intro to Engine Theory	2

DSET1134 Intro to Engines	3	
DSET1144 Electrical Troubleshooting	3	
DSET2204 Adv Electrical Systems	3	
DSET2206 Electronic Controls	3	
GSWS1102 Contemporary Career Search	1	
TRNS1102 Intro to Transportation	2	
TRNS1112 Heating Ventilation A/C	3	
ENGL1201 Technical Writing	3	
OR		
ENGL1061 Business English	3	
MATH1100 World of Math	3	
PHIL1201 Ethics	3	
SPCH1114 Intro to Public Speaking	3	
MN Transfer Electives	3	

Diesel Equipment Technology (General) - Diploma 65 Credits M

The Diesel Equipment Technician works in an exciting and rapidly changing industry. Students in this program receive the diagnostic and service training needed to be successful in their chosen field.

Students entering should have good mechanical aptitude, good communication skills and the ability to comprehend service literature. The program prepares individuals to diagnose and repair all components. This includes such items as diesel engines, transmissions, drive lines, differentials, hydraulic and air brake systems, electrical systems, electronically controlled fuel systems and transmissions, and involves instruction in the use of a wide variety of tools and diagnostic testing equipment. Students are prepared for careers requiring them to inspect, diagnose, repair, and maintain trucks, trailers, farming equipment, diesel and construction equipment, stationary diesel engines in electrical generators, and related equipment. Instruction includes diagnosing, disassembling, repairing and adjusting systems and parts, vehicle service, air brake systems, brakes, starting and suspension systems, wheel alignment, fuel systems, differential, electronic fuel control, clutch and transmissions, air conditioning, and refrigeration. About two-thirds of the instruction time is spent in the diesel lab working on live work and training models. Students learn to diagnose problems and disassemble, recondition and replace faulty parts, and get hands-on training on such components as electrical, transmissions, air conditioning, brakes, fuel systems hydraulics, and engines. This program is an Association of Diesel Specialists TechSmart program participant.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
DSET1106	Fuel Systems	2
DSET1110	Power Train I	3
DSET1112	Hydraulics I	4
DSET1114	Vehicle Brakes	3
DSET1130	Trans Elec/Start/Charge	4
DSET1132	Intro to Engine Theory	2
DSET1134	Intro to Engines	3
DSET1144	Electrical Troubleshooting	3
DSET2204	Adv Electrical Systems	3
DSET2206	Electronic Controls	3
DSET2210	Mobile Hydraulics	4
DSET2220	Internship	3
DSET2230	Adv Engines & Fuel Systems I	3
DSET2232	Adv Engines & Fuel Systems II	3
DSET2238	Transmissions & Drive Systems	4
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
TRNS1102	Intro to Transportation	2
TRNS1112	Heating Ventilation A/C	3
ENGL1201	Technical Writing	3
OR		
ENGL1061	Business English	3

Restricted Electives 3 Early Childhood & Paraprofessional Education AS 64 Credits W CC

This program includes coursework in child development, guidance, children with special needs, infant/toddler and school age children's development, as well as the role of the paraprofessional and sign language. Graduates will independently provide a healthy, safe, developmentally appropriate learning environment in support of families. Child development courses in combination with General Education courses comprise the 64-credit degree program for students.

The program meets the educational requirements for Assistant Teacher and Paraprofessional in an educational setting as well as Assistant Teacher and Teacher in a Child Care setting and/or Family Child Care Provider, Group Family Child Care Provider (based on program) as listed in Minnesota Department of Human Services Rules Number 2 and 3. Work experience, in addition to a field experience course is also required by Rule 3 for positions in licensed child care facilities.

Individuals entering the program must complete a background check required by the Minnesota Department of Human Services licensing division. Individuals with any prior record of child maltreatment or crime of violence may participate in the program, but the student will not be allowed to participate in lab or field experience coursework.

Course #	Course Title	Crds
CDEV1105	Development/Guidance	3
CDEV1107	Intro to Early Educ	3
CDEV2200	Integrating Play	3
CDEV2229	Imaginative Learning	3
CDEV2236	Occupational Experience	1
CDEV2238	Integrating Children with Special Needs	3
CDEV2240	Observing & Assessing	3
CDEV2242	Infant/Toddler Program	3
CDEV2243	Infant/Toddler Lab	1
CDEV2244	Parent & Professional Relations	3
CDEV2246	Foundations in Literacy	3
CDEV2250	Sign Language	1
CDEV2252	Paraprofessional Role	1
CDEV2290	Internship	3
ANTH1100	Anthropology	3
ART1110	Intro to Art	3
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
MCS2230	Educ & Multicultural America	3
PHIL1201	Ethics	3
PSCI1113	State and Local Government	3
PSYC1200	General Psychology	3
SOC1111	Intro to Sociology	3
SPCH1114	Intro to Public Speaking	3

Electrical Lineworker Technology Diploma 36 Credits W

The Electrical Line Worker program provides trained personnel for the power industry. Coursework provides both theory and practical hands-on experience in all phases of power line construction and maintenance. Coursework includes electrical math, national electrical safety codes, construction of overhead and underground distribution systems, conductor applications, over voltage and over current protection, guying and pole grounding. The 90 acre Training Field located near the campus provides a site for hands-on experience in pole setting. The successful graduate is eligible for employment in rural electric and municipal utilities or with private contractors.

Course #	Course Title	Crds
----------	--------------	------

CPTR1100 Fund Computer Concepts	1
ELWT1102 Line Worker Theory I	4
ELWT1104 Electrical Structure Installation	5
ELWT1106 Climbing Electrical Structure	4
ELWT1108 Const of Overhead Structures	3
ELWT1110 Line Worker Theory II	4
ELWT1112 Transformers	2
ELWT1114 Line Construction Reports	2
ELWT1116 Pole Top/Bucket Rescue	1
ELWT1118 Field Construction I	3
ELWT1120 Field Construction II	3
GSMS1110 First Aid / CPR	1
GSWS1102 Contemporary Career Search	1
Restricted Electives	2

**Electronics Technology
AAS 72 Credits
W**

The Electronics Technology program provides the student with the technical knowledge and practical experience that is necessary for entry into a wide range of electronic specialty areas. Students entering this program should have good math, communications, and problem solving skills. In addition, this program requires mechanical ability and hand-eye coordination.

The first year electronics core is designed to prepare the student with a strong theoretical foundation in the various aspects of the electronics industry. Students learn to test, develop, maintain, troubleshoot, and repair electronics components, circuits, equipment, and systems.

The second year student may then choose to continue his/her training in one, or more, of the following electronics technology options: general electronics, computer systems electronics, electronic communications, or industrial electronics. In addition, the student may decide to pursue technical training in the electronics related fields of biomedical equipment technology, radiology equipment service, or telecommunications engineering.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ELTR1102	Circuit Analysis I	4
ELTR1104	Circuit Analysis II	3
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1154	Semiconductors II	3
ELTR1160	Electronic Assembly Tech	2
ELTR1180	Communication Systems I	3
ELTR2202	Semiconductors III	3
ELTR2208	Microprocessors	3
ELTR2212	Microcomputer Sys Program	3
ELTR2230	Troubleshooting	4
ELTR2272	Adv Lab Project II	2
ENGL1101	College Writing I	3
PHYS1105	Fundamental Concepts in Physics	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9
	Restricted Electives	15

**Electronics Technology
Diploma 64 Credits
W**

The Electronics Technology program provides the student with the technical knowledge and practical experience that is necessary for entry into a wide range of electronic specialty areas. Students entering this program should have good math, communications, and problem solving skills. In addition, this program requires mechanical ability and hand-eye coordination.

The first year electronics core is designed to prepare the student with a strong theoretical foundation in the various aspects of the electronics industry. Students learn to test, develop, maintain, troubleshoot, and repair electronics components, circuits, equipment, and systems.

The second year student may then choose to continue his/her training in one, or more, of the following electronics technology options: general electronics, computer systems electronics, electronic communications, or industrial electronics. In addition, the student may decide to pursue technical training in the electronics related fields of biomedical equipment technology, radiology equipment service, or telecommunications engineering.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
ELTR1102	Circuit Analysis I	4
ELTR1104	Circuit Analysis II	3
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1154	Semiconductors II	3
ELTR1160	Electronic Assembly Tech	2
ELTR1180	Communication Systems I	3
ELTR2202	Semiconductors III	3
ELTR2208	Microprocessors	3
ELTR2212	Microcomputer Sys Program	3
ELTR2230	Troubleshooting	4
ELTR2272	Adv Lab Project II	2
GSMS1002	Technical Trigonometry	2
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
	Restricted Electives	16

**Electronics Technology Core
Certificate 30 Credits
W**

The Electronics Technology program provides the student with the technical knowledge and practical experience that is necessary for entry into a wide range of electronic specialty areas. Students entering this program should have good math, communications, and problem solving skills. In addition, this program requires mechanical ability and hand-eye coordination.

The first year electronics core is designed to prepare the student with a strong theoretical foundation in the various aspects of the electronics industry. Students learn to test, develop, maintain, troubleshoot, and repair electronics components, circuits, equipment, and systems. The core certificate is available to students after completion of 30 credits (first year electronics required courses [24 credits] and 6 credits of electives).

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ELTR1102	Circuit Analysis I	4
ELTR1104	Circuit Analysis II	3
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1154	Semiconductors II	3
ELTR1160	Electronic Assembly Tech	2
ELTR1180	Communication Systems I	3
	Technical Electives	6

**Esthetist
Certificate 24 Credits
W**

Esthetics is a non-medical treatment of the skin, its disorders and function. Instruction includes the sciences of anatomy, dermatology and chemistry as related to skin care; electricity light therapy; sanitation and safety procedures; Minnesota

statutes and laws which pertain to the regulation of the practice of skin care; and elementary service skills.

Course #	Course Title	Crds
COSM1106	Preclinic Intro Esthetist	3
COSM1116	Preclinic Skin Care	3
COSM1120	Salon Preparation	3
COSM1126	Clinic III	3
COSM1138	Estheology Clinical/License Prep	3
COSM1140	Clinic VII	3
COSM1142	Salon Practicum I	3
GSCI1108	Info Retrieval - 21st Century	1
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1

Fashion Marketing and Management AAS 70 Credits

M

This program is designed to prepare students with the skills necessary for management careers in the apparel and accessory industry. The students are provided with the essential skills in sales, marketing, management, computer technology, merchandise presentation, buying, customer service, and product knowledge. Emphasis is placed on professional competence in the areas of apparel and accessory display, buying, selling, and management.

General education courses are required. Nine of the 18 general education credits are in College Writing I, Macroeconomics, and Introduction to Public Speaking. The student chooses courses to complete the remaining nine credits.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
FASH1140	Textiles	3
FASH1144	Fashion History & Trends	3
FASH1152	Professional Image Strategies	3
FASH2242	Fashion Accessories	3
FASH2248	Buying	3
FASH2250	Visual Merchandising	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG2200	Prin of Management	3
MKTG2204	Applied Sales Techniques	3
ENGL1101	College Writing I	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	12
	Restricted Electives	13

Fashion Marketing and Management Diploma 70 Credits

M

This program is designed to prepare students with the skills necessary for management careers in the apparel and accessory industry. The students are provided with the essential skills in sales, marketing, management, computer technology, merchandise presentation, buying, customer service, and product knowledge. Emphasis is placed on professional competence in the areas of apparel and accessory display, buying, selling, and management. Current trends are integrated into classroom curriculum through computer technology, speakers, and field trips. General education courses are not required.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
CPTR1104	Intro to Computer Tech	3
FASH1140	Textiles	3
FASH1144	Fashion History & Trends	3
FASH1152	Professional Image Strategies	3
FASH2242	Fashion Accessories	3
FASH2248	Buying	3

FASH2250	Visual Merchandising	3
GSCO1102	Applied Communications	3
GSSI1112	Contemporary Economics	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG1116	Advertising	3
MKTG2200	Prin of Management	3
MKTG2204	Applied Sales Techniques	3
	Restricted Electives	13

Financial & Credit Services Administration AAS 66 Credits

M

This program prepares individuals with the skills needed to support credit, lending, and selling functions in financial institutions, trade and service credit, and collection agencies. Prospective students should be interested in working with numbers and details, and should have a genuine desire to assist other people with credit services.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
ACCT1012	Prin of Bookkeeping	3

<u>Required:</u>		
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
ACCT2201	Financial Accounting I Lab	1
ACCT2211	Financial Accounting I	3
ADMS1116	Business Communications I	3
CPTR1104	Intro to Computer Tech	3
FNCS1110	Intro to Financial Services	2
FNCS1114	Consumer Lending	3
FNCS1118	Personal Finance Prod/Cust Srvc	3
FNCS1122	Teller Applications	3
FNCS1126	Credit Counseling & Collections	2
FNCS2210	Financial Statement Analysis	3
FNCS2220	Real Estate Lending	3
FNCS2240	Financial Internship	3
GSWS1102	Contemporary Career Search	1
ECON2210	Macroeconomics	3
ENGL1101	College Writing I	3
HUM1101	Intro to Humanities	3
PHIL1201	Ethics	3
PSYC1200	General Psychology	3
SOC1111	Intro to Sociology	3
SPCH1114	Intro to Public Speaking	3
	Restricted Electives	6

Fire Service Preparation Certificate 19 Credits

M

This certificate program provides an opportunity for individuals to obtain basic instruction in firefighting, rescue, and emergency medical care. The program is designed to meet the minimum entry-level requirements for most fire departments around the country. This certificate consists mostly of technical coursework with only three credits of general studies; providing for a focus of technical hands-on training to enable the student to become familiar with the entry-level aspects of the fire service. Other admissions criteria may apply.

Course #	Course Title	Crds
<u>Prerequisites:</u>		
DVCM0006	Comprehension Building	3
ENGL0050	Writing Fundamentals	3

<u>Required:</u>		
CPTR1100 Fund Computer Concepts		1
EMTB1100 Emergency Med Tech Basic		6
FIRE1100 Intro to Fire Service		2
FIRE1106 Firefighter I & II		3
FIRE1108 Firefighter I & II Skills		4
FIRE1150 HazMat Operational		3

Graphic Design Technology AAS 64 Credits M

Graphic Design Technology is a highly competitive and rewarding career for those with a talent and/or interest in the graphic arts. Graphic Design Technology does not focus on the fine arts of painting and art history—we focus on the integration of technology with graphic design to train students to create communication materials (stationery, brochures, annual reports, newspaper layout, etc.) for print production.

Within two years of training, individuals develop creatively and technically as they learn skills in photography, illustration, design and pre-press production. Students become task-oriented by learning to meet deadlines, problem-solve and work efficiently. Our graduates are expected to be self-motivated and apply the skills they learn in the classroom outside of instruction time to strengthen their abilities. The Graphic Design Technology program prepares students for entry-level positions in the Graphic Design Technology industry.

Students work on their own Macintosh laptop to complete coursework, so there is never a need to wait for an available computer. Owning individual laptops also allows each student to be mobile and work from anywhere at any time. Students will begin with foundation level work that includes learning about Macintosh technology, basic drawing, print process theories, technical computer illustration and basic design theories. They progress to higher levels of design theory and application, advanced illustration, photo manipulation using image editing software and page layout skills in a page layout computer application. Class curriculums consist of lectures, demonstrations, hands-on application, industry tours and lab work.

We also guide our graduates in how to behave and work as a professional in our industry. Instructors teach from real world experience and as a result, students are prepared to produce industry-level design work that meets technical criteria for print production, as well as integrate professional expectations of meeting deadlines and being organized. The final result of a student's study is a comprehensive portfolio that showcases the student's technical and design skills. With the student's skills and portfolio obtained from study, the job market is open to receiving them as an efficient Graphic Design Technology employee.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
GDTC1112	Design & Layout I	4
GDTC1114	Design & Layout II	4
GDTC1126	Digital Photography	3
GDTC1128	Typography	3
GDTC1134	Electronic Drawing I	3
GDTC1144	Electronic Drawing II	3
GDTC1150	Process Printing Theory	3
GDTC2202	Electronic Image Manipulation	4
GDTC2212	Design & Layout III	3
GDTC2242	Electronic Publishing	3
GDTC2244	Adv Electronic Imaging	3
GDTC2256	Graphic Dsgn Prof Prac	4
GDTC2278	Digital Preflight	3
*ART170	Art Apprec: Cont & Form-MSUM	3
*ART455	Psychology of Art-MSUM	3
ENGL1101	College Writing I	3
PHIL1211	Intro to Philosophy	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3

Graphic Design Technology Diploma 64 Credits M

Graphic Design Technology is a highly competitive and rewarding career for those with a talent and/or interest in the graphic arts. Graphic Design Technology does not focus on the fine arts of painting and art history—we focus on the integration of technology with graphic design to train students to create communication materials (stationery, brochures, annual reports, newspaper layout, etc.) for print production.

Within two years of training, individuals develop creatively and technically as they learn skills in photography, illustration, design and pre-press production. Students become task-oriented by learning to meet deadlines, problem-solve and work efficiently. Our graduates are expected to be self-motivated and apply the skills they learn in the classroom outside of instruction time to strengthen their abilities. The Graphic Design Technology program prepares students for entry-level positions in the Graphic Design Technology industry.

Students work on their own Macintosh laptop to complete coursework, so there is never a need to wait for an available computer. Owning individual laptops also allows each student to be mobile and work from anywhere at any time. Students will begin with foundation level work that includes learning about Macintosh technology, basic drawing, print process theories, technical computer illustration and basic design theories. They progress to higher levels of design theory and application, advanced illustration, photo manipulation using image editing software and page layout skills in a page layout computer application. Class curriculums consist of lectures, demonstrations, hands-on application, industry tours and lab work.

We also guide our graduates in how to behave and work as a professional in our industry. Instructors teach from real world experience and as a result, students are prepared to produce industry-level design work that meets technical criteria for print production, as well as integrate professional expectations of meeting deadlines and being organized. The final result of a student's study is a comprehensive portfolio that showcases the student's technical and design skills. With the student's skills and portfolio obtained from study, the job market is open to receiving them as an efficient Graphic Design Technology employee.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
GDTC1102	Drawing I	3
GDTC1104	Drawing II	3
GDTC1112	Design & Layout I	4
GDTC1114	Design & Layout II	4
GDTC1126	Digital Photography	3
GDTC1128	Typography	3
GDTC1134	Electronic Drawing I	3
GDTC1144	Electronic Drawing II	3
GDTC1150	Process Printing Theory	3
GDTC2202	Electronic Image Manipulation	4
GDTC2204	Electronic Drawing III	3
GDTC2212	Design & Layout III	3
GDTC2242	Electronic Publishing	3
GDTC2244	Adv Electronic Imaging	3
GDTC2256	Graphic Dsgn Prof Prac	4
GDTC2278	Digital Preflight	3
GSCO1102	Applied Communications	3
GSSI1104	Human Relations	3
	Restricted Electives	3

Health Information Technology AAS 64 Credits

The Health Information Technician is an important member of the healthcare team, who secures, analyzes, integrates, and manages health information for patient care, reimbursement, planning, marketing, legal aspects, and research. This information steers the healthcare industry. The program is designed to combine the general education courses with the technical courses for a well-rounded and functional education. To further the student's classroom coursework with practical hands-on experience, time is spent in health care facilities.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Course #	Course Title	Crds	
ADMM1140	Medical Language Applications	3	3
CPTR1104	Intro to Computer Tech	3	
GSWS1102	Contemporary Career Search	1	1
HITM1150	Intro Health Info Science	3	
HITM1152	Health Information Systems	3	
HITM1154	Medicolegal Aspects	2	
HITM1159	Clinical Affiliation I	2	
HITM2202	Cmptr Applic in Healthcare	3	
HITM2212	Intro to Coding ICD-9	2	
HITM2234	Coding III Advanced	3	
HITM2242	Intro to Coding CPT	2	
HITM2245	Coding IV CPT	3	
HITM2250	Super Lead in Hlth	3	
HITM2252	Quality Mgmt & Statistics	3	
HITM2259	Clinical Affiliation II	3	
HITM2262	Reimbursement Systems	2	
HLTH1106	Medical Terminology	2	
HLTH2208	Pathophysiology	3	
BIOL2230	Human Anatomy & Phys I	3	
BIOL2232	Human Anatomy & Phys II	3	
ENGL1101	College Writing I	3	
SPCH1114	Intro to Public Speaking	3	
	MN Transfer Electives	6	6

Human Resources AAS 67 Credits M DE

This program prepares students to provide support to companies, and to individual employees, in the area of human resources. Graduates may assume duties in the following areas: communication with employees, employee data recordkeeping, policies and administration, employee and labor relations, employment process, training and development, wage and salary, and benefit administration.

Course #	Course Title	Crds	
ADMS1110	Word Processing	3	
ADMS1116	Business Communications I	3	
ADMS1128	Records/Database Mgmt	3	
CPTR1104	Intro to Computer Tech	3	
HRES1122	Intro to Human Resources	3	
HRES1126	Employee Processes	3	
HRES1130	Benefits Administration	3	
HRES1134	Training & Development	3	
HRES2204	Policy Administration	3	
HRES2212	Wage/Salary Administration	3	
HRES2224	Employee/Labor Relations	3	
HRES2244	HR Internship	2-3	
HRES2252	HR Competency and Portfolio Evaluation	2	2
ENGL1101	College Writing I	3	
PHIL1201	Ethics	3	
PSYC1200	General Psychology	3	
SOC1111	Intro to Sociology	3	
SPCH1114	Intro to Public Speaking	3	
	MN Transfer Electives	6	6

Human Resources AS 64 Credits M

This program prepares students to provide support to companies, and to individual employees, in the area of human resources. Graduates may assume duties in the following areas: communication with employees, employee data recordkeeping, policies and administration, employee and labor relations, employment process, training and development, wage and salary, and benefit administration.

Course #	Course Title	Crds	
ADMS1110	Word Processing	3	
ADMS1128	Records/Database Mgmt	3	
CPTR1104	Intro to Computer Tech	3	
HRES1122	Intro to Human Resources	3	3
HRES1126	Employee Processes	3	
HRES1130	Benefits Administration	3	
HRES1134	Training & Development	3	
HRES2204	Policy Administration	3	
HRES2212	Wage/Salary Administration	3	
HRES2224	Employee/Labor Relations	3	
HRES2244	HR Internship	2-3	
HRES2252	HR Competency and Portfolio Evaluation	2	2
ENGL1101	College Writing I	3	
ENGL1102	College Writing II	3	
PHIL1201	Ethics	3	
PSYC1200	General Psychology	3	
SOC1111	Intro to Sociology	3	
SPCH1114	Intro to Public Speaking	3	
	MNTC Electives	12	

HVAC - Heating, Ventilation, & Air Conditioning Diploma 42 Credits W

The HVAC - Heating, Ventilation, and Air Conditioning graduate will be able to: design residential and light commercial central heating and air conditioning systems according to load requirements; install, troubleshoot and repair all residential and light commercial heating and air conditioning equipment; design, fabricate and install forced air and hot water distribution systems, using sheet metal, ductboard, copper tubing, Wirsbo tubing, Pex tubing, PVC, and other accepted materials; install a wide range of oil and gas boilers and forced-air furnaces; design, fabricate and install home and light commercial ventilation systems, including both exhaust and fresh air make-up exchangers.

The graduate will be knowledgeable in electric theory, motor and heating-air conditioning controls and switching relays, pumps, compressors, various design variables, and code requirements. This comprehensive program of technical and general education will give the graduate knowledge and hands-on experience in both the electrical and mechanical aspects of HVAC - Heating, Ventilation and Air Conditioning. This combination will prepare students to build and install ductwork, along with the ability to troubleshoot today's sophisticated high-efficiency heating units.

Course #	Course Title	Crds	
CONE1102	Intro Elec Circuit Theory	4	
CPTR1104	Intro to Computer Tech	3	
GSMS1000	Technical Mathematics	3	3
GSMS1110	First Aid / CPR	1	1
HEAT2202	Air Handling	2	
HEAT2218	Gas Heating	2	
HEAT2220	Oil Heating	2	
HEAT2222	Wire Feed Welding	1	

HVAC1102 Duct Fitting Construction	3
HVAC1104 HVAC Electrical Controls	3
HVAC1128 HVAC Design & Installation	5
HVAC2204 Adv Duct Fitting Const	3
HVAC2212 Hot Water Heating	3
HVAC2250 HVAC Applications	1
REFR1110 Refrig, A/C & Htg Prin	3
REFR1112 Refrig, A/C & Htg Lab	3

Industrial Mechanical Maintenance AAS 69 Credits CC

The Industrial/Mechanical Maintenance series will give students practical knowledge to maintain equipment and various power systems in industrial settings. Graduates from the certificate level will gain an understanding of manufacturing processes, mechanical systems and basic maintenance skills. The diploma and AAS degree programs will expand this knowledge to include the operation and troubleshooting of electrical, hydraulic and pneumatic power systems, mechanical systems, and industrial controls.

Course #	Course Title	Crds
CONE2206	Intro Motor Control Applic	3
GSMS1000	Technical Mathematics	3
IMMA1110	Intro Power & Mech Sys	3
IMMA1112	Mech Blueprint Reading	2
METC1112	Manufacturing Processes	4
METC1152	Safety & Accident Prevent	3
METC2202	Power Trans & Mech Sys	3
METC2208	Basic Elec/Electronics	3
METC2210	Electro-Mech & Indus Cntrl	3
METC2220	Hydraulic Systems	3
METC2222	Fluid Power Systems	3
METC2228	Pneumatic Systems	3
ENGL1102	College Writing II	3
PHYS1105	Fundamental Concepts in Physics	3
PSYC1101	Human Interaction	3
SPCH1112	Small Group Communication	3
	MN Transfer Electives	3
	Restricted Electives	18

Industrial Mechanical Maintenance Certificate 21 Credits CC

The Industrial/Mechanical Maintenance series will give students practical knowledge to maintain equipment and various power systems in industrial settings. Graduates from the certificate level will gain an understanding of manufacturing processes, mechanical systems and basic maintenance skills. The diploma and AAS degree programs will expand this knowledge to include the operation and troubleshooting of electrical, hydraulic and pneumatic power systems, mechanical systems, and industrial controls.

Course #	Course Title	Crds
GSMS1000	Technical Mathematics	3
IMMA1110	Intro Power & Mech Sys	3
IMMA1112	Mech Blueprint Reading	2
METC1112	Manufacturing Processes	4
SPCH1112	Small Group Communication	3
	Restricted Electives	6

Industrial Mechanical Maintenance Diploma 39 Credits CC

The Industrial/Mechanical Maintenance series will give students practical knowledge to maintain equipment and various power systems in industrial settings. Graduates from the certificate level will gain an understanding of manufacturing processes, mechanical systems and basic maintenance skills. The diploma and AAS degree programs will expand this knowledge to include the operation and troubleshooting of electrical, hydraulic and pneumatic power systems, mechanical systems, and industrial controls.

Course #	Course Title	Crds
GSMS1000	Technical Mathematics	3
IMMA1110	Intro Power & Mech Sys	3
IMMA1112	Mech Blueprint Reading	2
METC1112	Manufacturing Processes	4
METC1152	Safety & Accident Prevent	3
METC2208	Basic Elec/Electronics	3
METC2222	Fluid Power Systems	3
PHYS1105	Fundamental Concepts in Physics	3
SPCH1112	Small Group Communication	3
	Restricted Electives	12

Legal Administrative Assistant AAS 72 Credits M DE

This major is designed to prepare students for employment as legal administrative secretaries or assistants. Responsibilities in the law firm may include processing incoming and outgoing mail, communicating through electronic mail, scheduling, keyboarding court and non-court documents and forms, transcribing court and non-court documents and forms, filing and retrieving records, and monitoring the court calendar. In addition, they may be given more challenging tasks such as organizing and maintaining client files, composing and dictating letters, performing research, generating reports, maintaining client trust accounts and other bookkeeping applications, and applying supervisory responsibilities. This major requires strong verbal, listening, and writing skills; interpersonal and supervisory skills; ability to keep confidences; knowledge of records management; ability to organize and prioritize work, meet deadlines, schedule, direct others' activities and knowledge of a variety of software application programs and integrated electronic office systems.

Employment outside the lawfirm is also a viable option for Legal Administrative graduates. Responsibilities are similar to those detailed above, but more specific in nature depending on the area of employment.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
ADMS1100	Keyboarding I	3
<u>Required:</u>		
ACCT1120	Business Law	3
ADML1120	Legal Office Procedures	3
ADML1124	Civil & Family Law	3
ADML1126	Criminal, ADR, Appellate	3
ADML1128	Real Estate & Probate	3
ADML1130	Corporate, Collection & Bankruptcy	3
ADML1132	Legal Transcription I	3
ADML2212	Legal Research	3
ADML2220	Advanced Legal Practices	3
ADMS1110	Word Processing	3
ADMS1116	Business Communications I	3
ADMS2124	Computer Technology Information	3
ADMS2212	Integrated Software Applications	3
CPTR1104	Intro to Computer Tech	3
GSWS1102	Contemporary Career Search	1
ENGL1101	College Writing I	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	12
	Restricted Electives	8

**Legal Secretary Technology
Diploma 42 Credits
M DE**

This major prepares students for employment as legal secretaries. This major requires excellent computer and/or keyboarding skills; ability to organize and prioritize work and meet deadlines.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>	
<u>Prerequisite:</u>			
ADMS1100	Keyboarding I	3	
<u>Required:</u>			
ACCT1120	Business Law	3	
ADML1120	Legal Office Procedures	3	
ADML1124	Civil & Family Law	3	
ADML1126	Criminal, ADR, Appellate	3	
ADML1128	Real Estate & Probate	3	
ADML1130	Corporate, Collection & Bankruptcy	3	
ADML1132	Legal Transcription I	3	
ADMS1110	Word Processing	3	
ADMS1116	Business Communications I	3	
ADMS2124	Computer Technology Information	3	
CPTR1104	Intro to Computer Tech	3	
GSSI1104	Human Relations	3	
GWS1102	Contemporary Career Search	3	1
	Restricted Electives	5	

**Manicurist
Certificate 17 Credits
W**

The Manicurist program is designed to give students a thorough knowledge of dermatology and chemistry as it relates to manicuring, as well as sanitation and safety procedures related to the practice of manicuring. Instruction will cover applied studies and skills in cleaning, conditioning, shaping, reinforcing, coloring, and enhancing nails, as well as the application and repair of artificial nails.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>	
COSM1148	Superfluous Hair Removal	2	
GSSI1104	Human Relations	3	
MANI1104	Preclinic Introduction	3	
MANI1110	Preclinic Nail Care	3	
MANI1134	Nail Clinic/License Prep	3	
MANI1146	Manicurist Clinic I	3	

**Manufacturing Engineering Technology
AAS 70 Credits
CC**

The Manufacturing Engineering Technology (MET) program focuses on the broad field of manufacturing by bringing together technology from a wide range of manufacturing and related industries. Program graduates will be prepared to directly apply technology in a variety of industry jobs including: manufacturing, plant management, product design, sales, research & development, distribution, and others. The curriculum covers: manufacturing processes, industrial automation, electricity, hydraulics, pneumatics, computer aided drafting, quality control, power transmission, machining/CNC, operations management, programmable logical controls, and jig & fixture design. As a student, you

will have the advantage of learning this broad-based program from a variety of instructors with industry expertise. The MET curriculum has been developed using guidelines provided by the National Center of Excellence for Advanced Manufacturing, the Society of Manufacturing Engineers, and input from many of our regional manufacturing businesses.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>	
CADD1102	Fundamentals of CADD	4	
CPTR1104	Intro to Computer Tech	3	
MCDD1102	Mech Engineering Drawing I	3	3
METC1112	Manufacturing Processes	4	
METC1152	Safety & Accident Prevent	3	
METC2208	Basic Elec/Electronics	3	
METC2210	Electro-Mech & Indus Cntrl	3	
METC2216	CAM/CNC	3	
METC2226	Jig & Fixture Dsgn for Mfg	3	
METC2252	Production/Operations Mgmt	3	
METC2254	Quality Measurement & Control	3	
METC2256	Programmable Logic Cntrl	4	
METC2270	Manufacturing Internship	3	
ENGL1101	College Writing I	3	
MATH1114	College Algebra	4	
PHIL1201	Ethics	3	
PHYS1105	Fundamental Concepts in Physics	3	
PSYC1200	General Psychology	3	
SPCH1114	Intro to Public Speaking	3	
	Restricted Electives	9	

**Manufacturing Technician
Certificate 19 Credits
CC**

The Manufacturing Technician certificate will provide the first series of courses specifically chosen to be both an introduction to manufacturing and provide valuable initial information to start the student on their manufacturing education path. The 19-credit technician certificate will introduce the student to the world of manufacturing processes, computer, CAD, safety, technical electives, and one general education course.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
METC1112	Manufacturing Processes	4
METC1114	Engineering Drawings/CAD I	3
METC1152	Safety & Accident Prevent	3
	MN Transfer Electives	3
	Restricted Electives	3

**Manufacturing Technology
Diploma 37 Credits
CC**

The Manufacturing Technology diploma is the second level and can be obtained as a continuation of the first certificate or as a stand-alone diploma. This technology diploma is intended to provide additional coverage of manufacturing topics such as: electronics, hydraulics, power transmission, production management, and all the courses covered in the technician certificate.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
METC1112	Manufacturing Processes	4
METC1114	Engineering Drawings/CAD I	3
METC1116	Engineering Drawings/CAD II	3
METC1152	Safety & Accident Prevent	3
METC2202	Power Trans & Mech Sys	3
METC2208	Basic Elec/Electronics	3
METC2220	Hydraulic Systems	3
METC2252	Production/Operations Mgmt	3
MATH1114	College Algebra	4
	MN Transfer Electives	2

**Marine Engine Technology
AAS 69 Credits
D**

The Marine Engine Technician is a person who works in an exciting, rapidly changing and growing industry. The Marine Engine Technology curriculum is designed to educate individuals to become competent marine technicians. The primary focus of the program is the diagnosis, service and repair of outboard and stern drive engines, drive systems, and related systems and components. Students will perform service on modern marine equipment using special test equipment and tools. Students in this program will learn how to plan and perform repairs according to the various manufacturers' recommended procedures.

Students entering this program should have good mechanical aptitude, communication skills, and the ability to comprehend service literature. Graduates of this program are in high demand to fill positions in dealerships as technicians, with many having opportunities to move into management, self-employment, and factory representative positions.

Course #	Course Title	Crds
MRNT1103	Intro to Marine Tech	3
MRNT1104	Drive System Theory	3
MRNT1106	Drive System Service I	3
MRNT1110	Transom & Mid Section Service	3
MRNT1114	Intro to Boat Rigging	2
MRNT1120	Marine Starting and Charging Systems	3
MRNT1122	Small Outboard Fuel Systems	2
MRNT1124	Small Outboard Electrical Systems	3
MRNT2202	Marine Fuel Systems	6
MRNT2204	Marine Electrical Systems	6
MRNT2206	EFI Systems	3
MRNT2208	Engine Condition Diagnosis	2
MRNT2210	Engine Service	3
MRNT2218	Adv Electrical Diagnosis	3
TRNS1102	Intro to Transportation	2
TRNS1104	Transportation Electronics	3
ENGL1101	College Writing I	3
PSCI1113	State and Local Government	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	9
	Restricted Elective	1

**Marine Engine Technology
Certificate 30 Credits
D**

The Marine Engine Technician is a person who works in an exciting, rapidly changing and growing industry. The Marine Engine Technology certificate program is designed to educate individuals to become competent marine technicians. The primary focus of the certificate program is training the student to be well rounded in marine systems, both outboard and stern drive. This training, coupled with taking the Outdoor recreational engine program course allows the graduate to be a worthwhile employee that can repair both recreational and marine product. Students will perform service on modern marine equipment using special test equipment and tools. Students in this program will learn how to plan and perform repairs according to the various manufacturers' recommended procedures.

Students entering this program should have good mechanical aptitude, communication skills, and the ability to comprehend service literature. Graduates of this program are in high demand to fill positions in dealerships as technicians or will

have the training to work for themselves on most types of recreational product.

Course #	Course Title	Crds
MRNT1103	Intro to Marine Tech	3
MRNT1104	Drive System Theory	3
MRNT1106	Drive System Service I	3
MRNT1110	Transom & Mid Section Service	3
MRNT1114	Intro to Boat Rigging	2
MRNT1120	Marine Starting and Charging Systems	3
MRNT1122	Small Outboard Fuel Systems	2
MRNT1124	Small Outboard Electrical Systems	3
TRNS1102	Intro to Transportation	2
TRNS1104	Transportation Electronics	3
	General Studies Electives	3

**Marine Engine Technology
Diploma 64 Credits
D**

The Marine Engine Technician is a person who works in an exciting, rapidly changing and growing industry. The Marine Engine Technology curriculum is designed to educate individuals to become competent marine technicians. The primary focus of the program is the diagnosis, service and repair of outboard and stern drive engines, drive systems, and related systems and components. Students will perform service on modern marine equipment using special test equipment and tools. Students in this program will learn how to plan and perform repairs according to the various manufacturers' recommended procedures.

Students entering this program should have good mechanical aptitude, communication skills, and the ability to comprehend service literature. Graduates of this program are in high demand to fill positions in dealerships as technicians, with many having opportunities to move into management, self-employment, and factory representative positions.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
MRNT1103	Intro to Marine Tech	3
MRNT1104	Drive System Theory	3
MRNT1106	Drive System Service I	3
MRNT1110	Transom & Mid Section Service	3
MRNT1114	Intro to Boat Rigging	2
MRNT1120	Marine Starting and Charging Systems	3
MRNT1122	Small Outboard Fuel Systems	2
MRNT1124	Small Outboard Electrical Systems	3
MRNT2202	Marine Fuel Systems	6
MRNT2204	Marine Electrical Systems	6
MRNT2206	EFI Systems	3
MRNT2208	Engine Condition Diagnosis	2
MRNT2210	Engine Service	3
MRNT2212	Performance Testing	1
MRNT2218	Adv Electrical Diagnosis	3
TRNS1102	Intro to Transportation	2
TRNS1104	Transportation Electronics	3
	General Studies Electives	6
	Restricted Electives	4

**Massage Therapy
Diploma 32 Credits
W**

Massage Therapists specialize in professional massage treatments designed to support the health and well-being of clients. Skillful massage also assists clients in the recovery of physical ailments and reduces the ill-effects of stress. Massage therapy students learn the fundamental techniques needed to perform effective massage treatments, as well as the theory behind delivering professional massage.

Massage therapy has a broad range of benefits including relaxation, stress reduction, pain management, recovery from injury, while promoting good health. Clients receiving professional message include athletes, the elderly, performers, and the general public. Even animals enjoy the benefits of massage.

After successful completion of the Massage Therapy program, students are eligible to take the National Certification Exam (NCE) administered by the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB).

Course #	Course Title	Crds
<u>Prerequisites:</u>		
CPTR1100	Fund Computer Concepts	1
GSMS1110	First Aid / CPR	1
<u>Required:</u>		
GSMS1102	Intro to Nutrition	2
THPY1110	Massage Tech/Ethics	3
THPY1118	Kinesiology	3
THPY1123	Integrative Massage	2
THPY1130	Advanced Massage	2
THPY1135	Deep Tissue Massage	2
THPY1142	Student Clinic	3
THPY1146	Certification Prep	2
THPY1148	Sports Massage & Hydro	2
THPY1150	Business Development	2
THPY1156	Massage Pathophysiology	3
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3

Mechanical Drafting & Design AAS 72 Credits

M

Design Technicians use a graphic language to communicate ideas or products that must be processed, manufactured, or constructed. Students draw layouts of assembly processes, make freehand sketches and rough layouts of machine equipment and parts. They may study costs as they relate to the usefulness of designs and translate the ideas of the engineer into the working plans used in making or installing a product. They convey the engineer's ideas and design to the craftsworker who will make the products. Technicians work under the immediate supervision of a Mechanical Engineer. They perform operational tasks of a technical nature following well-defined standards using a CAD system and electronic mail.

Course #	Course Title	Crds
CADD1102	Fundamentals of CADD	4
CADD1114	Intro to Solids & Parametric Modeling	4
CADD2214	Advanced Solids & Parametric Modeling	4
CPTR1104	Intro to Computer Tech	3
GSMS1000	Technical Mathematics	3
MCDD1102	Mech Engineering Drawing I	3
MCDD1106	Mech Engineering Drawing II	4
MCDD1120	Drafting Practices	2
MCDD1122	Geometric Dimensioning & Tolerancing	3
MCDD1124	Mechanical Drafting Applications I	3
MCDD2204	Mech Engineering Drawing III	4
MCDD2240	Machine Components & Mechanisms	3
MCDD2246	Tool Design	3
MCDD2248	CNC Application	3
MCDD2252	Mechanical Drafting Applications II	4
METC1112	Manufacturing Processes	4
ECON2210	Macroeconomics	3
ENGL1101	College Writing I	3
SOC1111	Intro to Sociology	3
	MN Transfer Electives	9

Mechanical Drafting & Design Diploma 64 Credits

M

Design Technicians use a graphic language to communicate ideas or products that must be processed, manufactured, or constructed. Students draw layouts of assembly processes, make freehand sketches and rough layouts of machine equipment and parts. They may study costs as they relate to the usefulness of designs and translate the ideas of the engineer into the working plans used in making or installing a product. They convey the engineer's ideas and design to the craftsworker who will make the products. Technicians work under the immediate supervision of a Mechanical Engineer. They perform operational tasks of a technical nature following well-defined standards using a CAD system and electronic mail.

Course #	Course Title	Crds
CADD1102	Fundamentals of CADD	4
CADD1114	Intro to Solids & Parametric Modeling	4
CADD2214	Advanced Solids & Parametric Modeling	4
CPTR1104	Intro to Computer Tech	3
GSCO1102	Applied Communications	3
GSMS1000	Technical Mathematics	3
MCDD1102	Mech Engineering Drawing I	3
MCDD1106	Mech Engineering Drawing II	4
MCDD1120	Drafting Practices	2
MCDD1122	Geometric Dimensioning & Tolerancing	3
MCDD1124	Mechanical Drafting Applications I	3
MCDD2204	Mech Engineering Drawing III	4
MCDD2240	Machine Components & Mechanisms	3
MCDD2246	Tool Design	3
MCDD2248	CNC Application	3
MCDD2252	Mechanical Drafting Applications II	4
METC1112	Manufacturing Processes	4
	Free Electives	7

Medical Administrative Assistant AAS 68 Credits

M W DE

The Medical Administrative Assistant AAS program prepares students to work in a variety of medical settings, handling all types of administrative duties for private practice, hospitals and clinics. This program offers a broad foundation of knowledge and skills, expanding the traditional role of the medical secretary through the addition of liberal arts classes as preparation for leadership roles.

Graduates of this program are highly-trained office specialists who are prepared to accept responsibility for the coordination of medical office functions and patient billing processes. Successful medical administrative assistants have excellent communication skills and exhibit a high degree of professionalism.

All courses in the program incorporate the skills needed for employment in the medical administrative assistant profession.

Course #	Course Title	Crds
<u>Prerequisite:</u>		
ADMS1100	Keyboarding I	3
<u>Required:</u>		
ACCT1012	Prin of Bookkeeping	3
ADMM1122	Medical Office Procedures	4
ADMM1130	Medical Transcription	4
ADMM1140	Medical Language Applications	3
ADMM1150	Medical Billing/Insurance	4
ADMM1152	Outpatient Coding	4
ADMM2122	Medical Office Management	3
ADMM2270	Medical Office Simulation	2
ADMS1116	Business Communications I	3
ADMS2124	Computer Technology Information	3
CPTR1104	Intro to Computer Tech	3
GSMS1104	Intro to Anatomy & Physiology	3
HLTH1106	Medical Terminology	2

HLTH2208 Pathophysiology	3
ENGL1101 College Writing I	3
PSYC2222 Developmental Psychology	3
SPCH1114 Intro to Public Speaking	3
MN Transfer Electives	9
Restricted Electives	6

Medical Coding & Insurance Certificate 27 Credits M W DE WE

The Medical Coding and Insurance Certificate program prepares students in many of the procedures associated with billing for medical services. Students receive training in medical billing processes including patient account management, diagnosis and procedure coding, and medical insurance claim completion and processing. The program focuses on coding and insurance procedures for the medical office.

Medical coding involves using nationally recognized coding systems to classify procedures and diagnoses related to medical treatment. The codes provide information that is used in insurance claims processing.

Many different types of insurance programs are handled in the medical office. Students are trained in claims processes of many insurance programs/plans such as Medicare, Medicaid and TRICARE, profit and nonprofit third-party payers, workers' compensation packages and disability coverage. Graduates of the program may be eligible to take several of the national coding certification exams.

Courses in the program incorporate the skills needed for employment in the coding and insurance departments of medical facilities.

Course #	Course Title	Crds
ACCT1012	Prin of Bookkeeping	3
ADMM1134	Medical Language Applic	2
ADMM1150	Medical Billing/Insurance	4
ADMM1152	Outpatient Coding	4
ADMM2252	Advanced Coding	3
CPTR1104	Intro to Computer Tech	3
GSMS1104	Intro to Anatomy & Physiology	3
HLTH1106	Medical Terminology	2
HLTH2208	Pathophysiology	3

Medical Laboratory Technician AS 64 Credits F

In cooperation with affiliate hospitals, the college offers a two-year program for training Medical Laboratory Technicians. The curriculum includes three semesters on campus of general education, science and medical laboratory technician courses, and one semester (24 weeks) in a clinical experience at one of the three affiliate hospital laboratories. Upon completion of the program students are prepared for the MLT National Board of Registry certification exam and employment in hospital, clinic and commercial labs, blood donor facilities, instrument sales, and education and research facilities. Graduates may articulate to a four-year institution to receive a Bachelor of Science degree in medical technology.

Individuals entering the program must complete a background check required by the Minnesota Human

Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

ESSENTIAL TECHNICAL STANDARDS EXPECTED OF ENTRY LEVEL MLT STUDENTS

Prior to entering the MLT Clinical experience, it is the responsibility of the student to become familiar with the essential technical standards required for successful completion of the A.S. degree in the Medical Laboratory Technician program. The success of the student is based on these technical standards but is dependent on academic standards as well. Academic standards must be met prior to admission to the clinical experience. Students are asked to read the following standards which are necessary for student success in the clinical experience at an affiliate.

Essential Function: Observation
Description: Use of the senses
Examples: Recognize and grade agglutination reactions; Palpate blood vessels

Essential Function: Communication
Description: Speech; Reading; Writing
Examples: Interact with patients and other members of the health care team; Comprehension of procedure manuals

Essential Function: Motor
Description: Physical ability; Coordination; Stamina
Examples: Operation of manual and automated equipment; Performance of venipuncture

Essential Function: Intellectual/conceptual
Description: Ability to solve problems
Examples: Measuring, calculating, reasoning, analyzing, prioritizing, and synthesis of data

Essential Function: Behavioral/social
Description: Emotional stability
Examples: Functions effectively under stress; displays flexibility

Course #	Course Title	Crds
MLT1110	Prin/Proc Phlebotomy	2
MLT2217	Clin Hematology	3
MLT2218	Clin Urinalysis	1
MLT2219	Clin Chemistry/Sp Chem	3
MLT2220	Clin Blood Bank	2
MLT2221	Clin Microbiology	3
MLT2228	Clin Parasit/Mycol	1
MLT2229	Phlebot/Review	1
MLT2230	Clinical Applications	1
BIOL1125	Basic Immunology	2
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
BIOL2266	Diagnostic Microbiology	5
CHEM1101	Prin of General Chemistry	4
CHEM1104	Medical Chemistry	4
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
ZOO1122	Hematology & Coag	4
ZOO1123	Immunohematology	3
ZOO1126	Urinalysis/Body Fluids	2
MN Transfer Electives		11

Medical Office Assistant Diploma 35 Credits M W DE

Medical office assistants are highly-trained office specialists who participate in the coordination of medical office functions including patient appointment scheduling, telephone communications, medical record maintenance, medical transcription and patient billing processes. Successful medical office assistants have excellent communication skills

and exhibit a high degree of professionalism. Additional certificates available include Medical Coding/Insurance and Medical Transcription.

All courses in the program incorporate the skills needed for employment in the medical office assistant profession.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
ADMS1100	Keyboarding I	3

<u>Required:</u>		
ADMM1122	Medical Office Procedures	4
ADMM1130	Medical Transcription	4
ADMM1140	Medical Language Applications	3
ADMM1150	Medical Billing/Insurance	4
ADMM1152	Outpatient Coding	4
ADMM2270	Medical Office Simulation	2
ADMS1116	Business Communications I	3
CPTR1104	Intro to Computer Tech	3
GSMS1104	Intro to Anatomy & Physiology	3
HLTH1106	Medical Terminology	2
HLTH2208	Pathophysiology	3

Medical Transcription Certificate 29 Credits M W DE

A medical transcriptionist is a medical language specialist who prepares a variety of medical reports and documents for inclusion in patients' medical records. Medical transcriptionists must possess a vast knowledge of the medical field and its associated terminology, as well as a high degree of computer and written communication skills.

All courses in the program incorporate the skills needed for employment as a medical transcriptionist. Graduates of this program may be eligible to write the national exam for certified medical transcriptionists.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
ADMS1100	Keyboarding I	3

<u>Required:</u>		
ADMM1130	Medical Transcription	4
ADMM1140	Medical Language Applications	3
ADMM2230	Adv Medical Transcription	4
ADMS1104	Skillbuilding	1
ADMS1110	Word Processing	3
ADMS1116	Business Communications I	3
CPTR1104	Intro to Computer Tech	3
GSMS1104	Intro to Anatomy & Physiology	3
HLTH1106	Medical Terminology	2
HLTH2208	Pathophysiology	3

Music AFA 64 Credits F

The Associate in Fine Arts in Music is designed to provide a means for music students to pursue a path with seamless transition to a four-year music degree and to be best prepared for a degree and/or career in music. The AFA emphasizes a fine arts focus within a discipline area of study, and offers students preparation for fine arts study at the university level. The AFA in Music at MSCTC allows for a choral or instrumental emphasis, and ensures that students will have the necessary coursework to prepare for advanced studies in music.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
MUSC1114	Beg Class Piano	2
OR		
MUSC2291	Individual Piano Lessons	2
MUSC1121	Musicianship I	3
MUSC1122	Musicianship II	3
MUSC1123	Sight Singing & Ear Training I	1
MUSC1124	Sight Singing & Ear Training II	1
MUSC2223	Sight Singing & Ear Training III	1
MUSC2224	Sight Singing & Ear Training IV	1
MUSC2231	Comprehensive Musicianship III	3
MUSC2232	Comprehensive Musicianship IV	3
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
MATH1100	World of Math	3
OR		
MATH1114	College Algebra	4
	MN Transfer Electives	21
	Music Electives	2
	Participation in Ensembles	8
	Private Voice/Instrument Lessons	6

Ensemble Participation Courses:

MUSC1135	Voice Ensemble	1
MUSC1141	Concert Choir	1
MUSC1162	Jazz Ensemble	1
MUSC1164	Concert Band	1
MUSC1168	Pep Band	1

Nanoscience Technology AAS 72 Credits M

Nanoscience is a field of study involving the areas of chemistry, biology, engineering and physics. It studies the composition, structure, properties and behavior of material at the molecular and atomic level. Research, observation, measurement and manipulation occur at the nanometer range. A nanometer is one billionth of a meter. Visualize approximately 80,000 nanometers being the diameter of a human hair.

Nanotechnology is the purposeful design, manufacturing and production of a product at the nanoscale, which has useful applications in our world. Nanostructures can fit together into larger structures to produce items such as microelectronics, microsensors, and micromachines.

ADMISSIONS PROCESS:

Due to high interest in the Nanoscience Technology program, as well as limited space available, there will be a selection process for students to advance to the second year of the program. A majority of the criteria for selection will be based upon the first two semesters of coursework. Courses taken during this time are mostly general education courses, which may also be applied to an Associate of Arts degree. Additional application materials will be sent to students who apply to the Nanoscience Technology program.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
NANO1101	Fundamentals of Nanoscience I	3
NANO1102	Fundamentals of Nanoscience II	3
NANO1197	Industry Internship Experience I	1
NANO2205	Laboratory Instrumentation	6
NANO2207	Nanobiotechnology & Nanobiomedicine	3
NANO2208	Nanomaterials and Coatings	3
NANO2209	Thin Film Technology	3
NANO2210	Semiconductor Fabrication	3
NANO2211	Manufacturing Quality Assurance	3
NANO2212	Surface & Thin Film Analysis Techniques	3
NANO2231	Industry Internship Experience II	2
NANO2232	Industry Internship Experience III	5
*CHEM180	Intro to Organic/Biochem-MSUM	4
*CHEM185	Organic/Biochemistry Lab-MSUM	1
BIOL1111	General Biology I	4
CHEM1100	Fund Concepts Chemistry	3
ENGL1101	College Writing I	3

ENGL1201 Technical Writing	3
MATH1114 College Algebra	4
MATH1213 Intro to Statistics	4
PHYS1106 Fund of Physics - Mechanics	3
Restricted Electives	2

Network Communication
AS 64 Credits
F

The A.S. in Network Communication is a computer science oriented degree designed to prepare students for a career in technological communication. The degree is designed to suit the student who wishes to enter the workforce upon graduation as well as the student who plans to transfer to a four-year college or university. The program offers a balance of general education courses and courses specific to preparing the student for a career in technological communication.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
BUS1120	Spreadsheet & Database Concepts	3
BUS2202	Mgmt Information Sys	3
CSCI1121	Computer Science I	4
CSCI1122	Computer Science II	4
CSCI1205	Network Fundamentals	4
CSCI1206	Router Theory/Technology	3
CSCI1207	Adv Routing & Switching	3
CSCI1208	Adv Proj Based Learning	3
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
MATH1114	College Algebra	4
SPCH1114	Intro to Public Speaking	3
MN Transfer Elective		17
Free Elective		1

Nursing
(Generic Option)
Associate Degree (RN) 64 Credits
D F W

The Associate Degree Nursing Program is designed to prepare registered nurses to deliver nursing care in a variety of settings. The graduating nurse will be able to provide nursing care in the hospital, long-term care, clinics, community health, and other health-related facilities. Upon completion of the nursing program, an Associate of Science Degree is awarded by the college. Nursing graduates may apply to take the National Council Licensing Exam-RN (NCLEX-RN) following graduation. The Fergus Falls, Detroit Lakes and Wadena campuses are offering the two-year generic program. This program is designed for students with no previous nursing experience.

Individuals entering the program must annually complete a background check required by the Minnesota Human Services licensing division.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisites:</u>		
CPTR1100	Fund Computer Concepts	1
HLTH1121	Nursing Assistant-Home Health Aide	4
MATH0090	Introductory Algebra	3
<u>Required:</u>		
NURS1404	Nsg Fundamentals I	4
NURS1414	Nsg Fundamentals II	1
NURS1415	Nursing Clinical I	2
NURS1424	Reproductive Health	1
NURS1434	Holistic Nursing I	1
NURS1444	Holistic Nursing II	2

NURS2426	Reproductive Disorders	2
NURS2435	Nursing Clinical II	5
NURS2436	Restorative Nursing I	1
NURS2445	Nursing Clinical III	5
NURS2446	Restorative Nursing II	2
NURS2454	Holistic Nursing III	2
NURS2455	Advanced IV Therapy	1
NURS2456	Restorative Nursing III	2
NURS2464	Nursing Leadership	1
NURS2466	Mental Health Nursing	2
BIOL2202	Principles Nutrition	3
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
BIOL2257	Medical Microbiology	3
CHEM1100	Fund Concepts Chemistry	3
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
OR		
ENGL2230	Environmental Literature	3
ENGL2239	Nature Writers	3
OR		
PSYC2222	Developmental Psychology	3
SOC1111	Intro to Sociology	3

Nursing
(Mobility Option)
Associate Degree (RN) 32 Credits
D F M W

The LPN to Associate Degree RN mobility option is designed for LPNs seeking to become registered nurses. This option is offered on all four MSCTC campuses. Accepted students take a two-credit Role Transition course in the summer and then join the Generic Associate Degree nursing students in the second year of the nursing program. The Associate Degree Nursing Program is designed to prepare registered nurses to deliver nursing care in a variety of settings. The graduating nurse will be able to provide nursing care in the hospital, long-term care, clinics, community health, and other health-related facilities. Upon completion of the nursing program, an Associate of Science Degree is awarded by the college. Nursing graduates may apply to take the National Council Licensing Exam-RN (NCLEX-RN) following graduation.

Individuals entering the program must annually complete a background check required by the Minnesota Human Services licensing division.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisites:</u>		
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
BIOL2257	Medical Microbiology	3
CHEM1100	Fund Concepts Chemistry	3
CPTR1100	Fund Computer Concepts	1
ENGL1101	College Writing I	3
ENGL1102	College Writing II	3
PSYC2222	Developmental Psychology	3

<u>Required:</u>		
NURS2410	Role Transition	2
NURS2426	Reproductive Disorders	2
NURS2435	Nursing Clinical II	5
NURS2436	Restorative Nursing I	1
NURS2445	Nursing Clinical III	5
NURS2446	Restorative Nursing II	2
NURS2455	Advanced IV Therapy	1
NURS2456	Restorative Nursing III	2
NURS2464	Nursing Leadership	1
NURS2466	Mental Health Nursing	2
BIOL2202	Principles Nutrition	3
OR		
ENGL2230	Environmental Literature	3
ENGL2239	Nature Writers	3

SOC1111 Intro to Sociology 3

**Paralegal
AAS 66 Credits
D DE**

This program prepares graduates for work under the supervision of an attorney with a focus on real estate, estate planning and probate and in a variety of other legal specialty areas, such as civil litigation and family law. Students will study theory as it applies to the law; research statutes, case law and court rules; and prepare legal documents. The student will also learn to analyze procedural and substantive legal problems, manage case loads and interview clients.

Course #	Course Title	Crds
<u>Prerequisites:</u>		
ADMS1100	Keyboarding I	3

<u>Required:</u>		
ACCT1012	Prin of Bookkeeping	3
ACCT1120	Business Law	3
ADML1126	Criminal, ADR, Appellate	3
ADML2222	Legal Terminology	2
CPTR1104	Intro to Computer Tech	3
GSWS1102	Contemporary Career Search	1
HRES1122	Intro to Human Resources	3
PARA1101	Intro to Paralegal	3
PARA1102	Research & Writing I	3
PARA1106	Wills, Trusts & Probate	3
PARA1110	Torts for Paralegal	3
PARA1112	Legal Ethics for the Paralegal	3
PARA2202	Research & Writing II	3
PARA2204	Real Property	3
PARA2210	Advanced Paralegal Practices	3
PARA2212	Family Law	3
ENGL1101	College Writing I	3
PSCI1113	State and Local Government	3
PSCI2210	Judicial Politics	3
PSYC1200	General Psychology	3
SPCH1114	Intro to Public Speaking	3
	MN Transfer Electives	3
	Free Electives	3

**Pharmacy Technology
AAS 60 Credits
W DE**

The Pharmacy Technician works as an assistant to a Registered Pharmacist, assisting or relieving the Pharmacist in routine technical and clerical duties and functioning in strict accordance with standard written procedures and guidelines under the supervision of the professional Pharmacist. A.A.S. graduates have enhanced potential for upward progression in the career of Pharmacy, as the general education component gives the student a well-rounded foundation of knowledge. Students, using their own laptop computers, learn how to access patient profiles, input drug orders, and print prescription labels. They learn how to fill prescriptions and aseptic technique for intravenous drug admixture in the college's state-of-the art teaching lab. Fulfilling the role of a Pharmacy Technician allows the Pharmacist more time for patient care in regards to medication treatment.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Course #	Course Title	Crds
----------	--------------	------

CPTR1104 Intro to Computer Tech 3
GSSI1104 Human Relations 3

GSMS1110 First Aid / CPR 1
OR
GSWS1102 Contemporary Career Search 1

HLTH1106 Medical Terminology 2
PHRM1001 Fund Concepts of Pharmacy 3
PHRM2001 Pharmacy Prin / Prac I 4
PHRM2002 Pharmacy Prin / Prac II 5
PHRM2004 Drug Properties/Distribution 3
PHRM2010 Experiential / Hospital 3
PHRM2012 Experiential / Retail 3
BIOL2230 Human Anatomy & Phys I 3
BIOL2232 Human Anatomy & Phys II 3
BIOL2257 Medical Microbiology 3
CHEM1100 Fund Concepts Chemistry 3
ENGL1101 College Writing I 3
MATH1102 Finite Math 3
PSYC1200 General Psychology 3
SPCH1114 Intro to Public Speaking 3
Critical Thinking Electives (MNTC Goal Area 2) 3
Restricted Electives 3

**Pharmacy Technology
Diploma 36 Credits
W DE**

The Pharmacy Technician works as an assistant to a Registered Pharmacist, assisting or relieving the Pharmacist in routine technical and clerical duties and functioning in strict accordance with standard written procedures and guidelines under the supervision of the professional Pharmacist. Students, using their own laptop computers, learn how to access patient profiles, input drug orders, and print prescription labels. They learn how to fill prescriptions and aseptic technique for intravenous drug admixture in the college's state-of-the art teaching lab. Fulfilling the role of a Pharmacy Technician allows the Pharmacist more time for patient care in regards to medication treatment.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Course #	Course Title	Crds
CPTR1104	Intro to Computer Tech	3
GSMS1104	Intro to Anatomy & Physiology	3
GSMS1110	First Aid / CPR	1
OR		
GSWS1102	Contemporary Career Search	1
GSSI1104	Human Relations	3
HLTH1106	Medical Terminology	2
PHRM1001	Fund Concepts of Pharmacy	3
PHRM2001	Pharmacy Prin / Prac I	4
PHRM2002	Pharmacy Prin / Prac II	5
PHRM2004	Drug Properties/Distribution	3
PHRM2010	Experiential / Hospital	3
PHRM2012	Experiential / Retail	3
CHEM1100	Fund Concepts Chemistry	3

**Phlebotomy Technician
Certificate 10 Credits**

F

The MSCTC Phlebotomy Technician program prepares students to properly perform phlebotomy (venipuncture and capillary blood) collection and processing in a professional manner. This program also trains students to become proficient and multi-skilled in point-of-care (bedside) testing, computer and communication skills. Nurse assistant home health aide training enhances the student's knowledge of patient care and increases his/her marketability in the health care field. Phlebotomy Technicians are employed by hospital and clinic labs, insurance companies, donor blood facilities, and home health care.

The program is completed in one semester (fall) and includes a three-week (120-hour) clinical experience under supervision in an affiliate hospital/clinic laboratory. Students must attain a 2.0 GPA or better and a grade of "C" or better is required in MLT1110 Principles and Procedures of Phlebotomy and MLT1112 Clinical Phlebotomy. Upon completion of the program, graduates may elect to complete the national certification exam for Phlebotomy Technicians.

Individuals entering the program must complete a background check required by the Minnesota Human Services Licensing division. Individual who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Phlebotomy Technician Application Procedure:
Interested applicants should have a high school or GED diploma and apply to the MSCTC student services office. For additional information, contact the program director at 218.736.1592.

Course #	Course Title	Crds
HLTH1106	Medical Terminology	2
MLT1110	Prin/Proc Phlebotomy	2
MLT1112	Clinical Phlebotomy	3
	Technical Electives	3

Plumbing Technology AAS 64 Credits M W

The Plumbing program prepares the student to begin a career in plumbing and pipe fitting. Coursework provides the student with technical understanding, skills development and integrates theory with practical experience. Through the Plumbing program, the student develops skills in piping techniques and procedures, plumbing and piping systems, residential and commercial system installations, blueprint reading and isometric interpretation. The successful graduate is eligible for 1,000 hours on their apprenticeship card and employment at an advanced apprenticeship level in a variety of businesses found in rural and metropolitan areas.

Course #	Course Title	Crds
GSCO1102	Applied Communications	3
OR		
GSSI1104	Human Relations	3
PLBG1102	Piping Trades/Job Safety	2
PLBG1104	Bldg Sewers/Drainage Sys	3
PLBG1108	Plumbing/Piping Drawings	2
PLBG1110	Copper Pipe Procedures	2
PLBG1112	Plastic Pipe Procedures	2
PLBG1114	Steel Pipe Procedures	2
PLBG1116	Plumbing Systems	3
PLBG1120	Plumbing Installation	3
PLBG1124	Plumbing Field Internship	3
OR		
PLBG1140	Plumbing Service Learning Project	3
BIOL1107	Env Science Issues	3
BIOL1108	Env Science Issues Lab	1

ENGL1101	College Writing I	3
MATH1100	World of Math	3
PHIL1201	Ethics	3
SOC1111	Intro to Sociology	3
	Technical Electives	23

Plumbing Technology Diploma 36 Credits M W

The Plumbing program prepares the student to begin a career in plumbing and pipe fitting. Coursework provides the student with a technical understanding and skills development. Coursework integrates theory and practical experience. Through the Plumbing program, the student develops skills in water systems, piping procedures, plumbing and piping systems, residential and commercial system installations, blueprint reading and sketching, and heating systems installations. The successful graduate is eligible for 1,000 hours on their apprenticeship card and employment in an advanced apprenticeship level in a variety of businesses found in rural and metropolitan areas.

Course #	Course Title	Crds
GSCO1102	Applied Communications	3
OR		
GSSI1104	Human Relations	3
PLBG1102	Piping Trades/Job Safety	2
PLBG1104	Bldg Sewers/Drainage Sys	3
PLBG1108	Plumbing/Piping Drawings	2
PLBG1110	Copper Pipe Procedures	2
PLBG1112	Plastic Pipe Procedures	2
PLBG1114	Steel Pipe Procedures	2
PLBG1116	Plumbing Systems	3
PLBG1120	Plumbing Installation	3
PLBG1124	Plumbing Field Internship	3
OR		
PLBG1140	Plumbing Service Learning Project	3
	Restricted Electives	11

PowerSports Technology Diploma 34 Credits D

Students who wish to become skilled PowerSports mechanics must be capable of diagnosing mechanical failures quickly and accurately if they are to be in a position to repair the job at a fair salary return. Most types of two- and four-cycle small engines that are presently used to power lawn mowers, snowblowers, generators, garden tractors, rototillers, snowmobiles, ATVs and personal watercraft will be covered. Students who perform satisfactorily may find employment as service technicians, sales personnel, and factory representatives or they may wish to enter business for themselves.

This program requires a mechanical aptitude, the ability to read and comprehend technical service manuals, to understand and perform a variety of diagnostic procedures and to work well with fellow employees and with customers.

Course #	Course Title	Crds
CPTR1100	Fund Computer Concepts	1
GSMS1110	First Aid / CPR	1
GSWS1102	Contemporary Career Search	1
ODPR1102	Outdoor Power Equip Theory	5
ODPR1104	ODPR Engine Service Lab I	4
ODPR1106	ODPR Fuel/Electrical Srv Lab II	2
ODPR1108	Snow Fuel/Chassis/Pwrtrn Lab III	3
ODPR1110	Adv Eng & Rltd Pwr Equip Thry	5

ODPR1112Adv Eng, Electrical & Pwrtrn Lab	4
ODPR1114Related Power Equip Srvc Lab	3
Restricted Electives	5

Diploma 47 Credits D F W

Practical Nursing AAS 63 Credits D F M W

The Practical Nursing program prepares the student to practice within the scope of practical nursing under the supervision of a registered nurse. The student is taught to use the nursing process at the practical nurse level in the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in health status, and how to administer prescribed medication and treatments. The student will receive supervised learning experience in caring for individuals in a variety of health care settings, such as hospitals, long-term care facilities, and physician clinic settings to name a few examples. Minnesota State Community & Technical College offers an Associate in Applied Science degree in practical nursing on all four campuses. Students may choose to complete the Diploma practical nursing track on the Detroit Lakes, Fergus Falls, and Wadena campuses. After successful completion of either track, graduates are eligible to apply to take the National Council Licensure Examination for the Practical Nurse. The Minnesota Board of Nursing has officially approved the Practical Nursing Program on all four campuses of MSCTC.

Students applying to the practical nursing program must:

- * have a high school GPA of 2.5 or greater
- OR
- * have a GED score of 500 or greater
- OR
- *have earned 12 or more college credits, with a GPA of 2.5 or greater
- *have completed the background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Prerequisites:

1. ACCUPLACER testing in math, reading, and writing. Any needed developmental courses must be completed before entering any PNSG prefix course.
2. Completion of the certified Nursing Assistant or evidence of NA course completion within last five years.
3. Completion of CPTR1100 or successful test out of the course.
4. CPR for Health Care Providers, or equivalent, is required prior to taking any nursing courses.

Course #	Course Title	Crds
PNSG1200	Concepts of Nursing	2
PNSG1207	Health Promotion I	5
PNSG1209	Family Wellness	3
PNSG1214	Nursing Pharmacology	2
PNSG1216	PN Clinical I	5
PNSG1217	Health Promotion II	4
PNSG1220	Psychosocial Nursing	3
PNSG1223	Health Promotion III	4
PNSG1226	PN Clinical II	4
PNSG1234	Nursing Roles	1
PNSG1236	Practicum	2
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
ENGL1101	College Writing I	3
PSYC2222	Developmental Psychology	3
	MN Transfer Electives	15
	Practical Nursing Elective	1

Practical Nursing

The Practical Nursing program prepares the student to practice within the scope of practical nursing under the supervision of a registered nurse. The student is taught to use the nursing process at the practical nurse level in the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in health status, and how to administer prescribed medication and treatments. The student will receive supervised learning experience in caring for individuals in a variety of health care settings, such as hospitals, long-term care facilities, and physician clinic settings to name a few examples. Minnesota State Community & Technical College offers an Associate in Applied Science degree in practical nursing on all four campuses. Students may choose to complete the Diploma practical nursing track on the Detroit Lakes, Fergus Falls, and Wadena campuses. After successful completion of either track, graduates are eligible to apply to take the National Council Licensure Examination for the Practical Nurse. The Minnesota Board of Nursing has officially approved the Practical Nursing Program on all four campuses of MSCTC.

Students applying to the practical nursing program must:

- * have a high school GPA of 2.5 or greater
- OR
- * have a GED score of 500 or greater
- OR
- *have earned 12 or more college credits, with a GPA of 2.5 or greater
- *have completed the background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Prerequisites:

1. ACCUPLACER testing in math, reading, and writing. Any needed developmental courses must be completed before entering any PNSG prefix course.
2. Completion of the certified Nursing Assistant or evidence of NA course completion within last five years.
3. Completion of CPTR1100 or successful test out of the course.
4. CPR for Health Care Providers, or equivalent, is required prior to taking any nursing courses.

Course #	Course Title	Crds
PNSG1200	Concepts of Nursing	2
PNSG1207	Health Promotion I	5
PNSG1209	Family Wellness	3
PNSG1214	Nursing Pharmacology	2
PNSG1216	PN Clinical I	5
PNSG1217	Health Promotion II	4
PNSG1220	Psychosocial Nursing	3
PNSG1223	Health Promotion III	4
PNSG1226	PN Clinical II	4
PNSG1234	Nursing Roles	1
PNSG1236	Practicum	2
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
ENGL1101	College Writing I	3
PSYC2222	Developmental Psychology	3

Radiologic Technology AAS 86 Credits D DE

The Radiologic Technology program prepares individuals to perform various radiologic procedures. The Radiologic Technologist instructs and positions patients, manipulates radiographic equipment, adjusts exposure factors, provides radiation protection for patient and self, develops

radiographic images, evaluates the quality of finished radiographs, and carries out activities associated with quality control. The Radiologic Technologist carries out these functions under the supervision, or upon the direction of a registered Radiologic Technologist.

Graduates of the Radiologic Technology program are eligible for the national certification exam administered by the American Registry of Radiologic Technologists. Successful completion of this exam qualifies the graduate as a Registered Radiologic Technologist.

Applicant selection to enter into the major is done each Spring for the Fall term. The application deadline is January 15, with selection to be completed by mid-April.

The selection of students into the Radiologic Technology Program is done on a point system using the Application Assessment Sheet to rank applicants comparatively based on course grades and GPA.

Individuals entering the program must complete a background check required by the Minnesota Human Services licensing division. Individuals who do not receive a clear background check may participate in the program, but may not be allowed to participate in clinical and/or field experience courses.

Course #	Course Title	Crds
<u>Prerequisites:</u>		
CPTR1100	Fund Computer Concepts	1
HLTH1106	Medical Terminology	2

<u>Required:</u>		
RADT1108	Intro to Rad Tech/Pat Care	3
RADT1114	Radiographic Proc I	4
RADT1124	Radiographic Proc II	4
RADT1132	Principles of Radiobiology	4
RADT1140	Radiographic Imaging	4
RADT1144	Radiographic Procedures III	3
RADT1148	Clinical Radiography I	6
RADT1158	Clinical Radiography II	6
RADT1168	Clinical Radiography III	6
RADT2222	Imaging Equipment	3
RADT2244	Legal/Ethical Issues in Rad Tech	3
RADT2248	Clinical Radiography IV	6
RADT2250	Radiographic Pathology	3
RADT2258	Clinical Radiography V	7
RADT2280	Board Review	2
BIOL2230	Human Anatomy & Phys I	3
BIOL2232	Human Anatomy & Phys II	3
CHEM1100	Fund Concepts Chemistry	3
ENGL1101	College Writing I	3
MATH1114	College Algebra	4
PHYS1105	Fundamental Concepts in Physics	3
PSYC1200	General Psychology	3

Refrigeration and Air Conditioning Diploma 64 Credits M

Students in this program work with both commercial and residential refrigeration, heating, ventilating, and air conditioning equipment (HVAC). This comprehensive background together with shop skills in layout, estimating, installation, and repair qualifies graduates to enter one of the fastest-growing industries. Employment exists with manufacturers, engineers, contractors, and specialized service firms.

Students learn to research and develop applications of more efficient, cost-effective equipment and procedures. Many new, exciting, energy-saving innovations are being developed. Technicians train in this industry with providing the technology to control the environment in any enclosed area, from a home to a space capsule. This includes controlling a desired temperature, humidity which can be

increased or decreased, and aid filtered and cleaned of pollutants. This know-how to install and maintain special environments for people, products, and perishables is essential today.

Course #	Course Title	Crds
GSCO1102	Applied Communications	3
GSMS1000	Technical Mathematics	3
REFR1102	Refrigeration Principles	3
REFR1104	Refrigeration Lab	4
REFR1106	Electrical Fundamentals	3
REFR1108	Electrical Lab	3
REFR1110	Refrig, A/C & Htg Prin	3
REFR1112	Refrig, A/C & Htg Lab	3
REFR1114	Refrigeration Electrical Circuits	4
REFR2202	Commercial Refrig & A/C Prin	4
REFR2204	Commercial Refrig & A/C Lab	3
REFR2206	Commercial Electrical Prin	3
REFR2208	Commercial Electrical Lab	3
REFR2210	Adv Refrigeration Prin	3
REFR2212	Adv Refrigeration Lab	3
REFR2214	Adv Electrical Applications	4
REFR2216	Refrigeration Internship	3
	General Studies Electives	3
	Restricted Electives	6

Sales and Marketing Diploma 32 Credits D

This program prepares graduates to enter a Sales and Marketing career. Positions are available in marketing, merchandising, selling, retailing, and service businesses. This major includes courses in computer technology, selling strategies, customer service, telemarketing, and retailing and marketing concepts.

Course #	Course Title	Crds
ACCT1108	Business Math/Calculators	3
CPTR1104	Intro to Computer Tech	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG2204	Applied Sales Techniques	3
MKTG2290	Supervised Occup Exp I	3
	Restricted Electives	8

Sales and Marketing Professional Sales Emphasis AAS 70 Credits D

This emphasis is designed to prepare students for a variety of sales and marketing careers. Positions are available in virtually every community in the USA and worldwide. A salesperson may become an expert in one type of goods and move into senior sales positions. Others may move into other related jobs such as buyers, department or store managers, or public relations. Graduates may begin their careers in retail positions with a goal of moving into "outside" sales.

Course #	Course Title	Crds
ACCT1108	Business Math/Calculators	3
ACCT1124	Spreadsheet Applications	3
CPTR1104	Intro to Computer Tech	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG2204	Applied Sales Techniques	3
MKTG2206	Sales Management	3

MKTG2290Supervised Occup Exp I	3
SALE1160 Specialty Seminars	3
SALE1162 Product Knowledge Development	3
ENGL1101 College Writing I	3
PSYC1200 General Psychology	3
SPCH1114 Intro to Public Speaking	3
MN Transfer Electives	12
Restricted Electives	13

**Sales, Marketing, and Management
AAS 70 Credits
M**

The Sales, Marketing, and Management AAS major includes marketing, management, and other business courses as well as general education courses.

This program is designed to prepare students to succeed in the marketplace. This major is designed to provide students with the skills necessary for a variety of careers in the sales, marketing, and management fields. Curriculum includes instruction in the following areas: sales, marketing, research, customer service, and small business planning. Emphasis is placed on developing skills in management decision-making, interpersonal and communication skills, problem solving, and technology skills.

In the AAS, students are also required to complete 18 credits of general education courses. Three of these courses are College Writing I, Macroeconomics, and Introduction to Public Speaking. The student chooses the remaining nine credits of general education.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1012	Prin of Bookkeeping	3
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
CPTR1104	Intro to Computer Tech	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG1116	Advertising	3
MKTG2200	Prin of Management	3
MKTG2204	Applied Sales Techniques	3
MKTG2230	Marketing Research	3
MKTG2232	Marketing Management	3
MKTG2236	Small Business Mgmt	3
ENGL1101	College Writing I	3
SPCH1114	Intro to Public Speaking	3
MN Transfer Electives		12
Restricted Electives		10

**Sales, Marketing, and Management
Diploma 70 Credits
M**

The Sales, Marketing, and Management diploma major places an emphasis on marketing, management, and other business courses. General education courses are not required.

This program is designed to prepare students to succeed in the marketplace of the 21st century. This major is designed to provide students with the essential skills necessary for a variety of careers in the sales, marketing, and management fields. Curriculum includes instruction in the following areas: sales, marketing, research, customer service, and small business planning. Emphasis is placed on developing skills in management decision-making, interpersonal and communication skills, problem solving, and technology skills.

Students have the opportunity to apply concepts they have learned in introductory marketing and management courses.

Particular emphasis is placed on applying these skills through the use of computer technology.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT1012	Prin of Bookkeeping	3
ACCT1108	Business Math/Calculators	3
ACCT1120	Business Law	3
CPTR1104	Intro to Computer Tech	3
GSCO1102	Applied Communications	3
GSSI1112	Contemporary Economics	3
MKTG1100	Prin of Marketing	3
MKTG1106	Principles of Sales	3
MKTG1110	Customer Service	3
MKTG1112	Retailing	3
MKTG1116	Advertising	3
MKTG2200	Prin of Management	3
MKTG2204	Applied Sales Techniques	3
MKTG2222	Human Resource Mgmt	3
MKTG2230	Marketing Research	3
MKTG2232	Marketing Management	3
MKTG2234	Computer Marketing Applic	3
MKTG2236	Small Business Mgmt	3
Restricted Electives		16

**Supervision and Leadership
AS 64 Credits
CC**

The Supervision and Leadership program prepares working supervisors and team leaders with a knowledge base in the practical application of management principles and practices. Core elements include: leadership, supervision, accounting, human resource policies, small group behavior and communication, performance management, and project development.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ACCT2211	Financial Accounting I	3
ACCT2212	Financial Accounting II	3
ADMS1116	Business Communications I	3
ATEC2238	Quality Planning & Control	3
CPTR1104	Intro to Computer Tech	3
METC2260	Project Management	3
MKTG1110	Customer Service	3
MKTG1120	Supervisory Leadership	3
MKTG2222	Human Resource Mgmt	3
SUPL2212	Linking People & Productivity	3
SUPL2214	Supervisory Ldrship Intern	3
BIOL1107	Env Science Issues	3
ECON2210	Macroeconomics	3
ENGL1101	College Writing I	3
ENGL1220	Professional & Technical Writing	3
MATH1102	Finite Math	3
MATH1207	Concepts of Applied Statistics	3
PSYC1101	Human Interaction	3
SPCH1112	Small Group Communication	3
SPCH1114	Intro to Public Speaking	3
MN Transfer Elective		1

**Supervisory Leadership
AAS 63 Credits
CC**

This program prepares working foremen, team leaders, and supervisors with a knowledge base in practices and principles of leadership, supervision and management. Core elements include: human resource policies, interpersonal communication, organizational behavior, quality and customer service issues, and industry fiscal and safety requirements.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ADMS1116	Business Communications I	3

ATEC2238 Quality Planning & Control	3
CPTR1104 Intro to Computer Tech	3
METC1152 Safety & Accident Prevent	3
METC2260 Project Management	3
MKTG1110 Customer Service	3
MKTG1120 Supervisory Leadership	3
MKTG2222 Human Resource Mgmt	3
SUPL1110 Budget & Financial Mgmt	3
SUPL1118 Lead & Facilitate Teams	3
SUPL2214 Supervisory Ldrshp Intern	3
ECON2210 Macroeconomics	3
ENGL1101 College Writing I	3
MATH1102 Finite Math	3
PHIL1201 Ethics	3
PSYC1101 Human Interaction	3
SPCH1112 Small Group Communication	3
SPCH1114 Intro to Public Speaking	3
Restricted Electives	9

**Supervisory Leadership
Certificate 30 Credits
CC**

This program prepares working foremen, team leaders, and supervisors with a knowledge base in practices and principles of leadership, supervision and management. Core elements include: human resource policies, interpersonal communication, organizational behavior, quality and customer service issues, and industry fiscal and safety requirements.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
ADMS1116	Business Communications I	3
ATEC2238	Quality Planning & Control	3
METC1152	Safety & Accident Prevent	3
METC2260	Project Management	3
MKTG1120	Supervisory Leadership	3
MKTG2222	Human Resource Mgmt	3
SUPL1110	Budget & Financial Mgmt	3
PSYC1101	Human Interaction	3
SPCH1112	Small Group Communication	3
Restricted Electives		3

**Supervisory Leadership Essentials
Certificate 18 Credits
CC**

This program prepares working foremen, team leaders, and supervisors with a knowledge base in practices and principles of leadership, supervision and management. Core elements include: human resource policies, interpersonal communication, organizational behavior, quality and customer service issues, and industry fiscal and safety requirements.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
MKTG1120	Supervisory Leadership	3
MKTG2222	Human Resource Mgmt	3
SPCH1112	Small Group Communication	3
Restricted Electives		9

**Telecommunications Engineering
Technology
AAS 72 Credits
W**

The Telecommunications Engineering Technology program is designed to prepare students to design, build, repair and maintain a wide variety of telecommunications systems and equipment. The student will become knowledgeable in central office switching, analog and digital carrier circuits, broadband design and analysis, fiber optics, coaxial and twisted pair splicing, outside plant construction, and computer applications. Training will include a combination of classroom and hands-on applications in the lab and in the practice field. Students will gain valuable experience working with a variety of hand tools and electronic test equipment including OTDR, signal level meters, CAT 5 testers, fiber optic test equipment, multimeters, and oscilloscopes.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3

<u>Required:</u>		
CVNP2210	Voice, Video & Data Convergence	4
CVNP2212	VoIP / IP Telephony	4
CVNP2220	Video Over Internet Protocol	4
CVNP2222	Voice Video Over IP Systems Project	3
ELTR1102	Circuit Analysis I	4
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1180	Communication Systems I	3
TECH1104	Data Communications	2
TECH1106	Adv Data Communications	2
TECH1120	Cabling & Termination	4
TECH1130	Fiber Optics	2
TECH2240	Broadband Sys Dsgn & Analysis I	3
TECH2250	Business Com Sys I	3
TECH2280	Central Office Fundamentals	3
TECH2290	Telecommunications Tech Intern	3
ENGL1101	College Writing I	3
MATH1114	College Algebra	4
PHIL1201	Ethics	3
PHYS1105	Fundamental Concepts in Physics	3
SPCH1114	Intro to Public Speaking	3
MN Transfer Electives		3

**Telecommunications Engineering
Technology
Diploma 66 Credits
W**

The Telecommunications Engineering Technology program is designed to prepare students to design, build, repair and maintain a wide variety of telecommunications systems and equipment. The student will become knowledgeable in central office switching, analog and digital carrier circuits, broadband design and analysis, fiber optics, coaxial and twisted pair splicing, outside plant construction, and computer applications. Training will include a combination of classroom and hands-on applications in the lab and in the practice field. Students will gain valuable experience working with a variety of hand tools and electronic test equipment including OTDR, signal level meters, CAT 5 testers, fiber optic test equipment, multimeters, and oscilloscopes.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3

<u>Required:</u>		
CVNP2210	Voice, Video & Data Convergence	4
CVNP2212	VoIP / IP Telephony	4
CVNP2220	Video Over Internet Protocol	4
CVNP2222	Voice Video Over IP Systems Project	3
ELTR1102	Circuit Analysis I	4
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4

ELTR1180 Communication Systems I	3	
GSMS1000 Technical Mathematics	3	3
GSSI1104 Human Relations	3	
TECH1104 Data Communications	2	
TECH1106 Adv Data Communications	2	
TECH1120 Cabling & Termination	4	
TECH1126 Telecom Outside Plant Const	4	
TECH1130 Fiber Optics	2	
TECH2240 Broadband Sys Dsgn & Analysis I	3	
TECH2250 Business Com Sys I	3	
TECH2280 Central Office Fundamentals	3	
TECH2290 Telecommunications Tech Intern	3	
Restricted Electives	3	

**Telecommunications Engineering
Technology
Information Systems Emphasis
AAS 72 Credits
W**

The Telecommunications Engineering Technology program is designed to prepare students to design, build, repair and maintain a wide variety of telecommunications systems and equipment. The student will become knowledgeable in central office switching, analog and digital carrier circuits, broadband design and analysis, fiber optics, coaxial and twisted pair splicing, outside plant construction, and computer applications. Training will include a combination of classroom and hands-on applications in the lab and in the practice field. Students will gain valuable experience working with a variety of hand tools and electronic test equipment including OTDR, signal level meters, CAT 5 testers, fiber optic test equipment, multimeters, and oscilloscopes.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3

<u>Required:</u>		
CPTR1108	CISCO 1	3
CPTR1118	CISCO 2	3
CPTR2200	CISCO 3	3
CPTR2208	CISCO 4	3
CVNP2210	Voice, Video & Data Convergence	4
CVNP2212	VoIP / IP Telephony	4
CVNP2220	Video Over Internet Protocol	4
CVNP2222	Voice Video Over IP Systems Project	3
ELTR1102	Circuit Analysis I	4
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1180	Communication Systems I	3
TECH1130	Fiber Optics	2
TECH2250	Business Com Sys I	3
TECH2280	Central Office Fundamentals	3
TECH2294	Telecommunications Tech Intern	2
ENGL1101	College Writing I	3
MATH1114	College Algebra	4
PHIL1201	Ethics	3
PHYS1105	Fundamental Concepts in Physics	3
SPCH1114	Intro to Public Speaking	3
MN Transfer Electives		3

**Telecommunications Engineering
Technology
Information Systems Emphasis
Diploma 64 Credits
W**

The Telecommunications Engineering Technology program is designed to prepare students to design, build, repair and maintain a wide variety of telecommunications systems and

equipment. The student will become knowledgeable in central office switching, analog and digital carrier circuits, broadband design and analysis, fiber optics, coaxial and twisted pair splicing, outside plant construction, and computer applications. Training will include a combination of classroom and hands-on applications in the lab and in the practice field. Students will gain valuable experience working with a variety of hand tools and electronic test equipment including OTDR, signal level meters, CAT 5 testers, fiber optic test equipment, multimeters, and oscilloscopes.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisite:</u>		
CPTR1104	Intro to Computer Tech	3

<u>Required:</u>		
CPTR1108	CISCO 1	3
CPTR1118	CISCO 2	3
CPTR2200	CISCO 3	3
CPTR2208	CISCO 4	3
CVNP2210	Voice, Video & Data Convergence	4
CVNP2212	VoIP / IP Telephony	4
CVNP2220	Video Over Internet Protocol	4
CVNP2222	Voice Video Over IP Systems Project	3
ELTR1102	Circuit Analysis I	4
ELTR1122	Digital I	2
ELTR1123	Digital II	3
ELTR1152	Semiconductors I	4
ELTR1180	Communication Systems I	3
GSMS1000	Technical Mathematics	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
TECH1130	Fiber Optics	2
TECH2240	Broadband Sys Dsgn & Analysis I	3
TECH2250	Business Com Sys I	3
TECH2280	Central Office Fundamentals	3
TECH2290	Telecommunications Tech Intern	3

**Telecommunications Service &
Installation Technology
Diploma 36 Credits
W**

The Telecommunication Service and Installation program prepares the student to professionally install, repair, maintain, and market telephone and cable television systems for commercial, residential, industrial, and educational customers. A mix of courses provide the student with a fundamental understanding of theories and hands-on skill development necessary to be successfully employed in the telecommunications industry. The program content includes direct/alternating current analysis, coaxial and twisted pair cable splicing, fiber optics, business communication systems, data communications, broadband communications, outside plant construction, and pole climbing. The Wadena campus of Minnesota State Community and Technical College is the only location in the State of Minnesota that offers the broadband portion of the telecommunications industry.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1104	Intro to Computer Tech	3
ELTR1102	Circuit Analysis I	4
TECH1104	Data Communications	2
TECH1110	Pole Climbing	2
TECH1120	Cabling & Termination	4
TECH1126	Telecom Outside Plant Const	4
TECH1130	Fiber Optics	2
TECH1190	Telecom Svc & Installation Intern	3
TECH2230	Telecommunications Systems	3
TECH2240	Broadband Sys Dsgn & Analysis I	3
TECH2250	Business Com Sys I	3
Restricted Electives		3

Voice & Video Over Internet Protocol

Certificate 15 Credits W

This 15-credit certificate will provide a series of courses specifically chosen to take a Telecommunications student, Computer Networking student or an industry professional into two major areas: Voice over Internet Protocol and Video over Internet Protocol. The student will learn to configure, test, install, analyze traffic, troubleshoot and maintain Voice over Internet Protocol, Video over Internet Protocol and converged networks. This certificate provides a path for students or industry professionals to enter into a variety of "cutting edge" fields in network communication.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>	
CVNP2210	Voice, Video & Data Convergence	4	
CVNP2212	VoIP / IP Telephony	4	
CVNP2220	Video Over Internet Protocol	4	
CVNP2222	Voice Video Over IP Systems Project		3

Web Development AAS 68 Credits D

A Web Developer facilitates information exchange by coordinating, compiling, and converting various media into an Internet standard format to provide accessible information and effective communication for an organization. Graduates of the Web Development program will develop and manage web sites on the Internet and corporate Intranets. They will be prepared to create and manage customer-friendly interactive web sites for individuals, small businesses, and large corporations.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>	
<u>Prerequisite:</u>			
CPTR1104	Intro to Computer Tech	3	
<u>Required:</u>			
CPTR1142	Network Essentials	3	
CSEC1102	Careers in Information Systems	1	
GSWS1102	Contemporary Career Search	1	1
INTD1104	Systems Administration	3	
INTD1108	HTML	3	
INTD1110	Intro to Web Programming	3	
INTD1112	Web Graphic Design	3	
INTD1116	Web Graphic Creation	3	
INTD1120	Internet Business Fundamentals	1	
INTD1122	Databases on the Server	4	
INTD1124	Cascading Style Sheets	3	
INTD2208	Java Script/DHTML	4	
INTD2214	Multimedia Web Design	4	
INTD2220	Advanced Web Programming	4	
INTD2230	Emerg Tech-Resrch & Feasibility	1	
INTD2232	E-Commerce Implementation	3	
INTD2234	Adv Web Site Project	3	
INTD2244	PHP Development	3	
ENGL1101	College Writing I	3	
SPCH1114	Intro to Public Speaking	3	
	MN Transfer Electives		12

Web Development Certificate 30 Credits D DE

Web Development provides students with the opportunity to use both creative and technical skills. Students in the Web Development program will learn to develop and maintain customer-friendly interactive web sites using the most sophisticated tools currently available. Students will gain a strong understanding, appreciation and practical knowledge of the processes involved in building a successful web site and e-commerce storefront. The courses in the Web

Development Certificate are aligned with the CIW (Certified Internet Webmaster) Master Designer certification.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
CPTR1142	Network Essentials	3
INTD1108	HTML	3
INTD1110	Intro to Web Programming	3
INTD1112	Web Graphic Design	3
INTD1116	Web Graphic Creation	3
INTD1120	Internet Business Fundamentals	1
INTD1124	Cascading Style Sheets	3
INTD2214	Multimedia Web Design	4
INTD2230	Emerg Tech-Resrch & Feasibility	1
INTD2232	E-Commerce Implementation	3
	General Studies Electives	3

Web Development Diploma 65 Credits D

A Web Developer facilitates information exchange by coordinating, compiling, and converting various media into an Internet standard format to provide accessible information and effective communication for an organization. Graduates of the Web Development program will develop and manage web sites on the Internet and corporate Intranets. They will be prepared to create and manage customer-friendly interactive web sites for individuals, small businesses, and large corporations.

<u>Course #</u>	<u>Course Title</u>	<u>Crds</u>
<u>Prerequisites:</u>		
CPTR1104	Intro to Computer Tech	3
<u>Required:</u>		
CPTR1142	Network Essentials	3
CSEC1102	Careers in Information Systems	1
GSCO1102	Applied Communications	3
GSSI1104	Human Relations	3
GSWS1102	Contemporary Career Search	1
INTD1104	Systems Administration	3
INTD1108	HTML	3
INTD1110	Intro to Web Programming	3
INTD1112	Web Graphic Design	3
INTD1116	Web Graphic Creation	3
INTD1120	Internet Business Fundamentals	1
INTD1122	Databases on the Server	4
INTD1124	Cascading Style Sheets	3
INTD2208	Java Script/DHTML	4
INTD2214	Multimedia Web Design	4
INTD2220	Advanced Web Programming	4
INTD2230	Emerg Tech-Resrch & Feasibility	1
INTD2232	E-Commerce Implementation	3
INTD2234	Adv Web Site Project	3
INTD2244	PHP Development	3
	General Studies Electives	3
	Restricted Electives	6

MSCTC-Fergus Falls is a partner with Lakes Country Service Cooperative (LCSC) in the delivery of Cisco Networking Academy curriculum for CCNA certification. Granted by the Cisco Networking Academy, the CCNA certification (Cisco Certified Network Associate) indicates a foundation in and apprentice knowledge of networking for the small office/home office (SOHO) market. CCNA certified professionals can install, configure, and operate LAN, WAN, and dial access services for small networks including but not limited to use of these protocols: IP, IGRP, IPX, Serial, AppleTalk, Frame Relay, VLANs, RIP, Ethernet, Access Control Lists. The partnership also provides Instructor training in Web Design, UNIX and Java™. LCSC is a Cisco Academy Training Center for seven states in the Upper Midwest.

The CCNA curriculum assumes no prior knowledge of computers or networks on the part of the students. While Cisco equipment is used to practice and reinforce certain concepts, students gain broad-based knowledge of the operation of networks, the differences between various types of networking products, how to design and troubleshoot networks, and other general topics. This certification is designed to meet employment standards for the networking industry. For additional information about CCNA certification, contact MSCTC-Fergus Falls at 218-736-1500 or Lakes Country Service Cooperative at 218-739-3273.

Business 4.0 Program MSCTC & Minnesota State University Moorhead

MSCTC-Fergus Falls and Minnesota State University Moorhead offer students a Bachelor of Science degree in business administration at MSCTC. Students complete the liberal arts requirements and pre-business courses as an MSCTC student. Upon successful completion of the Associate in Arts Degree for Business Majors with a GPA of 2.25, students may apply for admission to MSUM's Business Division. MSUM teaches the upper division courses over interactive television at MSCTC to complete the degree. The following pre-business classes should be included in the student's AA degree from MSCTC:

ACCT2211, 2212 Financial Accounting.....	6 credits
ACCT2213 Managerial Accounting	3 credits
ECON2210, 2222 Principles of Economics	6 credits
ENGL1101, 1102 College Writing	6 credits
Math1120 Applied Linear Algebra/Applied Calculus .	4 credits
Math1213 Statistics	4 credits
Bus 2150 Legal Environment of Business.....	3 credits
BUS2204 Principles of Management	3 credits
BUS2206 Principles of Marketing	3 credits
CSCI1155 Computers in Business and Society	3 credits
PSYC1200 General Psychology I	3 credits
SOC1111 Intro to Sociology.....	3 credits
SPCH1114 Public Speaking	3 credits

Study/Travel Abroad

The college offers students a study/travel abroad program wherein students register for selected spring semester courses that are tied to a trip overseas at the end of the spring term. Most recently, the study has centered on Western European history and the experience has taken students to Great Britain and France. The credits taken for both the spring semester course work and the field experience apply to the transfer curriculum portion of the associate in arts degree. Normal tuition rates apply for the credits taken. However, there are additional costs for travel, lodging, and meals. The courses and the cost of the program are announced during the fall semester. Contact an advisor or staff in the administration building for current information.

Honors Learning Community

The Associate of Arts Honors Learning Community is available for students who attend the Fergus Falls campus and who have a 24 ACT score or higher. Students in the

Special Programs

Agribusiness

The college offers the first two years of a bachelor's degree in agribusiness. There are several areas of specialization within the field such as applied economics, agricultural and food business management and agricultural industries marketing. MSCTC and the University of Minnesota, Crookston campus have joint enrollment agreements where students can complete the associate in arts degree at MSCTC and then transfer to Crookston to complete the bachelor's degree in agribusiness. Students should plan their program in consultation with an advisor. Students choosing to earn an associate in arts degree in agribusiness must complete the Minnesota transfer curriculum listed in this catalog. The following specific courses should be included in the AA degree:

MATH 1120 Applied Calculus/Linear Algebra	3 credits
MATH 1213 Statistics	4 credits
BIOL 1111 General Biology	4 credits
ACCT 2211 Financial Accounting I	3 credits
BUS 2204 Principles of Management.....	3 credits
BUS 2206 Principles of Marketing	3 credits
CHEM 1111 General Inorganic Chemistry I.....	5 credits
CSCI 1155 Computers in Business & Society	3 credits
ECON2210 Macroeconomics.....	3 credits
ECON2222 Microeconomics.....	3 credits

Cisco Training Program MSCTC & Lakes Country Service Cooperative

Honors Learning Community receive merit-based scholarships and live and learn within the group of students who are enrolled in the honors classes. The housing unit has a built-in resource library and wireless internet access. The Honors Learning Community provides an "ideal" challenging schedule from 9:00 am to 3:00 pm, offering students the opportunity to participate in music, drama, or athletics. In addition, students are encouraged to participate among more than 27 student organizations and activities on campus. Students receive highly personalized transfer advice from our specialists and will be encouraged to pursue any transfer major from Business or Engineering to Pre-med or Education.

Curricular Courses Purposes and Objectives

Business and Office Occupational Courses

The objectives of the business and office occupation curricula are:

- a. To enable students to find their place in the business world by creating and sharpening business skills.
- b. To give students the background to continue their education in business fields.
- c. To foster understanding of the economic system of the United States.
- d. To make the student aware of the opportunities available in business.

Health, Physical Education, and Recreation Courses

The objectives of the health, physical education, and recreation curricula are:

- a. To aid in the promotion and development of total physical fitness.
- b. To provide positive social and emotional experiences
- c. To increase awareness of personal and community health problems.
- d. To foster positive use of leisure time.

Students are tested and graded in class by skill tests and written knowledge tests, including information on skills, rules, and history. Some written work may be required. Lockers are furnished.

English and Literature Courses

Studies in English and literature offer students far more than standard written communication skills. Students who major in English/Literature, or who study literature during one or two courses, develop strong critical and imaginative thinking skills while growing in their appreciation for culture, creativity, and diversity. Literary studies stimulate and cultivate the imagination, thus helping students to explore, understand, and interpret the world around them and their fellow human beings. Such thinking skills help individuals to creatively develop their own thought processes and problem-solving patterns which they can carry into a variety of careers. English majors frequently enter the fields of business, law, and the media as well as education.

Music and Art Courses

The objective of the music curriculum is to provide experiences conducive to musical growth. This purpose is accomplished in three types of situations:

1. Through performance instruction, both group and individual, the student becomes acquainted with significant examples of music

literature. Such instruction leads to competency in performance, enjoyment and musical growth, and growth in self-confidence in personal relationships.

2. Through classroom instruction in fundamentals and appreciation, the student acquires a background for enjoyment of past and present music.
3. Through instruction in the theory of music, the student is given the opportunity for in-depth study.

The art curriculum offers two types of experiences:

1. Through studio drawing and painting courses, students are exposed through performance to the basis fundamentals of composition, line, value, texture, and color with an emphasis on the relationship of the whole. They are encouraged to arrive at personal solutions to artistic problems so that they may continue to develop their creative ability.
2. Through classroom courses in art appreciation, painting, sculpture, and architecture, humankind is studied in a historical context. The purpose is to understand human artistic expression, to relate it to political, social, and spiritual values of the time, to show the artist's involvement in the structure of the society in which the artist lives.

Science and Mathematics Courses

The objectives of the science and mathematics curricula are:

- a. To provide two years of study fulfilling the basis requirements of professional schools for the student who will need detailed knowledge of science and mathematics for professional pursuits.
- b. To promote scientific and mathematical literacy among students who do not major in this field.
- c. To provide basic skills and information for the improvement of vocational competence of student who complete their formal education in the community college setting.

Social Science Courses

The purposes of the courses in this area are to help students to assume roles as informed, active, and responsible citizens, and to promote understanding of other human beings in their social, political, and individual roles in society. These courses are valuable to students who complete their education in the community college setting plus those who enter many of the professional fields. Intensive work in these courses should be taken by the student who is interested in a career in law, teaching, government service, social work, social services, business, and criminal justice.

Course Descriptions



*ART170 Art Apprec: Cont & Form-MSUM 3
Visual art as reference and expression in human society; form and materials used by artists. (MSUM course)
Prerequisite(s): None

*ART455 Psychology of Art-MSUM 3
An understanding of the relationship of the fundamental principles of psychology to the arts is developed from the formal beginning of psychology to the present. (MSUM course) Prerequisite(s): *PSY113

ABCT1100 Intro to Auto Body 2 1/1/0
This course is the study of auto body safety, shop operation procedures, power and hand tool use, shop equipment applications, frame measuring instruments, service literature, intro to estimating guides, general service knowledge, professional work habits, industry standards and expectations. Prerequisite(s): None

ABCT1102 Auto Body Off Car Repair4 2/2/0
This course teaches students sheet metal repair processes used for minor auto body repairs. Instruction includes the use of tools and auto body industry equipment. Students learn skills of body filler and fiberglass repair along with corrosion protection. Environmental standards will be introduced. Prerequisite(s): Pre/Corequisite: TRNS1102

ABCT1104 Auto Body Lab I 3 0/3/0
This is a lab course in which students will build proficiency in basic auto body skills of welding, sheet metal repair, corrosion protection, rust repair, body filler and fiberglass repair. Prerequisite(s): Pre/Corequisites: TRNS1118, ABCT1102

ABCT1106 Intro to Refinishing 2 1/1/0
This course teaches students refinishing safety, use of tools and equipment surface preparation, and refinishing material application procedures. Prerequisite(s): Pre/Corequisite: TRNS1102

ABCT1110 Panel Replacement 2 1/1/0
This course covers the replacement of damaged panels using current industry procedures. Prerequisite(s): TRNS1102

ABCT1112 Auto Body Refinishing 4 1/3/0
This course teaches students preparation for overall refinishing procedures, paint mixing and color matching. It also teaches skills in spot repair, blending, and application of pinstripping and chip guard. Prerequisite(s): TRNS1102

ABCT1114 Auto Body Lab II 4 0/4/0
This is a lab course in which students will build proficiency in auto body skills of refinishing, corrosion protection, rust repair, glass repair, and welding. Prerequisite(s): ABCT1106, TRNS1118

ABCT1116 Glass and Trim 2 1/1/0
This course teaches students safe procedures for the removal, replacement and repair of movable glass. It also covers the application of various methods of attachments on auto body trim and hardware. Prerequisite(s): TRNS1102

ABCT1118 Basic Electrical 2 1/1/0
Preparation for the electronic and computer related courses that follow. The theory and operation of electricity, semi-conductors (transistors, diodes, light emitting diodes, fluorescent displays), and test instruments will be studied. Prerequisite(s): None

ABCT2202 Unibody/Frame Alignment5 2/3/0

Students study safe repair of unitized and conventional frame vehicles. Students study suspension systems and learn procedures for wheel alignment. Prerequisite(s): None

ABCT2204 Body Shop Operation 3 2/1/0
Emphasis on proper shop management procedures including inventory management, parts and repair ordering, payroll procedures, employee/employer relations, hiring/dismissal procedures, customer relations, estimating procedures, insurance procedures and insurance coverage's. Prerequisite(s): None

ABCT2206 Mechanical Components I2 1/1/0
Principles of removing and installing mechanical parts in front wheel and rear wheel drive vehicles. Students also study principles of air conditioning, evacuate and replace components and change air conditioning systems. Prerequisite(s): None

ABCT2208 Major Collision Lab I 3 0/3/0
This course is a lab course in which students build proficiency in their auto body repair skills. Emphasis in this course is on major collision repair. Students will also be expected to exhibit dependability, attitudes, and work habits, that employees expect of their employees. Prerequisite(s): None

ABCT2210 Collision Damage Repair5 2/3/0
Students learn tie down and clamping techniques, measuring and pulling procedures to repair direct and indirect damage on open and closed panels. Replacement of damaged panels is also covered. Prerequisite(s): ABCT1104, ABCT1114

ABCT2212 Mechanical Components II 2 1/1/0
Students will continue to develop skills working on replacement of mechanical components damaged in collisions. Students will learn to identify potential damage areas resulting from varied types of collisions, to be included in estimates of damage repairs. Prerequisite(s): ABCT2206

ABCT2214 Major Collision Lab II 5 0/5/0
This course is a lab course in which students will build proficiency in major collision repair and complete and spot refinishing. Prerequisite(s): ABCT2208

ABCT2216 Spot Repair & Paint Blending 2 0/2/0
This course provides a work-place like setting in which students perform spot repairs and spot repair refinishing. Emphasis in this course is on proper spot repair procedures and paint blending skills. Prerequisite(s): None

ABCT2222 Auto Body Internship 1 0/0/1
This course is designed by the student and advisor in cooperation with industry to provide an "on-the-job training" experience for the student. The student will prepare an internship plan consistent with 48 hours of internship time. The plan should reflect the internship site, student knowledge, prior course work and skills. This course will provide the student with an opportunity to integrate the skills, knowledge, and concepts gained in previous course work into an occupational experience. Prerequisite(s): Advisor approval

ACCT1012 Prin of Bookkeeping 3 2/1/0
This course covers the basic accounting cycle for service and merchandising businesses. Topics include the analyses of business transactions, recording transactions in a variety of journals, payroll procedures and the preparation of financial reports. Prerequisite(s): None

ACCT1101 Payroll 3 3/0/0 This course covers the various tax laws pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earnings records, and government payroll reports. Prerequisite(s): None	cash flows and financial statement analysis. Prerequisite(s): ACCT2211
ACCT1108 Business Math/Calculators 3 2/1/0 This course covers how to make commonly occurring business-related calculations, how to apply these calculations to accounting and other business functions, and how to use the touch system on the computer number pad keyboard. Prerequisite(s): None	ACCT2213 Managerial Accounting 3 3/0/0 This course focuses on strategic decision-making related to cost analysis and cost management. Prerequisite(s): ACCT2211
ACCT1120 Business Law 3 3/0/0 This course is an introduction to the principles of law as they apply to citizens and businesses. Topics include the court system, legal system, contract, negotiable instruments, agency and employer/employee relationship. Prerequisite(s): None	ACCT2215 Computerized Acct App I3 2/1/0 This course is an introduction to computerized accounting applications and software used in the business environment. Topics may include general ledger accounting, payroll procedures, accounts receivable, accounts payable, inventory and depreciation. Prerequisite(s): CPTR1104, ACCT2211
ACCT1124 Spreadsheet Applications 3 2/1/0 This course covers the use of a computerized spreadsheet system for accounting applications. Topics include document creation, storage and retrieval, editing, printing, creating charts, database applications, and file distribution. Prerequisite(s): CPTR1104	ACCT2216 Computerized Acct App II3 2/1/0 This course is a continuation of computerized accounting applications and software used in the business environment. Prerequisite(s): ACCT2211
ACCT2201 Financial Accounting I Lab 1 0/1/0 This course is the lab course associated with Financial Accounting I (ACCT2211). Students must be enrolled in ACCT2211 to enroll in this course. Major content will be the practical application of concepts introduced in the lecture course. Prerequisite(s): High School accounting recommended. Corequisite: ACCT2211	ACCT2222 Accred Acct ABA Review 3 3/0/0 This course serves as a capstone course covering financial accounting and financial statement preparation and reporting, auditing standards and legal liability, professional ethics, business consulting services, managerial accounting, business law, and taxation. It is also designed to prepare the student for the Comprehensive Examination for Accreditation in Accountancy, as offered by the Accreditation Council for Accountancy and Taxation (ACAT). ACAT is an affiliate of the National Society of Public Accountants. This course should be taken in the student's last semester. Prerequisite(s): ACCT2800 or satisfactory work experience
ACCT2202 Financial Accounting II Lab 1 0/1/0 This course is the lab course associated with Financial Accounting II (ACCT2212). Students must be enrolled in ACCT2212 to enroll in this course. Major content will be the practical application of concepts introduced in the lecture course. Prerequisite(s): ACCT2211; Corequisite: ACCT2212	ACCT2255 Income Tax-Individual 3 2/1/0 This course provides an explanation and interpretation of the Internal Revenue Code as applied to individual income tax returns. Topics covered include filing requirements, filing status, gross income and exclusions, business income and expenses, tax credits, and estimated taxes. Prerequisite(s): None
ACCT2203 Managerial Accounting Lab 1 0/1/0 This course is the lab course associated with Managerial Accounting (ACCT2213). Students must be enrolled in ACCT2213 to enroll in this course. Major content will be the practical application of concepts introduced in the lecture course. Prerequisite(s): ACCT2211; Corequisite: ACCT2213	ACCT2256 Income Tax-Business 3 2/1/0 This course provides an explanation and interpretation of the Internal Revenue Code as applied to sole proprietorships, partnerships, and corporations. Topics include business income, expenses, business tax credits, withholding and payment of established estate and trust tax issues. Prerequisite(s): None
ACCT2211 Financial Accounting I 3 3/0/0 Introduction to the content and concepts underlying financial statements. Course content includes study of the accounting model, financial statements, merchandise accounting, internal controls and accounting for assets. The course will focus on using accounting information for decision making. Prerequisite(s): High School accounting recommended	ACCT2291 VITA 1 0/1/0 This course prepares the student for preparation of federal state income tax returns for individuals. Emphasis is placed on form preparation with the use of computerized tax preparation software. Prerequisite(s): None
ACCT2212 Financial Accounting II 3 3/0/0 This course continues the introduction to the content and concepts underlying basic financial statements. Major content includes income measurement, accrual accounting, accounting theory, time-value of money, accounting for current and long-term liabilities, owner's equity for sole proprietorships, partnerships and corporations, statement of	ACCT2295 Certified Bookkeeper Review Course 3 3/0/0 This course is designed to prepare students to take and pass the national Certified Bookkeeper examination in order to obtain the Certified Bookkeeper designation conferred by the American Institute of Professional Bookkeepers (AIPB). The course content will include adjustments and error correction, payroll and depreciation, inventory and internal controls. Prerequisite(s): ACCT2211, ACCT2212 or accounting experience
	ACCT2620 Intermediate Accounting I4 3/1/0 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 may include the income

statement, balance sheet, statement of cash flows, and various asset groups. Prerequisite(s): ACCT2212

ACCT2622 Intermediate Accounting II 4
3/1/0

This course is a continuation of a comprehensive study of accounting theory and concepts. Topics include various asset, liabilities and owners' equity, contributed capital and retained earnings. Other topics may be included. Prerequisite(s): ACCT2620

ACCT2630 Fund/Nonprofit Accounting 3
2/1/0

This course is concerned with the fundamentals involved in fund/nonprofit accounting. It prepares the student to apply the basic governmental accounting principles and to prepare financial statements for fund/nonprofit organizations. Prerequisite(s): ACCT2212

ACCT2642 Accounting Internship 2 0/0/2

This course provides students with actual work experience in accounting careers. A competency-based internship plan is developed for each student. Prerequisite(s): Advisor approval

ACCT2643 Accounting Internship 3 0/0/3

This course provides students with actual work experiences in accounting careers. A competency-based internship plan is developed for each student. Prerequisite(s): Advisor approval

ACCT2644 Special Problems I 1 0/1/0

The intent of this course is to allow flexibility in providing learning experiences to meet the special needs of both the student and the college. Prerequisite(s): Advisor approval

ACCT2645 Special Problems II 2 0/2/0

The intent of this course is to allow flexibility in providing learning experiences to meet the special needs of both the student and the college. Prerequisite(s): Advisor approval

ACCT2800 RAP Review 3 2/1/0

This course serves as a capstone course covering financial accounting, internal control, professional ethics, business consulting services, managerial accounting, business law, and taxation. It is also designed to prepare the student for the Registered Accounting Practitioner exam. Corequisites: ACCT202, ACCT204 or 2 yr. Associates degree or Diploma in Accounting. Prerequisite(s): ACCT1120 or BUS2150, ACCT2620, ACCT2256, ACCT2630

ADML1120 Legal Office Procedures 3 2/1/0

This course covers the integration of legal office tasks into the electronic office setting. Topics include time and billing records, legal ethics, scheduling, court dates, depositions and appointments, maintaining client files, telephone techniques, and limited preparation of legal documents and legal correspondence. Also, this course provides a background study of the three branches of government and the state and federal court systems. Prerequisite(s): None

ADML1124 Civil & Family Law 3 2/1/0

The focus of this course is on legal procedures as they relate to the specialty areas of civil litigation and family law. It includes terminology, procedures and production of documents. Prerequisite(s): None

ADML1126 Criminal, ADR, Appellate 3 2/1/0

The focus of this course is on legal procedures as they relate to the specialty areas of criminal law, appellate procedures and alternate dispute resolution. It includes terminology,

procedures and production of documents. Prerequisite(s): None

ADML1128 Real Estate & Probate 3 2/1/0

This course divides its focus between real estate law and estate planning and administration. It includes terminology, procedures, and the preparation of documents. Prerequisite(s): None

ADML1130 Corporate, Collection & Bankruptcy 3
2/1/0

The focus of this course is on legal procedures as they relate to the specialty areas of corporate, collection and bankruptcy law. It includes terminology, procedures and production of documents. Prerequisite(s): None

ADML1132 Legal Transcription I 3 1/2/0

The focus of this course is to transcribe dictated material into a variety of useable legal court/non-court documents and correspondence. The students will utilize terminology and applicable procedures in the production of documents as well as build speed, accuracy and advanced editing and proofreading skills. Prerequisite(s): ADML1124, ADML1126, ADML1128, ADML1130

ADML2212 Legal Research 3 2/1/0

This course focuses on an introduction to legal research. It includes finding the law and citing the law. Students learn how to identify resources and provide assistance in legal research. Prerequisite(s): ADML1124, ADML1126, ADML1128, ADML1130

ADML2220 Advanced Legal Practices 3 2/1/0

This course focuses on advanced legal procedures, use of terminology, and document production relating to various areas of law. Prerequisite(s): ADML1124, ADML1126, ADML1128, ADML1130

ADML2222 Legal Terminology 2 1/1/0

This course covers the definition and utilization of legal terminology as it relates to specialty areas of law. Students will have the opportunity to not only improve their knowledge of legal terminology, but also utilize the terminology in the preparation of court and noncourt documents. Prerequisite(s): None

ADML2240 Internship 3 0/0/3

This course is designed to provide the student with a purposeful occupational experience in the Legal Administrative Support 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. Prerequisite(s): Advisor approval

ADML2250 ALS Certification Review 1 1/0/0

This course will review with students the areas to be covered by the national certification ALE exam. Prerequisite(s): Advisor approval

ADMM1122 Medical Office Procedures 4
3/1/0

This course offers hands-on training in the tasks performed by medical administrative personnel in a medical office setting. Topics include healthcare careers, legal and ethical responsibilities, medical appointments & calendars, professional communication including telephone techniques, health information responsibilities, meeting and travel arrangements, introduction to medical office management, and career search strategies. Prerequisite(s): Pre/Corequisite: HLTH1106

ADMM1128 Health Unit Coordinator Procedures 2
2/0/0

This course is for individuals presently working or those seeking employment as a Health Unit Coordinator (Unit Clerk) in a health care facility. Coordinator responsibilities including maintenance of patient records, transcription of orders, communication skills, and admission & discharge of patients will be covered. Prerequisite(s): Pre/Corequisites: CPTR1104, HLTH1106

ADMM1130 Medical Transcription 4 2/2/0

This course is an introduction to transcription of dictated medical reports used in a variety of medical facilities. Emphasis is placed on proper formatting, building transcription proficiency, and application of medical transcription style as defined by the American Association of Medical Transcriptionists. Students are expected to possess the ability to type 40 wpm in order to successfully complete this course. Prerequisite(s): HLTH1106; Corequisite: GSMS1104

ADMM1140 Medical Language Applications 3
3/0/0

This course provides an in-depth exploration of medical terms used in pharmacology, radiology, laboratory & pathology, surgery, psychiatry, oncology, podiatry, physical & occupational therapy. Spelling, proofreading, and analysis of medical documentation will be reviewed along with a study of a variety of medical documents. A solid foundation of medical terminology is cultivated in this course. Prerequisite(s): Pre/Corequisite: HLTH1106

ADMM1150 Medical Billing/Insurance4 3/1/0

This course provides information related to medical billing and health insurance. Topics covered include billing and statement preparation in the medical office, introduction to medical coding, types of health insurance coverage, insurance claim processes and related ethical and legal issues. Prerequisite(s): HLTH1106; Corequisite: GSMS1104

ADMM1152 Outpatient Coding 4 3/1/0

This course is an introduction to medical coding and emphasizes coding in a medical office and other outpatient care facilities. Course topics include ICD-9 and ICD-10, CPT and HCPCS Level II and III procedural coding, and legal and ethical issues related to outpatient coding practices. Prerequisite(s): HLTH1106; Corequisite: GSMS1104

ADMM2122 Medical Office Management 3
3/0/0

This course examines the many responsibilities of a medical office manager. Whether in a small private practice or in a large group practice, a medical office manager must be aware of current regulations in the health care industry and how these regulations affect the operations of a health care organization. Office management, business operations, human resources, financial management and marketing for health care organizations are also explored. Prerequisite(s): ADMM1122

ADMM2154 Uniform Billing 2 1/1/0

This course covers billing processes related to the UB-92 claim form. Billing for inpatient, ambulatory surgery and hospital-based outpatient services are covered. Prerequisite(s): ADMM1150 or ADMM1152

ADMM2230 Adv Medical Transcription4 1/3/0

This course is a continuation of medical transcription practice introduced in ADMM130. Emphasis is placed on independent practice of techniques used in a medical transcription setting. Proper formatting, appropriate terminology and development of transcription proficiency are stressed. Prerequisite(s): ADMM1130

ADMM2252 Advanced Coding 3 2/1/0

This course is a continuation of ADMM152 Outpatient Coding. The student will apply coding knowledge by abstracting information from outpatient records for billing and insurance purposes. The course utilizes practical examples to reinforce coding principles and provides an introduction to computer applications related to coding. Prerequisite(s): ADMM1152

ADMM2258 CPC Examination Review1 1/0/0

This course prepares students to take the Certified Professional Coder (CPC) examination. Review of CPT, ICD-9-CM and HCPCS coding will be an integral part of this course. Practice examinations will be taken under timed conditions. The course assists the student in establishing a personal plan for continued development in preparation for the certification examination. Prerequisite(s): Pre/Corequisite: ADMM2252

ADMM2260 CPC-H Examination Review 1
1/0/0

This course prepares students to take the Certified Professional Coder - Hospital (CPC-H) examination. Review of CPT, ICD-9-CM and HCPCS coding will be an integral part of this course. Practice examinations will be taken under timed conditions. The course assists the student in establishing a personal plan for continued development in preparation for the certification examination. Prerequisite(s): ADMM2252

ADMM2270 Medical Office Simulation2 1/1/0

This course is a capstone experience for students enrolled in a medical administrative program. Medical office responsibilities such as appointment scheduling, registration, health information management, and billing and financial operations are included in this project-based course. This course should be taken in the last semester prior to graduation as students will employ skills mastered over the course of their program enrollment in this experience. Students will develop 10-key skills necessary for billing and insurance practices in a medical office. In addition, students will complete a resume and will practice interviewing techniques. Prerequisite(s): ADMM1122; Pre/Corequisite: ADMM1150

ADMM2290 Med Secretary Internship3 0/0/3

This course provides the medical secretary student with practical occupational experience in a health care-related facility. Each internship is an individualized experience. Each student prepares a training plan in conjunction with the training site to provide guided experiences related to the skills and knowledge acquired in the medical secretary program. Prerequisite(s): Advisor approval

ADMM2291 Med Secretary Internship4 0/0/4

This course provides the medical secretary student with practical occupational experience in a health care-related facility. Each internship is an individualized experience. Each student prepares a training plan in conjunction with the training site to provide guided experiences related to the skills and knowledge acquired in the medical secretary program. Prerequisite(s): Advisor approval

ADMM2292 Med Secretary Internship5 0/0/5

This course provides the medical secretary student with practical occupational experience in a health care-related facility. Each internship is an individualized experience. Each student prepares a training plan in conjunction with the training site to provide guided experiences related to the skills and knowledge acquired in the medical secretary program. Prerequisite(s): Advisor approval

ADMM2293 Med Secretary Internship6 0/0/6

This course provides the medical secretary student with practical occupational experience in a health care-related facility. Each internship is an individualized experience. Each student prepares a training plan in conjunction with the training site to provide guided experiences related to the skills and knowledge acquired in the medical secretary program. Prerequisite(s): Advisor approval

ADMS0090 Basic Keyboarding 1 0/1/0
The student's basic keyboarding techniques are developed through the use of the computer in this course. Emphasis is on touch keyboarding alphabetic, numeric, punctuation, function and service keys. Computer operating techniques and skill developments are included. Formatting and proofreading skills are introduced. Prerequisite(s): None

ADMS1100 Keyboarding I 3 1/2/0
This course covers the development of keyboarding and formatting techniques. Emphasis is on building speed and accuracy in the operation of the alphabetic, numeric, symbol, and service keys and in introducing document formatting concepts. Proofreading skills are stressed. Prerequisite(s): None

ADMS1102 Keyboarding II 3 1/2/0
This course covers the development of formatting and text editing techniques. Emphasis is on building speed and accuracy in the operation of the alpha, numeric, symbol, and service keys and in developing text editing concept, critical thinking and decision making. Proofreading skills are stressed. Prerequisite(s): ADMS1100

ADMS1104 Skillbuilding 1 0/1/0
This course is designed to increase keyboarding speed and improve accuracy through personal goal setting, error analysis, and intensive corrective practice work. Prerequisite(s): None

ADMS1108 Data Entry 3 1/2/0
This course introduces the basic principles and techniques of operating data entry equipment. The course also develops a skill level proficiency in data entry. Prerequisite(s): None

ADMS1110 Word Processing 3 2/1/0
This course gives students an in-depth understanding of the word processing techniques needed to facilitate the production, documentation, storage and relay of information. The course will stress increased proficiency in the computer production of a variety of business documents. Prerequisite(s): None

ADMS1112 Desktop Publishing 3 1/2/0
This course introduces the concepts, terminology, techniques, and applications of desktop publishing and incorporates advanced document processing skills. The student develops skills in critical thinking, decision making, and creativity. In addition, the student will reinforce collaborative learning in planning, designing, and evaluating business documents. Prerequisite(s): None

ADMS1116 Business Communications I 3 2/1/0
This course covers composing, editing, and proofreading memos, letters, and other business documents. The principles of grammar, punctuation, spelling, and word use are developed and applied. The application of teamwork and critical thinking skills is included in the course. Prerequisite(s): ENGL0050 or appropriate placement test score

ADMS1120 Office Procedures 3 2/1/0
This course covers procedures relevant to a traditional office and new procedures relevant to an electronic automated

office. Topics may include work organization, time management, ergonomics, scheduling, organizing meetings, processing mail, telephone procedures, and arranging travel. The course also provides the student with an in-depth exposure to the role and responsibilities of a receptionist. Prerequisite(s): None

ADMS1122 Machine Transcription 2 0/2/0
This course covers skill development in transcribing machine-dictated material into business documents. Emphasis is placed on building transcription speed and accuracy; applying punctuation, grammar, and spelling rules; using reference materials; proofreading; correcting errors; and efficiently utilizing equipment and software. Prerequisite(s): ADMS1100, ADMS1116

ADMS1124 Proofreading/Editing 2 1/1/0
This course provides instruction and practice to improve proofreading and editing skills. Students detect and correct errors in capitalization, content, format, grammar, keyboarding, number usage, punctuation, spelling, word division, and word usage. Students use standard revision and editing symbols to edit for clarity and conciseness. Prerequisite(s): None

ADMS1128 Records/Database Mgmt3 2/1/0
This course is an introduction to the procedures and rules for indexing and storing documents in alphabetic, numeric, geographic, subject, and chronological systems. It also includes an introduction to the procedures for managing document/records storage systems. Applications include electronic storage and retrieval using database software for microcomputers. Prerequisite(s): None

ADMS1130 Intermediate Software Skills 3 2/1/0
This course is designed to provide the student with intermediate skills in spreadsheets, database, and Outlook as used in the office environment. This is a follow-up course to Introduction to Computers. Topics include applying document formatting, managing workbooks/worksheets, demonstrating importing and exporting of data; refining queries, generating forms and reports; organizing items using folders, customizing calendar settings, scheduling meetings and appointments, and creating groups/distribution lists. Prerequisite(s): CPTR1104

ADMS1140 Internship 2 0/0/2
This course is designed to provide the student with a purposeful occupational experience in the Administrative Support 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. Prerequisite(s): None

ADMS1150 Intro to Windows 1 0/1/0
This course covers basic information about computer hardware and software and the use of windows operating environment for application packages. Prerequisite(s): None

ADMS1152 Intro to Word Processing1 0/1/0
This course covers the operation of the personal computer hardware and the use of a word processing application to perform word processing functions. Prerequisite(s): None

ADMS1154 Intro to Spreadsheets 1 0/1/0
This course covers the operation of the personal computer hardware and the use of the spreadsheet software. Prerequisite(s): None

ADMS1156 Intro to Database 1 0/1/0

This course covers the operation of the personal computer hardware and the use of database software.
Prerequisite(s): None

ADMS1158 Intro to Presentation Software 1
0/1/0

This course covers the operation of the personal computer hardware and the use of presentation software.
Prerequisite(s): None

ADMS1160 Intro to Internet 1 0/1/0

The purpose of this course is to teach the fundamentals of how the World Wide Web works. Students will learn to use an Internet browser to browse Web pages, understand Web page management techniques, save and print material obtained from a Web site, and communicate with others on the Web. Prerequisite(s): None

ADMS1162 Intro Desktop Publishing 1 0/1/0

This course introduces the concepts, terminology, techniques and applications of desktop publishing. Prerequisite(s): None

ADMS2124 Computer Technology Information3
2/1/0

This course provides instruction on advanced microcomputer techniques. Topics include file transfer options, malicious program items, management techniques, networking and security, data communications, and software evaluation, selection and installation. Prerequisite(s): Pre/corequisite: CPTR1104

ADMS2202 Advanced Word Processing 3
2/1/0

This course will provide students who have attained a basic understanding of word processing software, a more in-depth knowledge of the product. Students will work with more complicated projects that incorporate many of the upper level skills required at this level. Prerequisite(s): ADMS1110

ADMS2212 Integrated Software Applications 3
2/1/0

This course demonstrates the use of a centralized computer system for both actual and simulated business applications. Areas covered include electronic files, electronic mail, files management, system management, personnel management, supervisory applications, calendar and time management, communications, microcomputer applications, and other daily activities that are experienced in the office work setting. Prerequisite(s): CPTR1104; and ADMS1100 or ADMS1110

ADMS2216 Business Communications II 3
2/1/0

This course is designed to advance the student's knowledge of formatting and editing techniques for business writing. It will provide an in-depth concentration on reviewing and/or further develop memos, letters, and a wide variety of other business documents, and review of ongoing practical applications of grammar, word, and language mechanics. This course will also advance the student's knowledge on proofreading, editing, and revising techniques for business writing in diverse business situations. Teamwork and critical thinking skills will also be included in this course. Prerequisite(s): ADMS1116

ADMS2218 Presentation Applic (PPT)1 0/1/0

This course covers applications of presentation software using the personal computer. Topics include custom formatting, animation, hyperlinks, Web pages, linking and embedding objects, and interactive presentations. Prerequisite(s): None

ADMS2222 Adv Desktop Publishing 3 1/2/0

This course expands on the concepts and applications developed in the introductory Desktop Publishing class. The student will develop advanced skills in all aspects of Desktop Publishing, including the development of web pages. Prerequisite(s): ADMS1112

ADMS2240 Internship 3 0/0/3

This course is designed to provide the student with a purposeful occupational experience in the Administrative Support 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. Prerequisite(s): None

ADMT1172 Microsoft Office Access MOS Certification 2
1/1/0

This course prepares participants to sit for the Microsoft Office Access MOS (Microsoft Office Specialist) certification. Class outcomes are aligned with certification objectives. Exam objectives are categories of examination tasks, identified by subject-matter experts that certify an ability to productively use Microsoft Office programs. These categories are organized into skill sets representing the more basic functions of each Office program. Prerequisite(s): CPTR1104

ADMT1174 Microsoft Office PowerPoint MOS Certification
1 0/1/0

This course prepares participants to sit for the Microsoft PowerPoint MOS (Microsoft Office Specialist) certification. Class outcomes are aligned with certification objectives. Exam objectives are categories of examination tasks, identified by subject-matter experts that certify an ability to productively use Microsoft Office programs. Prerequisite(s): CPTR1104

ADMT2230 Administrative Project Management 2
1/1/0

Project management is a powerful set of tools and practices that provide a systematic approach to planning, organizing, controlling, and leading a project to successful completion. This course guides you through a step-by-step process for managing projects from the initial planning stage to final completion and evaluation. It combines hands-on training in Microsoft Project with in-depth discussions of the underlying principles and practices of project management. Prerequisite(s): CPTR1104

ADMT2232 Event Management 3 1/2/0

This course explores the principles and practices involved in planning and administrating a special business event. Topics will include the differentiating the various types of business events, analyzing the process and procedures necessary to plan an event, identifying the various resources needed to organize an event, and venue selection criteria. Students in this course will apply classroom and textbook principles by collaborating with Sales & Marketing students and faculty to plan, promote, and execute an authentic event on campus, working with area businesses and organizations. Prerequisite(s): CPTR1104

AMST1102 Alignment & Suspension I3 1/2/0

This course teaches suspension systems using leaf springs, coil springs, MacPherson struts, torsion bars and wheel balance. It also covers the principles of operation, disassembly, checks and adjustments of power and manual steering gears, and manual and power rack and pinion systems. This course also teaches the procedures required to check and adjust wheel alignment angles such as castor, camber and toe on various suspension systems. Prerequisite(s): TRNS1102

AMST1105 Brakes I 3 1/2/0

This course teaches principles of brakes, hydraulic system fundamentals, disc and drum brakes, parking brakes and power assist units. Emphasis is placed on operation, diagnosis and repair of various types of brake systems. Anti-lock brake systems with electronic control systems are also covered. Prerequisite(s): TRNS1102

AMST1109 Starting & Charging 3 2/1/0

This course covers the service procedures required to diagnose and repair the electrical and mechanical systems and components. Electrical and electronic theories and principles are applied to trouble shooting complete circuits and components. Fundamental Component rebuilding and analysis are performed. Electrical safety, Battery testing, Starting and Charging systems are covered. Prerequisite(s): AMST1111

AMST1111 Automotive Electronics 3 2/1/0

This course provides preparation for all the electronic and computer courses which follow. Electrical and electronic theories, operation of electrical circuits and components, conductors, semi-conductors, transistors, diodes, light emitting diodes and fluorescent displays are addressed. Test instruments and meters are used throughout all instruction and testing. Prerequisite(s): None

AMST1114 Basic Maintenance Service 1 1/0/0

This course will provide the introduction to basic vehicle maintenance to include identification of service points and procedures required for maintenance. Fluid types, brake inspection, tire rotation, and service information will be addressed. Prerequisite(s): None

AMST1122 Engines I 3 2/1/0

This course covers the fundamentals of internal combustion engine operation, repair and maintenance. The procedures for removal, replacement, diagnosing, rebuilding and assembly are presented. Proper tool and equipment application and failure diagnosis are emphasized in this course. Prerequisite(s): None

AMST1126 Engines II 3 1/2/0

This course covers the disassembly, diagnosis, measurement, service, assembly and adjustment of engines and components. Cylinder head, valve train, cylinder block assemblies, cooling and lubrication systems are thoroughly covered. Prerequisite(s): AMST1122

AMST1132 Drive Trains I 3 2/1/0

This course covers drive axles, drive shafts, front and rear wheel bearing and analysis of vehicle noise vibration and harshness. Theory, service skills and diagnosis are covered on bench and in-vehicle units. Drive line phasing, alignment and balance are covered. Prerequisite(s): TRNS1102

AMST1136 Drive Trains II 3 1/2/0

This course covers clutch, manual transmission, final drive and transfer case systems. Clutch and transmission diagnosis and service procedures involve the theories and application of components. Vehicle noise, vibration, and harshness are also addressed. Prerequisite(s): None

AMST1190 Upper Engine Service Lab 2 0/2/0

This course covers service inspection and repair of the engine upper components. Students will perform lab projects and customer service repairs as related to industry procedures and standards. Prerequisite(s): TRNS1102

AMST1192 Auto Transmission Srv Lab 2 0/2/0

This course will address service procedures for automatic transmission. In car and out of car diagnosis and service will be performed. This is a lab performance course. Prerequisite(s): TRNS1102

AMST1194 Adv Clutch/Drive Line Lab2 0/2/0

This course is a lab course in which the student will build proficiency in clutch and drive line service skills introduced in previous drive line and transmission service courses. Students will perform production work to increase flat rate efficiency. Prerequisite(s): TRNS1102

AMST1196 Adv Brake Service Lab 2 0/2/0

This course applies the principles, techniques, and service procedures of e modern brakes system services. Hydraulic system analysis, diagnosis, and service will be practiced. Anti-lock braking systems diagnosis, analysis of operation, and service of electronic controls are also covered. Prerequisite(s): TRNS1102

AMST1198 Adv Transfer Case Lab 2 0/2/0

This course is a lab course in which the student will build proficiency in 4X4 transfer case service skills introduced in previous drive train service course. Students will perform production work to increase ability to perform closer to flat rate efficiency. Prerequisite(s): TRNS1102

AMST2201 Alignment & Suspension II 3 2/1/0

This course covers steering column, manual steering and rack and pinion gears, power steering gears and pumps, additional four wheel alignment and supplemental restraint safety components. Students will use scan tool to diagnose and bleed power steering system and check four wheel steer systems. Prerequisite(s): AMST1102

AMST2206 Body Elec/Mechanical I 3 1/2/0

This course teaches diagnosis and repair of interior and exterior lighting, safety devices, comfort systems, and door, window, and seat control systems. The student will use wiring diagrams to pinpoint body electrical problems and troubles. Window, door, and seat control service will also be performed. Common vehicle accessories will also be addressed. Prerequisite(s): None

AMST2209 Body Elec/Mechanical II 3 1/2/0

This course focuses on computer controlled body components and safety systems. Scan tool diagnostics will be intense and focus on accessories and creature comfort units. Power windows, sun roof, remote mirrors, heated glass, heated seats and running lights are some of the systems addressed. Prerequisite(s): AMST2206

AMST2211 Exhaust Analysis Fuel Sys 3 2/1/0

This course focuses on the fuel delivery systems on today's fuel injected vehicles. Diagnosis, repair, and non start are covered using the latest scan tools and factory tools for fuel system repair. Prerequisite(s): AMST1111

AMST2214 Elec Powertrain Cntrl I 3 2/1/0

This course will cover the introduction to vehicle computer systems and related components that assist in the management of engine fuel, ignition, and emission systems. Introduction to sensor inputs, management operation, and operational commands are addressed. Prerequisite(s): AMST2211, AMST2220

AMST2218 Elec Powertrain Cntrl II 3 1/2/0

This course will study the many electronic control systems used on today's passenger cars and light trucks. Examples: fuel injection, distributorless ignition, transmission controls,

emission controls, and the new second generation OBD-II strategy. Prerequisite(s): AMST2214

AMST2220 Ignition Systems 3 2/1/0
This course will take you from electronic distributors to coil pack and through the latest coil on plug multi firing systems. Circuits, timing controls, sensors and no start diagnosis will give you all the spark you would care for. Prerequisite(s): AMST1111

AMST2224 Auto Service Tech Intern2 0/0/2
This course is designed by the student and advisor in cooperation with industry to provide an "on-the-job training" experience for the student. The student will prepare an internship plan consistent with 96 hours of internship time. The plan should reflect the internship site, student knowledge, prior coursework and skills. This course will provide the student with an opportunity to integrate the skills, knowledge and concepts gained in previous coursework into an occupational experience. Prerequisite(s): TRNS1102

AMST2225 Brakes II 3 2/1/0
A step up from our Brakes I course will look at progression of anti-lock brake systems and the many manufacturer variations used of these systems. Operation, diagnostics, service and bleeding processes will be addressed. Students will use scan tool diagnostic routines and circuit analysis in verifying operation. Traction control inputs and functions will be covered. Prerequisite(s): AMST1105, AMST1111

AMST2226 Auto Service Tech Intern3 0/0/3
This course is designed by the student and advisor in cooperation with industry to provide an "on-the-job training" experience for the student. The student will prepare an internship plan consistent with 144 hours of internship time. The plan should reflect the internship site, student knowledge, prior coursework and skills. This course will provide the student with an opportunity to integrate the skills, knowledge and concepts gained in previous coursework into an occupational experience. Prerequisite(s): TRNS1102

AMST2228 Auto Service Tech Intern4 0/0/4
This course is designed by the student and advisor in cooperation with industry to provide an "on-the-job training" experience for the student. The student will prepare an internship plan consistent with 192 hours of internship time. The plan should reflect the internship site, student knowledge, prior coursework and skills. This course will provide the student with an opportunity to integrate the skills, knowledge and concepts gained in previous coursework into an occupational experience. Prerequisite(s): TRNS1102

AMST2232 Auto Independent Study Lab 1
0/1/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 32 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): TRNS1102

AMST2233 Auto Transmission I 3 2/1/0
This course will provide the principles of many systems combined into an automatic transmission. Planetary gearing, wet clutch operation, hydraulic controls, torque application, braking action, friction and anti-friction and one way clutching will all be put together in a systematic process to make this

service work challenging and rewarding. Prerequisite(s): TRNS1102

AMST2234 Auto Independent Study Lab 2
0/2/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 64 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): TRNS1102

AMST2236 Auto Independent Study Lab 3
0/3/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 96 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): TRNS1102

AMST2237 Auto Transmission II 3 1/2/0
Here you will practice many of the procedures used in transmission diagnoses, in vehicle repair sequences, scan tool data interpretation and diagnosis, transmission removal, installation and adjustment. Cooling system diagnosis and service are also covered. Prerequisite(s): AMST2233

AMST2238 Auto Independent Study Lab 4
0/4/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 128 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): TRNS1102

AMST2240 Heating Ventilation A/C 3 1/2/0
This course teaches the principles of air conditioning and its relationship to the heating and ventilation processes. System types and designs, component variations, diagnosis, testing and repair are studied and practiced on functioning units. Recovery, evacuation, performance testing and charging are practiced. Prerequisite(s): AMST1111

AMST2250 Certification Exam Prep 2 2/0/0
This course will deal with information to prepare the student for ASE certification examination. Topics covered include areas tested in the ASE Automotive Service Technical master certification exam. This course is appropriate for those people seeking initial certification or recertification. Prerequisite(s): Current Automotive Technician student within two semesters of graduation or occupational experience

AMST2254 Tune-Up Lab 2 0/2/0
This course is a lab course designed to allow students to build their proficiency in the use of the various analyzers and to gain skill in diagnosis of engine problems. Prerequisite(s): TRNS1102

AMST2256 Brake System Update 1 1/0/0
This course covers information and changes in the brakes systems, improved service procedures, advanced diagnosis, and shared service procedures used in the industry. Prerequisite(s): TRNS1102

AMST2258 Auto Transmission/axle Update 1 1/0/0
This course covers changes in product and service related to automatic transmissions. New changes and product improvements will be addressed. Prerequisite(s): TRNS1102

AMST2260 Manual Drive Train & Axles Update 1 1/0/0
This course covers changes and updates in the manual drive train components and changes in service requirements. Prerequisite(s): TRNS1102

AMST2262 Suspension/Steering Update 1 1/0/0
This course covers information and changes in the suspension and steering systems, improved service procedures, and shared service techniques. Prerequisite(s): TRNS1102

AMST2264 Engines Update 1 1/0/0
This course covers changes and improvements in engine technology and service updates. Prerequisite(s): TRNS1102

AMST2266 Electrical/Electronics Update 1 1/0/0
This course covers information and changes in the electrical/electronic systems of vehicles and systems used in today's vehicles. Prerequisite(s): TRNS1102

AMST2282 Supplemental Inflatable Restraint2 1/1/0
This course covers the theory of operation, and troubleshooting procedures of supplemental restraint systems (SRS) used on domestic manufacturers automobiles and light trucks. Prerequisite(s): TRNS1102

AMST2284 Chrysler Driveability/Test Proc 3 1/2/0
For engine and fuel system technicians, this course covers fundamentals of current Chrysler fuel injection systems, including the related engine management system. Fuel injection systems covered include throttle body injection (TBI), multipoint fuel injection systems (MFI), and central multipoint fuel injection systems (CMFI). Course covers system and component operation and diagnosis of the engine management system. In addition, hands-on practice of service procedures, component testing, and on-board diagnostics is also provided. Prerequisite(s): TRNS1102

AMST2286 Climate Controls 2 1/1/0
This course covers theory and operation of automatic temperature control systems used in Ford, General Motors, and Chrysler passenger cars and light trucks. Prerequisite(s): TRNS1102

AMST2292 Internship 1 0/0/1

This course is designed by the student and advisor in cooperation with industry to provide an "on-the-job training" experience for the student. The student will prepare an internship plan consistent with 48 hours of internship time. The plan should reflect the internship site, student knowledge, prior coursework and skills. This course will provide the student with an opportunity to integrate the skills, knowledge and concepts gained in previous coursework into an occupational experience. Prerequisite(s): None

ANTH1100 Anthropology 3 3/0/0
Meets MNTC goal areas 5 and 8. This course is a survey of human nature through time and around the world. It examines human evolution, culture, kinship, religion, food production, material, and archaeology. Three hours per week. Prerequisite(s): None

ARCH1112 Architectural Desktop 4 2/2/0
This course covers the development of three-dimensional architectural modeling and documentation using AutoCAD Architectural Desktop software. Emphasis is on creating and editing ObjectARX component styles. Prerequisite(s): CADD1102, ENGR1132

ARCH1126 Residential Project I 3 1/2/0
This course covers the design development and documentation of single family living. Students will be introduced to residential design styles as well as proper documentation methods. Prerequisite(s): ENGR1126, ENGR1132

ARCH2218 Architectural Internship 3 0/0/3
This course provides the student with an occupational experience in the Architectural Technology field. Each internship is an individualized experience. Prerequisite(s): ARCH1126

ARCH2226 Residential Project II 4 1/3/0
This course will introduce building design and construction requirements for multi-family housing. The course will cover the processes for the selection of building materials and their integration into construction documents. Prerequisite(s): ARCH1112, ARCH1126, BLDG1104, BLDG1134

ARCH2230 Mech/Elec Integration 2 1/1/0
This course will review the examination of structural, mechanical, plumbing and electrical systems in buildings. Content will include analysis of structural framing systems, plumbing and HVAC systems and power and lighting systems. Prerequisite(s): ARCH1112, ARCH1126

ARCH2236 Presentation 2 0/2/0
This course will develop design schematics and a set of presentation drawings for a commercial project. Emphasis will be on verbal and visual presentation techniques. Prerequisite(s): ARCH1112, ARCH1126

ARCH2244 Commercial Projects 4 1/3/0
This course will cover the construction document process for commercial building design while having the student complete a self-guided capstone project. Content will include final detailing, scheduling and sheet set layout from a given design developed project. Prerequisite(s): ARCH2226, ARCH2240

ARCH2246 Advanced ADT & Rendering 3 1/2/0
This course provides the advanced use of computer aided drafting and modeling using Architectural Desktop software and its related rendering application. The course will develop CADD configuration skills, advanced modeling techniques and various presentation renderings. Prerequisite(s): ARCH1112

ARCH2248 CADD Alternatives 3 1/2/0
This course will familiarize the student with computer drafting and modeling software for the graphic design of residential construction. Prerequisite(s): None

ARCH2250 Project Administration 2 1/1/0
This course provides an understanding of architectural firm structures and legal issues as well as project management procedures used throughout documentation, bidding and construction administration. Prerequisite(s): ARCH2226

ART1105 Intercultural Art & Design 3 3/0/0
Meets MNTC Goal Areas 6F and 7. This studio art course is designed to complement student's overall education by focusing on their intercultural awareness, vocabulary, building their art-related technical skills, and enhancing their appreciation and understanding of the artistic process. Prerequisite(s): None

ART1110 Intro to Art 3 3/0/0
Meets MNTC Goal Area 6F. This course provides an introduction to the elements and principals of visual arts and to the creative process. Students are encouraged to use a variety of media in drawing, painting and sculpture. Prerequisite(s): None

ART1111 Beg Drawing 3 3/0/0
Meets MNTC Goal Area 6F. This course introduces students to basic drawing media and to the visual elements in relationship to drawing. Accurate observation of still-life, nature and the human figure are emphasized. Prerequisite(s): None

ART1112 Beg Painting 3 3/0/0
Meets MNTC Goal Area 6F. This course introduces students to techniques and visual elements of painting. Throughout the course we will look at contemporary and historical approaches to painting by viewing the work of artists from various periods in art. Prerequisite(s): ART1110 or ART1111

ART1115 Life Drawing 3 3/0/0
Meets MNTC Goal Area 6F. Course consists of drawing from a model using various materials and media. Prerequisite(s): None

ART1116 Pastel Drawing 3 3/0/0
Meets MNTC Goal Area 6F. Course consists of drawing using pastel materials and media. Prerequisite(s): None

ART1121 World of Art I 3 3/0/0
Meets MNTC Goal Areas 6 and 8. This course is a survey of architecture, painting, sculpture and its historical and social context. Specific periods from Prehistoric through the Middle Ages will be introduced. Prerequisite(s): None

ART1122 World of Art 3 3/0/0
Meets MNTC Goal Areas 6 and 8. The study of the appreciation of art through the study of its history from the Mannerism in the late 1500s to the present modern art forms. Baroque Art to present. Prerequisite(s): None

ART1124 American Art 3 3/0/0
Meets MNTC Goal Areas 6 and 7. This course explores the great variety and depth of North American Art. Native American, Colonial, Latino, and Contemporary art are the focus of the course. Prerequisite(s): None

ART1140 Handbuilt Ceramics 3 3/0/0

Meets MNTC Goal Area 6F. This course will develop the skills of ceramics, focusing on handbuilding. Using the methods of coil, pinching and slab building, the students will make a variety of forms, ranging from functional to sculptural. Students will create finished products, including the use of glaze and other finishes. The nature of handbuilding techniques provide a more immediate opportunity to express creativity. Prerequisite(s): None

ART1141 Ceramics I 3 3/0/0
Meets MNTC Goal Area 6F. Students learn about pottery tools and their uses, construction methods such as coil and slabs, aspects of pottery form and design, formulation and application of glazes and operation of a ceramic kiln. The course is designed for the novice. Prerequisite(s): None

ART2218 Printmaking 1 0/1/0
Meets MNTC Goal Area 6F. Techniques and practices of carving and reproducing images using linoleum and woodblocks. Prerequisite(s): None

ART2241 Advanced Ceramics 3 3/0/0
Meets MNTC Goal Area 6F. This course will build on the skills developed in Ceramics I with emphasis on wheel throwing, glazing, and firing techniques. Prerequisite(s): ART1141

AT1120 Assistive Tech I 3 3/0/0
This course will explore the definition of Assistive Technology and the distinction between low and high technology. Examples of situations in which Assistive Technology can be employed will be presented. Historical and future aspects will be taught. Prerequisite(s): None

AT1130 Assistive Tech II 3 3/0/0
This course will teach the use of advanced Assistive Technology. Utilization of low and high technology will be implemented. Opportunities will be given to observe the use of Assistive Technology to meet the special needs of individuals with disabilities. Prerequisite(s): AT1120

ATEC2226 Industrial Automation & Control 4
2/2/0
This course teaches industrial motion control servomechanisms and process control instrumentation systems. The course describes the concepts and the operation of electronic devices, circuits, systems, and applications used in industry. Prerequisite(s): METC1112, METC2222, METC2224

ATEC2238 Quality Planning & Control 3
3/0/0
This is an introductory course surveying quality related topics from both qualitative and quantitative point of views. The course is structured to address the quality system, the management system, and the technical system approaches to quality planning and management. Topics related to people, leadership, application, implementation, data collection, and analysis and quality standards are included in this course. Prerequisite(s): None

BIOL1005 Survey A&P 3 2/1/0
Meets MNTC Goal Area 3. A general course covering the structure and functions of the organ systems of the human body. Emphasis is on interrelationships between systems and maintenance of homeostasis. Prerequisite(s): None

BIOL1104 Biology of Human Concerns 3
2/1/0
Meets MNTC Goal Areas 2 and 3. Study of issues related to human biology with reference to genetics, nutrition, health, disease, or other contemporary issues. Elements of molecular, cell, and organismal biology are introduced as

needed to understand the topics selected for study. Topics may vary from one semester to the next. Intended for non-science majors. Prerequisite(s): None

BIOL1107 Env Science Issues 3 3/0/0
Meets MNTEC Goal Areas 2, 3 and 10. Discussion and Study of ecosystems, biodiversity, human adaptations to and modifications of those ecosystems, and current environmental problems and their possible solutions. Optional lab, BIOL 1108, is available for students needing or wanting the lab experience. This course is for non-science majors. Prerequisite(s): None

BIOL1108 Env Science Issues Lab 1 0/1/0
Meets MNTEC Goal Areas 2, 3 and 10. Laboratory work in conjunction with BIOL 1107 Environmental Science Issues. Laboratory experience may include lab and field exercises, computer simulations and collection and analysis of data related to current environmental issues and their possible solutions. This optional lab must be taken concurrently with BIOL 1107. Prerequisite(s): Concurrent enrollment in BIOL1107

BIOL1111 General Biology I 4 3/1/0
Meets MNTEC Goal Areas 3 and 10. A study of the cellular organization of an organism, its physiology and its genetics. The emphasis on cellular study includes its basic organization, metabolic activities (cellular respiration and photosynthesis), reproductive and heredity. Students will also study organic evolution and ecological interactions. Lab work will include outdoor activities, microscopic work, molecular genetics and genetics principles. The first semester in a 2-course sequence of general biology. Prerequisite(s): None

BIOL1112 General Biology II 4 3/1/0
Meets MNTEC Goal Areas 2 and 3. A study of the entire animal organism with special emphasis on systems and requirements for life. The emphasis is comparing animal systems. the study of plants examining transport, reproduction and growth. Lab work will include animal dissection and comparative anatomy and physiology. Plant lab work will involve plant systems. The second semester in a 2-course sequence of general biology. Prerequisite(s): None

BIOL1125 Basic Immunology 2 2/0/0
For MLT students, but also for other health professionals. Principles of antigens, antibodies, and their combination in health, disease and serological laboratory procedures. Includes diseases of Hepatitis, AIDS, Lupus, Rheumatoid Arthritis, Lyme disease, Syphilis, Infections, Mono, and Streptococcal infection. Prerequisite(s): None

BIOL1152 Food Science 3 3/0/0
Meets MNTEC Goal Areas 3 and 9. This course addresses the use of public policy and food technology to reduce or control risks in our food supply. An overview of microbiological, chemical, and environmental risks will be presented, as well as government and industry controls used to ensure food safety. Prerequisite(s): None

BIOL1161 Intro to Freshwater Biology 3 2/1/0
Meets MNTEC Goal Areas 3 and 10. This course introduces students to the basic principles of freshwater biology. Topics include the origins and features of basins and channels, the aquatic environment, basic water chemistry, aquatic organisms, and aquatic ecology. Prerequisite(s): High School Chemistry recommended

BIOL2202 Principles Nutrition 3 3/0/0
Meets MNTEC Goal Areas 2 and 3. A study of the fundamental principles of nutrition. The course will cover food

composition, diet planning, utilization of food nutrients in the body, and the requirements for nutrients in infancy, childhood, teen years, athletes, adults and the elderly. Also included are discussions about current trends in nutrition, the relationship of diet and disease, and cultural differences in dietary practices. Students will apply the basic principles of nutrition through a study in diet analysis. Prerequisite(s): CHEM1100 or 1111 or equivalent; or BIOL1111 or 2230 or equivalent; or instructor permission

BIOL2230 Human Anatomy & Phys I3 2/1/0
Meets MNTEC Goal Area 3. This course covers basic anatomy and physiology. Topics and areas covered: study of cell, tissues, organs of the different body systems and structures. Systems studies: integumentary, skeletal, muscular, circulatory, lymphatic, and respiratory. Prerequisite(s): None

BIOL2232 Human Anatomy & Phys II 3 2/1/0
Meets MNTEC Goal Area 3. This course builds on BIOL150. Structures and processes associated with the following systems will be covered: nervous, endocrine, digestive, urinary and reproductive. Metabolism, nutrition and basic genetic concepts will also be covered. Prerequisite(s): BIOL2230

BIOL2240 Genetics 4 3/1/0
Meets MNTEC Goal Area 3. A Study of the basis of heredity with emphasis on modern molecular and classical Mendelian genetics. This course is intended for students majoring in biology and health-related areas. Lecture and laboratory. The laboratory will include molecular and classical genetic techniques. Prerequisite(s): BIO1111 and CHEM1100, 1101, 1107 or 1111

BIOL2257 Medical Microbiology 3 2/1/0
Meets MNTEC Goal Area 3. Introduction to bacteria, viruses, parasites, and fungi of medical importance. Emphasis in transmission, signs and symptoms of disease, immunization, control of microbial growth and specimen collection. Laboratory includes culture and identification of bacteria, identification of fungi, and parasites of medical importance. (Nursing students should take this microbiology course.) Prerequisite(s): None

BIOL2266 Diagnostic Microbiology 5 4/1/0
Meets MNTEC Goal Area 3. Study of microorganisms of medical importance in relationship to disease and diagnosis, emphasizing identification of bacteria in patient specimens, specimen collection, antimicrobial susceptibility testing, and introducing virology, mycology, parasitology and immunology. Laboratory covers basic techniques of identification of normal flora and pathogens, morphology, classification and cultivation of bacteria, identification of bacterial unknown specimens, fungi and parasites. Medical laboratory technician students should take this microbiology course. Four hours lecture and one (2 hour) laboratory per week. Prerequisite(s): College level placement in reading and writing

BLDG1102 Construction Safety 1 1/0/0
This course provides students with an understanding of occupational safety practices, basic requirements, purpose and enforcement of general safety rules. Prerequisite(s): None

BLDG1104 Building Codes 2 2/0/0
This course will familiarize the student with the various building codes with an emphasis on how understanding and interpretation effects building design and construction. Prerequisite(s): None

BLDG1114 Blueprint Reading I 2 2/0/0

This course provides the student with a working knowledge of blueprints and specifications. The student gains an understanding of blueprints, then interprets and applies this knowledge to job situations. Prerequisite(s): None

BLDG1120 Construction Estimating I2 1/1/0
This course covers the mathematical procedures used in material estimating and completing quantity takeoffs for building projects. Prerequisite(s): None

BLDG1122 Construction Estimating II2 1/1/0
This course covers material and labor estimating which make up the primary portion of a construction bid package. These procedures are used to prepare and complete accurate bids for construction projects of all sizes. Prerequisite(s): BLDG1120

BLDG1130 Building Tech I 2 1/1/0
This course will introduce the materials and detailing of foundation, framing and finish systems used in residential construction. Prerequisite(s): ENGR1126

BLDG1134 Building Tech II 2 1/1/0
This course will introduce the materials and detailing of wall, roof, structural and finish systems used in non-combustible construction. Prerequisite(s): ENGR1126, BLDG1130

BLDG2214 Blueprint Reading II 2 1/1/0
This course develops skills in reading plans and specifications used in building different types of structures including residential and commercial projects. Prerequisite(s): BLDG1114

BLDG2240 Estimating Methods II 2 1/1/0
This course covers the calculation of commercial material quantities as well as material and labor cost analysis. Content will include cost calculations of buildings through area and volume system analysis as well as detailed material quantity estimates. Prerequisite(s): BLDG1134, BLDG1140

BMGT1102 Prep Small Bus Mgmt/Ownership3 3/0/0
This course is designed to define small business and its importance in the free enterprise system. Students are introduced to start up and buyout opportunities, financial planning and legal forms of ownership. Prerequisite(s): None

BMGT1104 Research Methods 3 2/1/0
This course covers basic research principles and procedures that are necessary for managers to effectively manage their organizations. Topics covered include basic sampling techniques, survey methods and data collection, data analysis, basic statistical methods and formulation of conclusions. The student will also be required to document and present findings. Prerequisite(s): None

BMGT1108 Organizational Mgmt 3 2/1/0
An introduction to how managers coordinate human and material resources to achieve organizational goals. Effective management skills that can be applied to both retail and service organizations. Prerequisite(s): None

BMGT1110 Financ Statement Analysis 2 0/2/0
This course describes the content and purpose of financial statements. Students will learn the skills needed to create and analyze financial statements. How income statements and balance sheets are used to make management decisions in both retail and service business settings will be examined. Prerequisite(s): None

BMGT1112 Business Plan Dvlpmnt 2 0/2/0
Through the use of the computer, students will have hands on training in developing a business plan for their very own business idea. Financial statement analysis, risk management, business law and understanding the business environment will all become a part of the business plan. Prerequisite(s): None

BMGT1114 Internship 3 0/0/3
The methods and techniques of leadership and supervision and their applications are emphasized in this course. The content covers such topics as delegation, motivation, training, orienting, evaluating and effectively increasing productivity. Prerequisite(s): None

BUS1120 Spreadsheet & Database Concepts 3 3/0/0
This course provides the student with in-depth coverage of a spreadsheet and a database management system as used in a business setting. Students should be familiar with Windows and word processing. Prerequisite(s): None

BUS1132 Desktop Publishing 3 2/1/0
This course is designed to introduce students to microcomputer desktop publishing systems. The student will use the microcomputer as a tool to create publications for the home or office. The course will use various software programs such as image enhancement software, scanner software, web publishing, etc., in addition to the desktop publishing program. The student will work on individual projects throughout the course and work on a final group project as a whole class. Prerequisite(s): None

BUS1141 Intro to Business 3 3/0/0
Course is designed to give the student an overview of the business and economic factors that sustain our American enterprise system. Topics included are Economic systems and the foundations of American business, international business, fundamentals, management, forms of a business enterprise including franchises, human resources management, marketing and consumer behavior, accounting, securities markets and the ethical and social responsibilities of business. Prerequisite(s): None

BUS1143 Office Procedures 3 3/0/0
This is a capstone course in office organization, business ethics, and responsibilities of office workers. Emphasis is placed on decision-making ability and the exercises of good human behavior. The course will cover all aspects of the office, from behavior to technologies used. This course will also cover what it is to be a professional in any field. Group dynamics as well as looking like a professional are just two of the topics covered. Prerequisite(s): None

BUS1146 Personal Finance 3 3/0/0
An introduction to personal financial management and planning. topics covered include key factors that affect personal income, budgeting, cash-flow management, use of credit and credit cards, planned borrowing, managing taxes, major expenditures including housing, automobiles, insurance and investments. Prerequisite(s): None

BUS1158 Free Mkt Enterprise 2 2/0/0
Students who successfully complete the assigned projects as a member of Students in Free Enterprise (SIFE) may register for this course. Prerequisite(s): Instructor approval

BUS2150 Legal Environ of Business3 3/0/0
An overview of the American legal system which provides an introduction to what every educated citizen should know about the law and the American legal system. Major content areas will include the court system, trial process, alternative

dispute resolution, business and the constitution, the administrative process, torts and product liability, common law of contracts, employment law, employment discrimination, anti-trust law, international business and ethics. Prerequisite(s): None

BUS2202 Mgmt Information Sys 3 3/0/0
This course will introduce the student to Management Information Systems. An information system is a set of interrelated components working together to collect, retrieve, process, store, and disseminate information for the purposes of facilitating, planning, and decision making in business and other organizations. The student will gain invaluable knowledge as to how a business solves problems using an information system. Prerequisite(s): CSCI1101, or CSCI1155

BUS2204 Prin of Management 3 3/0/0
This course represents a study of the basic principles of business management, to include the functional, scientific, behavioral and systems approaches. Current literature, concepts, models and applications will be included as well as the use of case studies. Prerequisite(s): None

BUS2206 Prin of Marketing 3 3/0/0
Principles of Marketing is an introductory study of marketing as an important element of our economy. This course will include the nature and significance of marketing, both consumer and industrial marketing. The marketing mix, market segmentation, target market identification, the product, channels of distribution, and pricing systems. Prerequisite(s): ACCT2211

BUS2224 Business Telecommunications 3 2/1/0
Business Telecommunications is designed as an introductory course in data and telecommunications. The class provides a balanced approach, emphasizing both the technical aspects of telecommunications and related managerial issues, with a major emphasis on the Local Area Network. Prerequisite(s): BUS1100, or BUS1155

BUS2292 Business Finance 3 3/0/0
This course covers the basic concepts in managing the financial matters of a business. Financial concepts will include the securities markets, interest rates, taxes, risk analysis, and the time value of money. Students will learn how to maximize the value of an enterprise by making decisions in the areas of capital budgeting, capital management, and choice of capital structure. Prerequisite(s): None

CADD1102 Fundamentals of CADD 4 2/2/0
This course provides the fundamentals of Computer Aided Drafting using the latest version of AutoCAD drafting software. The course develops the fundamental CADD skills necessary to produce complex drawings and print them. Prerequisite(s): Pre/Corequisites: CPTR1100 or CPTR1104

CADD1114 Intro to Solids & Parametric Modeling 4 2/2/0
This course is an introduction to solid modeling and model derived drawing layouts using the latest versions of Autocad, Inventor, and Solidworks drawing softwares. Prerequisite(s): CADD1102, MCDD1102

CADD2204 CAD Certification 1 0/1/0
This course covers the review of the computer skills necessary to pass the industry examination, Level 1, AutoCAD Certification. The student will review all of the basic and intermediate commands utilized in the general knowledge of CAD and CAD terminology. Prerequisite(s): CADD1102

CADD2214 Advanced Solids & Parametric Modeling 4 2/2/0
This course covers advanced part modeling, assembly modeling, sheet metal, and presentation files in the latest versions of the Inventor and Solidworks drawing softwares. Prerequisite(s): CADD1114

CARP1102 Prin of Framing 3 3/0/0
This course is designed to provide an understanding of the principles of floor, wall, stair and roof framing. Prerequisite(s): None

CARP1104 Framing I 6 0/6/0
This course is designed to provide experience in constructing basic floor frames, wall frames, stair frames, ceiling and roof frames. Prerequisite(s): None

CARP1108 Interior Finish I 4 1/3/0
This course provides an understanding of the materials used for interior finishing, plus hands-on experience in the application of these materials. Prerequisite(s): CARP1104

CARP1110 Intro to Cabinet Building 3 1/2/0
This course covers basic kitchen design, cabinet planning, sizing, and construction joints necessary for fabrication of a quality cabinet. The student will construct a basic upper and base cabinet. The student will learn how to laminate a countertop and install it. Prerequisite(s): None

CARP1112 Exterior Finish I 3 1/2/0
This course provides the student with a basic knowledge of exterior finishes to building construction and installation. During the course the student will learn about and install various wall sidings, soffits, and fascia coverings. Prerequisite(s): None

CARP1130 Carpentry Practices 2 0/2/0
This course will allow the student to apply standard and acceptable carpentry practices. Projects might include, but are not limited to, both remodeling and new building additions, renovations, and demolition. Prerequisite(s): None

CARP2106 Footings & Foundations 2 1/1/0
This course prepares the student with the knowledge and skills necessary to complete site layout, footings, and foundations for residential construction. Prerequisite(s): None

CARP2202 Prin of Framing II 3 3/0/0
This course is designed to enhance the student's knowledge of framing concepts from CARP102. The instruction will explore complex applications of floor, wall, stair, and roof construction. Prerequisite(s): CARP1102, CARP1104

CARP2204 Concrete Technology 2 0/2/0
This course prepares the student with the knowledge and skills necessary to complete concrete flat work (basement floors, garage floors, driveways, and sidewalks) for residential construction. Prerequisite(s): CARP2106

CARP2206 Adv Framing Applications 6 0/6/0
This course is designed to increase the student's knowledge and skill level in floor, wall, stair, ceiling and roof framing. During this course the student will construct and install floor, wall, stair, ceiling and roof assemblies. Prerequisite(s): CARP1104

CARP2208 Exterior Finish II 3 0/3/0

This course is designed to increase the student's knowledge, skills, and proficiency in the application of windows, doors, and roofing. Prerequisite(s): CARP1112

CARP2210 Interior/Exterior Finish Prin 3
3/0/0

This course is designed to increase the student's knowledge in the materials and principles used in applying insulation, drywall, doors, interior trim and cabinets as well as exterior wall coverings, soffits, gutters, and decks. Prerequisite(s): CARP1108, CARP1112

CARP2212 Interior Finish II 4 0/4/0

This course is designed to increase the student's knowledge, skills, and proficiency in the application of doors, trim, stair finish, cabinet installation, insulation, and drywall. Prerequisite(s): CARP1108

CARP2214 Exterior Siding 2 0/2/0

This course provides the student an opportunity to install common window and exterior door units, exterior trim, and exterior wall finish materials. Prerequisite(s): CARP1112, CARP2210

CARP2216 Deck Construction 2 0/2/0

This course provides the student with the opportunity to apply the knowledge and techniques necessary to select materials and construct decks, railings and stairs according to a predetermined plan. Prerequisite(s): CARP1112, CARP2210

CARP2218 Soffits, Gutters, Gables 2 0/2/0

This course provides practice for the student in the application of various exterior finish materials to the fascia, soffit and gable areas including special methods for gutters. Prerequisite(s): None

CARP2220 Carpentry Internship 3 0/0/3

This course provides the student with the opportunity to work for a contractor on a construction site practicing the skills learned in the first and second semester of the Carpentry curriculum. The student experiences working with other employees under various working conditions. Prerequisite(s): CARP1108, CARP1110, CARP1112, CARP2106, BLDG1120, BLDG1114

CARP2222 Exterior Finish III 5 0/5/0

This course is designed to increase the student's knowledge, skills, and proficiency in the application of building wraps and wall coverings and decks. Prerequisite(s): CARP2208

CARP2224 Advanced Cabinets 4 1/3/0

This course provides advanced cabinet construction techniques for students. Emphasis is placed upon doors, rollouts, veneering and laminating. Prerequisite(s): CARP1110

CARP2226 Special Projects/Topics 2 0/2/0

The student works with an advisor/instructor to develop a contract with specific content goals in areas deemed applicable to the carpentry industry and the student's career plan. This opportunity may be limited due to conditions such as instructor/lab/material availability. Prerequisite(s): 18 CARP credits

CDEV1105 Development/Guidance 3 3/0/0

This course provides an overview of child development of children from conception through school age, with emphasis in the following areas: physical, cognitive, language, creative, and social emotional. It integrates theory with developmentally appropriate practice in home, center-based, and school settings. In addition, this course gives the student

an introduction to positive child guidance techniques for individual and group settings. Course will help students to understand behavior problems and identify strategies to prevent and resolve problem behaviors. Prerequisite(s): None

CDEV1107 Intro to Early Educ 3 3/0/0

Explore career opportunities with children and investigate a variety of child development programs for children ages birth through eight. Examine job requirements, duties, regulations, and personal characteristics of successful workers. In addition, this course will guide the student in obtaining skills needed to maintain a safe and healthy child development setting. Prerequisite(s): None

CDEV2200 Integrating Play 3 2/1/0

This course examines play during the Infant, Toddler, Preschool and Primary years. Course will examine theories of play, discover how play promotes development, examine the physical environment and its relation to play, and construct play materials appropriate to the play of children. Play is the work of children! Prerequisite(s): None

CDEV2229 Imaginative Learning 3 2/1/0

This course provides an exploration of the home, center or school environment for children birth through school-age. It includes an examination of both indoor and outdoor space in relation to arrangement, maintenance, and evaluation. Students apply their knowledge of the environment's role in an actual work setting. DAP focus is on methods and materials in art, literature, music, math, science, physical, social/multicultural studies. Prerequisite(s): CDEV1105, CDEV1107

CDEV2230 Brain Dvlp & Early Chldhd1 1/0/0

This course is to assist child care providers and individuals who provide services to young children and their families using information about the brain to facilitate the growth and development of the young child. Prerequisite(s): None

CDEV2232 Literacy & Reading 1 1/0/0

This course focuses on how literacy is best developed and what activities child care providers can do to promote the foundation for literacy development. Prerequisite(s): None

CDEV2234 United Children/Youth 1 1/0/0

This course is designed to give child care and professionals that work with children, a variety of information on developmental issues that surround young child care. Each issue will be addressed by a professional within that content area, and explore as well as give information on how to better care for our young children. Prerequisite(s): None

CDEV2236 Occupational Experience1 0/0/1

This course provides an opportunity to apply knowledge and skill in an actual child development setting. Students will demonstrate competence in promoting health, safety, and nutrition; guiding children; arranging learning environments; and communicating with parents. Prerequisite(s): CDEV1102, CDEV1105, CDEV1107, CDEV1108

CDEV2238 Integrating Children with Special Needs 3
2/1/0

This course examines the development and provides hands on experiences of children with special needs in an integrated child care/school age setting. Students integrate knowledge of developmental needs, developmentally appropriate environments, and effective teaching methods. Prerequisite(s): CDEV2229

CDEV2240 Observing & Assessing 3 2/1/0

This course provides the student with an opportunity to observe and assess children's development. Under the

supervision of an instructor, the student observes, records, interprets, and develops plans to strengthen the development of infants through school-age children. Student will construct a child study based on assessments gathered throughout the course of the semester for one specific child. Prerequisite(s): All first year courses

CDEV2242 Infant/Toddler Program 3 3/0/0

This course provides an overview of infant/toddler learning experiences, in either home or center-based settings. Students integrate knowledge of developmental needs, developmentally appropriate environments, and effective caregiving and teaching methods. Prerequisite(s): CDEV1105, CDEV2228

CDEV2243 Infant/Toddler Lab 1 0/1/0

This lab course must be taken with CDEV2242. Prerequisite(s): Concurrent enrollment in CDEV2242

CDEV2244 Parent & Professional Relations 3 3/0/0

This course covers the relationship between the caregiver and the child's family. Explore strategies to maintain professional relationships with co-workers, parents, and outside organizations. Cultural diversity/dynamics, bias, public education, housing, employment, crime, health care, legal services, and social services will be explored. Prerequisite(s): None

CDEV2246 Foundations in Literacy 3 3/0/0

This course is an overview of early language acquisition on how literacy is best developed and what activities child care providers can do to promote the foundation for literacy development. Prerequisite(s): None

CDEV2250 Sign Language 1 0/1/0

This course covers the basic principals of American Sign Language, its proper use with hearing impaired children and adults, and the value of learning non-verbal communication. Prerequisite(s): None

CDEV2252 Paraprofessional Role 1 1/0/0

This course covers the basic services that a Paraprofessional will provide for children in a classroom setting. Such things are not limited to: professionalism, clerical duties, understanding of children with disabilities, formal and informal communications, classroom management and record keeping and identifying the needs of remedial students. Prerequisite(s): None

CDEV2280 Play Development 1 1/0/0

This course is to provide assistance to child care providers and individuals who provide services to young children and their families in using information about play and its relationship to development to facilitate the growth and development of young children. Prerequisite(s): None

CDEV2290 Internship 3 0/0/3

This course provides an opportunity to apply knowledge and skill in an actual child development setting. Students implement a variety of learning experiences that are developmentally appropriate for a specific group of children and culturally sensitive. Prerequisite(s): Instructor approval

CHEM1050 Lab Calculations/Procedures 1 1/0/0

This course prepares students to apply mathematics (percents, metric system, molar mass, equivalent mass, molarity, normality, ratios, etc.) to formulas used in chemistry, histotechnology and the medical laboratory courses. The course emphasizes practical application of lab equations used to calculate quantities required to prepare chemical

solutions/regents. An introduction to the basic laboratory measuring equipment will also be included. This course is intended to anyone taking a chemistry course. Prerequisite(s): None

CHEM1100 Fund Concepts Chemistry3 2/1/0

Meets MNTC Goal Areas 2 and 3. Course deals with substances, their structures and properties, the changes they undergo, and the laws that govern those changes. Intended for prospective elementary teachers, non-science majors, and those who need background for General Chemistry. Prerequisite(s): MATH0090 or assessed into MATH1020 or MATH1114.

CHEM1101 Prin of General Chemistry4 3/1/0

Meets MNTC Goal Areas 2 and 3. This course will provide the student with a basic understanding of the general principles of chemistry. It will lend itself to the topics and practical applications that are so important to the laboratory. This course will provide a adequate background for those students who intend to pursue a specific program (for example, MLT, PT, HT, TR, DH) to its fullest extent at this institution and also for those students who intend to go on to a four-year college. Prerequisite(s): High School Chemistry and MATH0090

CHEM1104 Medical Chemistry 4 3/1/0

An introductory course covering the analytical principles, techniques and correlation of results in the science of body chemistry. Included are types of instrumentation, calculations, preparations of reagents, Quality Assurance and Quality Control, specimen collection, transportation, analysis and results reporting. Prerequisite(s): CHEM1101

CHEM1111 General Inorganic Chemistry I 5 4/1/0

Meets MNTC Goal Areas 2 and 3. A two semester (Chemistry 1111-1112) freshman qualitative course covering chemical reactions, thermochemistry, gas laws, quantum theory, bonding, equilibria of reactions and solutions, rates of reactions, ionic solutions, acids and bases. Prerequisite(s): High School Chemistry, MATH1020

CHEM1112 General Inorganic Chemistry II 5 4/1/0

Meets MNTC Goal Areas 2 and 3. A two semester (Chemistry 1111-1112) freshman qualitative course covering chemical reactions, thermochemistry, bonding, equilibria of reactions and solutions, rates of reactions, acids and bases. Also included will be the topic of: properties of ions and the complexes of ions in solutions, etc. Lab consists of a survey of qualitative analysis and an introduction to carbon chemistry. Prerequisite(s): CHEM1111

CHEM2224 Organic Chemistry I 5 4/1/0

Meets MNTC Goal Areas 2 and 3. The first series of two courses designed to introduce the rudiments of organic chemistry to those students who require one year of organic chemistry in order to prepare for a specialized program. The following topics will be included: structures and properties of organic compounds, methane and alkanes, stereo chemistry, substitution and elimination reactions, electrophilic and free radical addition, alkenes and alkynes and various functional groups. Topics also covered will include: Alicyclic hydrocarbons, benzene and the aromatics, aromatic-aliphatic compounds, alcohols and ethers. Prerequisite(s): CHEM1112

CHEM2225 Organic Chemistry II 5 4/1/0

Meets MNTC Goal Areas 2 and 3. The following topics will be included: stereochemistry of neighboring groups, aldehydes and ketones, carboxylic acids, amines, phenols, carbanions, esters, aromatics, heterocyclic compounds, macromolecules, and the possible addition of selected topics such as

carbohydrates, fats, amino acids, and proteins.
Prerequisite(s): CHEM2224

CIVL1102 Survey I: Fundamentals 2 1/1/0
The student will learn the principles of vertical distance measurement as well as construction staking and the compiling of field notes typical of the civil engineering field. This course will focus on the use of various surveying equipment and procedures. Prerequisite(s): None

CIVL1119 Survey II: Land Surveys 3 1/2/0
This course covers survey principles involved in Civil Engineering Technology - to include topographic surveys, utilities, drainage and roadway alignment. This course emphasizes the use of Total Station and GPS for collecting data and CAD/Civil Software for processing data. Prerequisite(s): CIVL1102

CIVL1138 CADD II: Plan Layout 3 2/1/0
This course first introduces the students to industry specific civil design software. They will learn the concepts relating to civil engineering drawings including: topography, site planning, mapping, and downloading survey data to create digital terrain models. Prerequisite(s): CIVL1109

CIVL2206 Construction Surveys 2 0/2/0
This course covers construction staking, methods, types of controls, field notes typical of the civil engineering field, and staking practices. Students will conduct field procedures and documentation necessary to complete staking. Prerequisite(s): CIVL1109

CIVL2209 Construction Inspection 3 1/2/0
This course involves the study and performance of procedures necessary in the inspection and documentation of general construction of public works projects. Topics include project management, base inspection, concrete and bituminous. Prerequisite(s): CIVL1102

CIVL2210 Road Design 3 1/2/0
The student will complete several drawings and computations typical of those used in the design of roadways. These may include control line location map, topographic drawing, cross sections, plan and profile earthwork computations with and introduction to Civil Design Software packages. Prerequisite(s): CIVL1119, CIVL1138

CIVL2230 Civil Engineering Tech Intern 3 0/0/3
The civil engineering technology internship provides the student with an opportunity to apply skills and knowledge acquired in prior courses to the occupational setting. Students will develop a plan for the internship with the cooperation of the employer and the instructor. Students will practice surveying and design skills related to civil engineering projects. Prerequisite(s): CIVL1138

CIVL2232 Survey III: Legal Surveys 3 2/1/0
The student will apply history, principles, rules and laws pertaining to land surveying. The student will research land survey records, identify property boundaries, reconstruct land surveys and draft legal descriptions. Students will also participate in boundary survey projects off-campus. Prerequisite(s): CIVL1119

CIVL2234 Utility Design 3 2/1/0
The student will learn principles of sanitary, storm, and water system layouts, design, and construction. Design criteria and standards, plan and profile principles, cost estimating, construction staking and inspection of the different systems will be emphasized. Prerequisite(s): CIVL1119, CIVL1138

CIVL2238 CADD III: Project Design 3 2/1/0
This course will focus on the application of civil design computer aided drafting software for the completion of a project applying principles of civil engineering drawing. Prerequisite(s): CIVL1138

CIVL2240 Intro to GIS 3 3/0/0
The course will discuss different types of geographic information systems (GIS) and their capabilities, with the main focus on ESRI ArcMAP 9.x software. Topics will include GIS data collection and input, GIS data types and basic mapping concepts. Prerequisite(s): CPTR1100

CIVL2244 Survey IV: Equipment Software 3 2/1/0
This class covers the application of TDS Survey Pro software as it applies to the TDS Ranger and Recon total stations data collectors. The students will learn these various software routines to make them more efficient with their day to day surveying. Prerequisite(s): CIVL1102

CIVL2246 Hydrology 3 2/1/0
This course covers structural and runoff calculators of hydrology in the design of detention ponds. Students will create a pond from contours and apply a variety of embankment types for terrain modeling. A number of different methods will be used to support design criteria and justify design. GIS and CAD software will be applied in this course. Prerequisite(s): CIVL1119

CONE1102 Intro Elec Circuit Theory 4 2/2/0
This introductory course provides the student with the knowledge of electrical theory including atomic structure, Ohm's Law, complex circuits, sine wave principles, inductive and capacitive circuits as it relates to the National Electrical Code. Prerequisite(s): None

CONE1104 Intro to NEC 2 2/0/0
This course provides the student with an introduction to electrical material used in industry and also the National Electrical Code. The student develops basic skills and understanding of the National Electrical Code book and how it applies to electrical applications in the field. Prerequisite(s): None

CONE1107 Intro Residential Wiring 3 1/2/0
This course provides a fundamental technical understanding of residential wiring. In addition, basic wiring skills for residential occupancies will be practiced in lab settings for residential occupancies applying National Electrical Code standards. Prerequisite(s): None

CONE1108 Electrical Circuit Theory 4 2/2/0
This course provides the student with an understanding of complex RLC circuits, single-phase and three-phase transformer connections and calculations. Prerequisite(s): CONE1102

CONE1110 AC/DC Motors/Generators 4 2/2/0
This course provides a fundamental understanding of AC and DC motor generator theory and basic skills. This course includes types, construction, operation, installation, and maintenance of AC and DC motors and generators. Prerequisite(s): BLDG1102, CONE1102

CONE1112 Residential Wiring 3 1/2/0
This course provides students with expanded technical understanding and skills necessary for residential wiring. Students will be provided with experience for installations common to residential structures including general receptacles, lighting and designated circuit layout and installation. Prerequisite(s): CONE1107

CONE1114 National Electrical Code 2 2/0/0
This course provides students with an understanding of the National Electrical Code articles related to overcurrent protection, raceways, special systems, panelboards, motors, compressors, transformers and the State Electrical Act. Prerequisite(s): CONE1104

CONE1116 Conduit/Tool Applications 2 0/2/0
Numerous applications and skills will be developed in this course including bending, threading, and installation of various types of conduit. This course also provides a review of the operation and safety of both hand and power tools used in the construction electricity field. Prerequisite(s): BLDG1102

CONE1118 Electrical Services 3 2/1/0
This course covers requirements and installation of service entrance equipment. Topics included are service materials, installation procedures, meters, service and conduit sizes, panel types, bonding, grounding and overcurrent protection. Prerequisite(s): BLDG1102, CONE1104

CONE1120 Electrical Blueprints 3 2/1/0
The student will learn to read commercial blueprints with an emphasis on electrical circuitry including lighting, power, service, feeders, and special systems. The course also introduces the student to CAD drawings. Prerequisite(s): CONE1124

CONE1122 Intro to Materials 1 0/1/0
This course provides the student with an introduction to electrical material used in industry. The student develops basic skills and understanding of the material and how it applies to electrical applications in the field. Prerequisite(s): None

CONE1124 Intro Elec Blueprint Read 2 1/1/0
This course provides the student with a working knowledge of residential blueprints and specifications. The student gains an understanding of blueprints, then interprets and applies this knowledge to the electrical industry. Prerequisite(s): None

CONE1140 Power-Limited Exam Prep 2 2/0/0
This course covers the knowledge base associated with the Minnesota Power-Limited Technician license and includes all of the topics identified in the Minnesota Board of Electricity PLT study guide. Subjects covered include those found in the National Electrical Code and in the Minnesota Laws and Rules. Additional subjects covered include technical terminology, formulas and procedures that are essential elements of the PLT examination, not all of which are found in the NEC. Prerequisite(s): None

CONE2202 Heating/Cooling Controls 3 1/2/0
This course introduces basic electric heating, gas, oil, and heat pump and cooling system installation and control. Topics included are installing wiring for heating and air conditioning systems, replacing controls, measuring instruments, and schematic interpretation. Prerequisite(s): CONE1102, CONE1107, CONE1116

CONE2205 Intro Commercial Wiring 3 1/2/0
This course examines the material and design aspects of commercial wiring. Topics included are raceways, boxes, design requirements for conduit layouts, circuit overcurrent protection and lighting. Prerequisite(s): BLDG1102, CONE1104, CONE1122

CONE2206 Intro Motor Control Applic 3 2/1/0

This course provides an understanding of motor control symbols, line diagrams, contractors, starters, and operating circuits. Lab procedures demonstrate components, circuitry, and operation learned in theory. Measured data is recorded and interpreted. Prerequisite(s): CONE1108, CONE1110

CONE2208 Prog Logic Controllers 2 1/1/0
This course covers the theory, operation, installation, hardware, software, and practical applications of the programmable logic controllers. Basic PLC programming techniques for counters, timers, and sequencers will be presented. Prerequisite(s): None

CONE2211 Electronic Motor Control 3 2/1/0
This course provides application of basic theory and operation to electronic motor control including semiconductor, rectifiers, regulators, and amplifiers. Prerequisite(s): BLDG1102, CONE1108

CONE2212 Commercial Wiring 3 1/2/0
This course covers materials and design aspects of commercial wiring, in particular, lighting and fuse applications. Topics included are lighting and lamp installation and selection, fuse selection, special outlets, load schedule, short circuit calculations and emergency illumination. Prerequisite(s): BLDG1102, CONE2205

CONE2214 Industrial Wiring 2 1/1/0
This course covers the installation methods and materials used in industrial wiring. Topics included are transformers, busways, motor installation, industrial metering, overcurrent system coordination, ground detection, grounding systems, power factor correction, surge protection, distribution, special systems, and industrial hazardous locations, and the study of the National Electrical Code relating to these topics. Prerequisite(s): BLDG1102, CONE1114

CONE2216 Motor Control Application 3 1/2/0
This course provides an advanced understanding of circuits controlling motors. Topics include jogging, braking, plugging, reduced voltage starting, phase loss protection, latching relays, time delay relays, and safety requirements. Lab procedures demonstrate components, circuitry, and operation learned in theory. Measured data is recorded and interpreted. Prerequisite(s): CONE2206

CONE2220 Electrician Internship 3 0/0/3
This course provides the student with the opportunity to work for an electrician or in another approved electrical setting. The student will experience working at the job site with other employees and under various working conditions. Prerequisite(s): 25 CONE credits

CONE2222 Adv Prog Logic Controllers 3 1/2/0
This course presents practical applications of programmable logic controllers with emphasis on advanced programming techniques and analog modules, and input devices, and hands-on wiring of PLC circuits. PLC programs are created and installed for operation of actual electrical equipment. Prerequisite(s): CONE2208

CONE2225 Transformers 2 0/2/0
This course covers the concepts of transformer operation. Single-phase and three-phase (polyphase) transformer operation and installation methods are explored. Included in the course are the following topics: transformer operation, transformation relationships, transformer losses, transformer types, transformer testing, series and parallel operation, connections, instrument transformers, and maintenance procedures. National Electrical Code requirements for transformer installations are developed and utilized. Prerequisite(s): CONE1108

CONE2226 Agricultural Wiring 2 1/1/0
This course introduces the design of farm wiring systems. Electrical distribution, dairy, poultry and hog structures will be included. Field crop storage, hog, dairy, poultry wiring, farm shop and machinery shed wiring, irrigation wiring along with farmstead lighting are also presented. Prerequisite(s): BLDG1102, GSMS1110

CONE2228 Troubleshooting 1 0/1/0
This course provides an application of principles of construction electricity to a variety of situations for the purpose of identifying and solving electrical problems. Emphasis is placed on electrical circuits pertaining to commercial, industrial and motor control applications. Prerequisite(s): 36 CONE credits

CONE2230 Load Management Controls 2 1/1/0
This course provides an understanding of load management control for power company off-peak systems. Time clock, radio, ripple and demand controller wiring is covered. Prerequisite(s): CONE1107, CONE1108

CONE2232 Intro to Cptr Aided Drafting 1 0/1/0
This course provides the student with basic application experience in computer aided drafting (CAD). The student will use CAD to apply electrical layouts to complete residential blueprints. Prerequisite(s): BLDG1114

CONE2234 Hydraulics/Pneumatics 2 1/1/0
This course provides the knowledge of pneumatic and hydraulic controls as necessary for the electrician employed in an industrial setting. Prerequisite(s): None

CONE2236 Industrial Motor Maintenance 2 1/1/0
This course includes principles of industrial motor maintenance and experience with the maintenance and troubleshooting situations common to industrial settings. Prerequisite(s): CONE1110

CONE2238 Low Voltage Wiring 2 1/1/0
This course provides students with an understanding of installation procedures and National Electrical Code requirements for coax, telephone, fire alarm, security, fiber optic, cat 4, cat 5, and other low voltage wiring systems. Prerequisite(s): None

CONE2240 Code Update 1 1/0/0
This course provides the experienced electrician and advanced student with an overview of the National Electrical Code and the State Electrical Act and can be used in preparing for the journeyman or masters electrical exam. The course is approved for Continuing Education hours. Prerequisite(s): 30 CONE credits or experience in the electrical field

CONE2244 Natl Elec Code Changes 1 1/0/0
This course covers the recent changes in the National Electrical Code and how it will affect current wiring practices. The course is approved for Continuing Education hours. Prerequisite(s): CONE1104 or experience in the electrical field

CONE2246 Advanced Electronics 2 1/1/0
This course provides theory, operation, and practical applications of various field effect transistors, thyristors, photosensitive devices, sensing devices and wave chopping circuitry. Prerequisite(s): CONE2211

CONE2247 Advanced Electronics 3 1/2/0
This course provides theory, operation, and practical applications of various field effect transistors, thyristors, photosensitive devices, sensing devices and wave chopping circuitry. Prerequisite(s): CONE2211

CONE2248 Code Applications 2 1/1/0
This course applies the principles of the National Electrical Code to Job specific situations. Prerequisite(s): CONE1104, CONE1114

CONE2250 Special Topics/Projects 2 0/2/0
The student works with an advisor and instructor to develop a contract with specific goals in areas deemed applicable to the construction electricity industry and the student's career plan. This opportunity may be limited by conditions such as instructor/lab/material availability. Prerequisite(s): 12 CONE credits

CONM1102 Site/Building Layout 2 1/1/0
This course provides the student with the basic knowledge and hands-on skills necessary to lay out a building site and establish elevations for construction. Prerequisite(s): None

CONM1108 Principles of Estimating 4 2/2/0
This course covers material, labor and equipment estimating which make up the primary portion of the direct costs used in a construction bid. These procedures are the first step in completing accurate bids for construction projects of all sizes. Prerequisite(s): None

CONM1124 Building Systems 3 3/0/0
This course is a comprehensive treatment of the various techniques, systems and methodologies utilized in the construction industry and will help the student prepare for the responsibilities of supervision on a modern construction project. Prerequisite(s): None

CONM2204 Materials Testing 3 1/2/0
This course covers inspection techniques, methods of material measurement, documentation, material sampling and testing methods for soils and concrete. Prerequisite(s): None

CONM2206 Building Codes 2 2/0/0
This course is designed to introduce the Uniform Building Code to students in the construction field where a basic knowledge of the code's requirements are needed. Emphasis will be placed on the development and proper use of the code. Prerequisite(s): None

CONM2208 Construction Bidding 2 1/1/0
This course will explore standard construction contract documents and project estimating procedures and their use in building a competitive bid. Prerequisite(s): CONM1108

CONM2210 Construction Scheduling 3 2/1/0
Planning and scheduling are important management tools. In this course students will work with several scheduling techniques commonly used in the construction industry to bring projects to timely and economically successful ends. Prerequisite(s): BLDG1120

CONM2212 Site Management 3 2/1/0
This course covers construction site management from the standpoint of best utilization of site, facilities and services in a safe and efficient manner to complete construction projects. Prerequisite(s): None

CONM2214 Safety Management 3 2/1/0
This course includes construction management applications in the areas of safety and health. Students will have an

opportunity to write construction company safety policies and work directly with other governmental safety and health programs and policies as they are used by construction companies. Prerequisite(s): None

CONM2216 Computer Estimating 2 1/1/0
This course provides the fundamentals of estimating utilizing computer estimating software and/or Timberline estimating software and explores the use of spreadsheet and database software in estimating. Prerequisite(s): CONM2208, CPTR1104

CONM2222 Construction Mgmt Internship 2 0/0/2
This course will provide construction management students with an opportunity to apply and extend their knowledge, practice their skills, integrate behaviors and explore areas of employment within the construction industry. Students will perform activities consistent with program outcomes in an industry setting with the supervision of the site employer. Prerequisite(s): Completion of 45 program credits or advisor approval

COSM1102 Preclinic Intro Cosmetology 3 1/2/0
This course covers shampooing, draping, wet hairstyling, hair and the disorders of the hair, it also includes bacteriology and decontamination. Prerequisite(s): None

COSM1103 Shampooing & Rinsing 2 1/1/0
This course covers shampooing and draping. Learner will learn importance of selecting correct shampoo for various hair types. Prerequisite(s): None

COSM1104 Preclinic Intro Manicurist 3 1/2/0
This course provides an introduction to skin and nail disorders, professional image, Minnesota laws and rules, safety and sanitation, anatomy, electricity and light therapy, chemistry and salon management. Prerequisite(s): None

COSM1105 Hairstyling 3 1/1/1
This course will instruct you how to conduct services in a safe environment. You will learn styling and finishing techniques to complete a hairstyle to the satisfaction of the client. Prerequisite(s): None

COSM1106 Preclinic Intro Estheticist 3 1/2/0
This course provides an introduction to skin disorders, superfluous hair removal, professional image, Minnesota laws and rules, safety and sanitation, anatomy, electricity and light therapy, chemistry and salon management. Prerequisite(s): None

COSM1107 Haircutting 3 1/1/1
This course will help you develop a strong foundation in haircutting. You will learn basic sectioning and cutting techniques. You will learn how to use scissors, razors, and clippers to achieve a strong foundation in haircutting. Prerequisite(s): None

COSM1108 Preclinic Hair Care 3 1/2/0
This course provides elementary hair service skills including hair cutting, thermal styling, artificial hair, scalp treatments and electricity/light therapy. Prerequisite(s): Pre/Corequisite: COSM1102

COSM1110 Preclinic Nail Care 3 1/2/0
This course provides students with the opportunity to develop the required speed and confidence necessary for entry-level manicuring and pedicuring skills. Students will perform manicures and pedicures on each other and on clients under the supervision of an instructor. This course also covers a

variety of artificial nails and the safety precautions that accompany them. Prerequisite(s): Pre/Corequisite: COSM1102

COSM1111 Properties of the Hair & Scalp 2 1/1/0
In this course you will learn the different layers of the hair and how it can be damaged. It is essential for you to be able to analyze a client's hair and determine what type of damage the hair has experienced and prescribe corrective treatment. Prerequisite(s): None

COSM1112 Preclinic Chemical Control 3 1/2/0
This course provides an introduction to cosmetology chemicals and their applications. This includes curl reformation, permanent waving, soft curl perming, and chemical relaxing and hair pressing. Prerequisite(s): Pre/Corequisite: COSM1108, COSM1110

COSM1113 Chemical Texture Services 3 1/1/1
In this course you will perform hair relaxation and wave formation techniques in accordance with manufactures direction you will consult with clients to determine their needs and preferences. You will conduct services in a safe environment taking measures to prevent the spread of infections and contagious diseases. Prerequisite(s): None

COSM1114 Preclinic Hair Color 3 1/2/0
This course provides an introduction to temporary, semi-permanent, permanent and de-colorization hair color services. Prerequisite(s): Pre/Corequisite: COSM1112

COSM1115 Braiding/Extensions/Wigs 2 1/0/1
This course will instruct you how to do non surgical hair additions. You also will learn basic braiding procedures to create hairstyles that are pleasing to clients. Prerequisite(s): None

COSM1116 Preclinic Skin Care 3 1/2/0
This course provides an introduction to dermatology, facials and make-up. It also covers facial treatments, basic manipulations, facial packs and masks. In addition students receive training in the application of make-up highlighting and shadowing. The basics in anatomy of the head, face, and neck and also students are instructed in the use of high frequency current in treating skin disorders. Prerequisite(s): Pre/Corequisite: COSM1102

COSM1118 Advanced Hair Care 3 1/2/0
This course provides advanced skill training in hair cutting, chemical control, and hair color. Prerequisite(s): Pre/Corequisite: COSM1114

COSM1120 Salon Preparation 3 2/1/0
This course prepares students for clinical experiences including salon management, Minnesota cosmetology laws and rules, and retail operations. Prerequisite(s): Pre/Corequisites: COSM1114 (Cosmetology), COSM1116 (Esthetician)

COSM1121 Histology of the Skin 2 1/1/0
In this course the student will learn the basic structure of the skin and its function. The student will learn how to conduct services in a safe environment, and how to take measures to prevent spreading infectious and contagious diseases. Prerequisite(s): None

COSM1122 Clinic I 3 0/3/0
This course provides students with the opportunity to develop the practical skills necessary for entry-level salon work.

Prerequisite(s): Pre/Corequisites: COSM1110 or COSM1114 or COSM1116

COSM1123 Facials/Make-Up/Hair Removal 3
1/1/1

In this course the student will learn the uses of various skin care products and how to apply them to the different skin types. The student will learn basic make up application including artificial lashes. The student will learn basic massage movements to assist you in providing basic skin care services. Prerequisite(s): None

COSM1124 Clinic II 3 0/3/0

This course provides students with an opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Pre/Corequisite: COSM1114 or COSM1116

COSM1125 Nail Structure & Growth 1 1/0/0

In this course the student will learn the structure of the nail. The student will recognize the various disorders and which disorders can be serviced in the salon. Prerequisite(s): None

COSM1126 Clinic III 3 0/3/0

This course provides students with an opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Pre/Corequisite: COSM1116 or COSM1118

COSM1127 Hair Color 3 1/1/1

In this course you will learn how to conduct a color service in accordance with a client's needs. You will learn the importance of using a variety of salon products and techniques to achieve the appropriate color outcome. Prerequisite(s): None

COSM1128 Clinic IV 3 0/3/0

This course provides students with the opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Pre/Corequisite: COSM1114

COSM1131 Manicuring/Pedicuring 2 1/0/1

In this course students will learn basic manicuring and pedicuring procedures. Students will learn how to provide services in a safe environment. Prerequisite(s): None

COSM1132 Clinic VI 3 0/3/0

This course provides students with an opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Pre/Corequisite: COSM1114

COSM1133 Anatomy of the Head, Face & Neck 2
1/1/0

In this course you will learn basic anatomy of the head, face, and neck so that you can perform all the services you are trained and qualified to do. Prerequisite(s): None

COSM1134 Nail Clinic/License Prep 3 0/3/0

This course prepares students for their written examinations and skill certification. Prerequisite(s): Pre/Corequisite: COSM1118

COSM1135 Advanced Nail Techniques 3
1/1/1

In this course students will learn how to conduct a client consultation to determine client needs and preferences. Students will learn to work with a variety of salon products that will enable them to provide nail services on clients. Prerequisite(s): None

COSM1136 Cosmetology License Prep 3
1/1/1

This course prepares students for their state examinations and completion of skill certification. Prerequisite(s): Pre/Corequisite: COSM1118

COSM1137 Principles of Hair Design1 1/0/0

This course will give you an understanding of design and how to incorporate design into creating a pleasing hairstyle for each client's facial features. Prerequisite(s): None

COSM1138 Estheology Clinical/License Prep 3
0/3/0

This prepares students for their written examinations and skill certification. Prerequisite(s): None

COSM1140 Clinic VII 3 0/3/0

This course provides students with an opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Pre/Corequisite: COSM1114

COSM1141 Chemistry/Electricity 2 1/1/0

In this course you will learn of the two types of electricity, how they are measured and the safety devices pertaining to electricity. Many of the services you will provide actually change the hair, skin, and nails chemically. It is essential that you have a good working knowledge of chemistry in order to provide the safest and most effective services. Prerequisite(s): None

COSM1142 Salon Practicum I 3 0/0/3

This course provides students with an opportunity to develop the practical skills necessary for entry-level salon work. Prerequisite(s): Instructor approval or 32 Cosmetology credits

COSM1143 Salon Business 2 1/1/0

In this course the student will learn how to manage time to provide efficient client services. The student will learn the necessary steps to retain clients. The student will learn how to market salon products and maintain business records. Prerequisite(s): None

COSM1144 Salon Practicum II 6 0/0/6

This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Instructor approval or 32 Cosmetology credits

COSM1145 Infection Control 2 1/1/0

In this course you will learn the nature of various organisms, how they relate to disease and how their spread can be prevented in the salon and at school. Prerequisite(s): None

COSM1146 Manicurist Clinic I 3 0/3/0

This course provides students with an opportunity to develop the practical skills necessary for entry level salon work. Prerequisite(s): COSM1104, COSM1110

COSM1147 Minnesota Cosmetology Laws and Rules 2
1/1/0

This course prepares students for the Laws and Rules portion of their state license examination. Prerequisite(s): None

COSM1148 Superfluous Hair Removal 2
1/1/0

This course covers the different methods of hair removal that are being used by nail technicians in salons and day spas. Prerequisite(s): None

COSM1149 Advanced Hair Design 1 0/1/0
This course provides advanced skill training in hair cutting, chemical control, and hair color. Prerequisite(s): None

COSM1150 Salon Operations I 1 0/1/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among the skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1152 Salon Operations II 2 0/2/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1154 Salon Operations III 3 0/3/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1155 Professional Image 1 1/0/0
This course relates to proper conduct and business dealings with employers, clients and co-workers, as well as others with whom you come in contact with. Prerequisite(s): None

COSM1156 Salon Operations IV 4 0/4/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1158 Salon Operations V 5 0/5/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1160 Salon Operations VI 6 0/6/0
This course gives students additional time to complete the required services and/or hours for licensure. Content for this course is chosen from among skills already gained in other courses. The practice will be performed on live models under the supervision of the instructor in the salon setting on the clinic floor. Prerequisite(s): Pre/Corequisites: COSM1136 (Cosmetology), COSM1138 (Esthetician), and COSM1134 (Manicurist)

COSM1162 Airbrushing Techniques 1 1/0/0
In this course you will be learning the art of airbrushing techniques on natural and artificial nails. This course will

include client consultation, safety, and sanitation. Prerequisite(s): Licensed manicurist, licensed cosmetologist, manicuring student, or cosmetology student

COSM1164 Barbering 1 1/0/0
In this course you will learn the art of clipper cutting and beard design. This course will include client consultation, safety, and sanitation. Prerequisite(s): Licensed cosmetologist or cosmetology student

COSM1166 Alexandria Body Sugaring 1 1/0/0
In this course students will learn how to remove hair using the Alexandria Professional Body Sugaring advanced system. Theory and thorough knowledge of the correct techniques employed in the practice of body sugaring will be taught. Prerequisite(s): Licensed or a current student in the cosmetology, esthetic, or manicuring field

COSM1170 40-Hr Refresher Course 2 1/1/0
This course gives students the Minnesota 40-hour refresher course requirements needed for license renewal. Prerequisite(s): Previous Minnesota cosmetology license

COSM1172 155-Hr React Crs: Practical 3 0/3/0
This course gives students the practical portion of the Minnesota 155-hour reactivation course requirements for reactivating a license. Prerequisite(s): Previous Minnesota cosmetology license

COSM1174 155-Hr React Crs: Theory 3 3/0/0
This course gives students the theory portion of the Minnesota 155-hour reactivation course requirements for reactivating a license. Prerequisite(s): Previous Minnesota cosmetology license

COSM1176 155-Hr React Crs: License Prep 1 1/0/0
This course prepares students for their written and practical examinations required for reactivating a license. Prerequisite(s): Previous Minnesota cosmetology license

CPTR1100 Fund Computer Concepts 1 0/1/0
This course provides a general overview of the frequently-used functions of a personal computer. Computer hardware, operating systems, electronic mail, Internet and a brief introduction to an office software package will be covered. Prerequisite(s): None

CPTR1104 Intro to Computer Tech 3 2/1/0
This course covers the operation of the personal computer hardware and software. The course is an overview of a personal computer operating system, word processing, spreadsheets, presentation, e-mail, scheduling, Internet, and database management software. Prerequisite(s): None

CPTR1106 Microcomputer Databases 3 2/1/0
This course covers database concepts, design, and construction using the latest database software. Topics include database normalization and table relationships, database objects, file creation, file manipulation, queries, macros, form development, and report generation. Database programming concepts will also be introduced. Prerequisite(s): None

CPTR1108 CISCO 1 3 2/1/0
This course covers the OSI model, basic networking math and basic network devices. This is an introduction to networking. Prerequisite(s): None

CPTR1110 Visual Basic Program I 3 2/1/0

This course covers an introduction to the Visual Basic programming language. It covers language basics and program structure. Topics include, graphical interface design and development, control properties, event-driven procedures, variables, scope, expressions, operators, functions, decision-making structures, looping structures, and database access. Prerequisite(s): None

CPTR1112 Visual Basic Program II 3 2/1/0
This course is the second and final course in the BASIC programming language. Topics include looping, menus, arrays, subroutines, sorting, strings and files. Prerequisite(s): CPTR1110

CPTR1114 COBOL Programming I 3 2/1/0
This course is an introduction to the COBOL language and covers the fundamentals of the COBOL language and programming techniques. Programming assignments are completed in the lab. Topics include sequential file access and report formatting. Prerequisite(s): None

CPTR1118 CISCO 2 3 2/1/0
This course covers additional OSI layer topics, network routing and auditing. Students learn and practice accepted router configuration procedures. Prerequisite(s): CPTR1108

CPTR1122 Microcomputer Maintenance 3 1/2/0
This course covers the operation, diagnosis, troubleshooting, and basic repair of microcomputer components. Topics include hardware compatibility, system architecture, memory, input devices, video displays, disk drives, modems, and printers. Prerequisite(s): None

CPTR1128 RPG/OS400 I 4 2/2/0
This course is an introduction to RPG programming and AS400 system operations. You will learn the basics of operating the AS400 and begin writing RPG programs. These programs will include the building of physical files, writing RPG code, compiling, error finding, and producing reports. A strong emphasis will be put on developing logic to program more intermediate RPG programs. A high concentration will be on the structure of the student's calculation specifications. Students will learn how to add, delete and update data to physical files through their RPG programs. Prerequisite(s): None

CPTR1138 Information Systems 3 2/1/0
This course is an introduction to information systems. Topics include an overview of data communications and information systems used in a variety of organization types, network hardware, software, topologies and resources, hardware and communications standards, and the systems development life cycle. Prerequisite(s): None

CPTR1142 Network Essentials 3 2/1/0
This course covers the ability to implement, administer, and troubleshoot information systems. Prerequisite(s): None

CPTR1148 Microcomputer Operating Sys 3 1/2/0
This course covers basic information about computer hardware and software and the use of the Windows operating system. Topics include file management techniques, utilizing common screen elements, multi-tasking, object linking, and customizing the desktop. Prerequisite(s): None

CPTR1150 Adv Microcomputer OS 3 1/2/0
This course covers basic information about computer hardware and software and the use of advanced Windows as the operating environment. This course prepares students for a certification exam. Prerequisite(s): CPTR1148

CPTR1160 Practical Math-Spreadsheet 3 2/1/0
This course combines spreadsheet concepts, development, and use. Topics include formulas, functions, and graphs with an emphasis on business math applications. Prerequisite(s): None

CPTR1164 Word Processing for Technicians 3 2/1/0
This course covers the basics of word processing for technicians. The emphasis is on functional use, forms design, and template construction as applied to technical documentation. Prerequisite(s): None

CPTR1166 Word Processing and Spreadsheets 4 2/2/0
This course combines spreadsheet concepts, development, and use. Topics include formulas, functions, and graphs with an emphasis on business math applications. This course covers the basics of word processing for technicians. The emphasis is on functional use, forms design, and template construction as applied to technical documentation. Prerequisite(s): None

CPTR1170 Web Engineering I 3 2/1/0
This course is an introduction to programming and maintaining professional Web pages for the business environment. Topics will include page design, authoring tools, accessibility issues, and Web page and Web site development. Focus will be given to client-side programming languages such as HTML and JavaScript, Web server software, Web server maintenance, and Internet protocols. Prerequisite(s): None

CPTR1178 Robotics 3 2/1/0
This course teaches basic robot building, operation, and troubleshooting. Students will build and program robots to meet the current class requirements. Students will use elements of project management. Students will document the various aspects of robot building, operation and troubleshooting. Prerequisite(s): CPTR1104

CPTR2200 CISCO 3 3 2/1/0
This course is a study of Ethernet problems and solutions. The course covers Ethernet segmentation options and VLAN configuration. The student will practice solving these problems. Prerequisite(s): CPTR1118

CPTR2208 CISCO 4 3 2/1/0
This course covers WAN configuration and remote access configuration. Students will practice design and configuration of systems to solve WAN and remote access problems. Prerequisite(s): CPTR2200

CPTR2220 COBOL Programming II 3 2/1/0
This is the second course in COBOL programming language. Topics include sorting, table processing, data manipulation, control break processing, sequential file maintenance, indexed and relative files. Prerequisite(s): CPTR1114

CPTR2224 Linux I 3 2/1/0
This course deals with Linux installation, configuration and system administration. This course lays the groundwork for continue study of Linux. Prerequisite(s): CPTR1148 or CSEC1104

CPTR2228 RPG/OS400 II 4 2/2/0
This course is a continuation of the RPG/OS400 I course with more advanced RPG programming and OS400 operations introduced. A strong emphasis will be put on developing screen programs that call one another and pass parameters

between them. A large programming project will be given the student at mid-semester in which they will develop many programs that are related and dependent on each other. Prerequisite(s): CPTR1128

CPTR2230 Struct Query Language 3 2/1/0
This course covers the basics of SQL (Structured Query Language) programming. SQL is a popular computer language that is used by small and large business organizations and computer programmers. The primary purpose of SQL is in working with databases and relational database management systems to store, retrieve, edit, manipulate and format data for end users and decision makers. Prerequisite(s): CPTR1106

CPTR2234 Linux II 3 2/1/0
The primary focus of this course is Linux networking, security, ethics and privacy. Prerequisite(s): CPTR2224

CPTR2236 Network Security 3 2/1/0
This course deals with the understanding of network security and its importance to protect digital information assets. Students will learn about the various security threats and how to implement and manage systems to guard against them. Prerequisite(s): CPTR1148, CPTR2272

CPTR2240 Database Administration 3 2/1/0
This course covers the tasks and duties of administering a relational network database server and database design theory and practice. Students learn to analyze a business situation and use database design principles to develop a database solution, as well as learn to administrate a database in a business environment. Students will learn how to install, manage, secure, and optimize a relational network database server preparing them for the role of a database administrator. As well as database concepts the relational database model, normalization, and data integrity. Prerequisite(s): CPTR2230

CPTR2242 Java Programming 3 2/1/0
In this course the student utilizes the Java programming language to create both Internet applets and applications. Prerequisite(s): None

CPTR2252 Microcomputer Systems Project 3 1/2/0
Students utilize the content of previous data communication and microcomputer courses to design and implement a microcomputer/networking solution to a business need. Hardware and software projects may include designing, installing, upgrading, or expanding. Students may work on individual projects. Prerequisite(s): CPTR1148, CPTR2272

CPTR2256 TCP/IP 3 2/1/0
This course covers the implementation, administration, and troubleshooting information systems that incorporate TCP/IP. Prerequisite(s): CPTR1142

CPTR2262 IPv6 3 2/1/0
The Internet Engineering Task Force (IETF) developed Internet Protocol version 6 to replace Internet Protocol version 4. Internet Protocol version 6 incorporates many lessons learned from running a world wide expanding network. This class teaches how to manage systems using Internet Protocol version 6. Prerequisite(s): CPTR2200

CPTR2264 Designing Directory Services 3 2/1/0
Student is introduced to real world examples to reinforce key concepts for designing, configuring, administering and troubleshooting directory and network services available within a Server/Client based network infrastructure. Students

will analyze and assess business organizations to design the physical and logical components associated with directory services and a network infrastructure. Students determine required network services and server placement for services such as Remote Access, DNS, and LDAP compliant Directory Services components. Prerequisite(s): CPTR2272

CPTR2270 Web Engineering II 3 2/1/0
This course covers advanced programming of professional Web pages for the business environment. Topics will include Web-interactivity, security, Web site management, Internet servers, and e-commerce. Focus will be given to server-side programming languages such as PHP and ASP.Net, and Web to database connectivity. Prerequisite(s): CPTR1170

CPTR2272 Network Operating Systems 3 2/1/0
This course teaches functions of a network operating system so the student can effectively maintain and manage a network. The student learns how to establish and oversee the operations of a network, create logins, design and establish directory structures, and implement security. Prerequisite(s): CPTR1138 or CPTR1148 or CSEC1104

CPTR2274 Network Administration 3 2/1/0
This course teaches functions of the Novell network operating system so the student can effectively maintain and manage a network. The student learns how to establish and oversee the operations of a network, create users, design and establish directory structures, and implement security. Students also learn how to create login scripts, select network applications, and follow archiving procedures. Prerequisite(s): CPTR1108

CPTR2278 Microcomputer Graphics 3 1/2/0
This course covers the creation of business graphics with microcomputer software packages. Types of charts covered include text, pie, bar/line, freeform, and organization. Students learn to create standard applications such as maps, posters, brochures, and slideshows. Other considerations such as networking and printing are covered. Prerequisite(s): CPTR1148, ADMS1112, ADMS1152

CPTR2280 WAN Administration 3 2/1/0
This course deals with network communication problems on a very large scale. Students learn how to design, configure and manage systems designed for WANs. Prerequisite(s): CPTR2208

CPTR2282 E-mail Administration 3 2/1/0
The E-mail Administration course provides students with the skill sets to design, install, troubleshoot, secure and perform daily administration for a directory services integrated e-mail system. Students learn how to use cryptographic authentication techniques along with learning how to analyze e-mail server system performance and support e-mail client packages. Prerequisite(s): CPTR2272

CPTR2294 Internship 3 0/0/3
This course provides students with the opportunity to apply knowledge and skill sets learned in concurrent coursework. Students will perform activities in an employer supervised industry setting that are consistent with program outcomes. Students will also utilize interpersonal communication skills within the context of applying knowledge and skill sets. Prerequisite(s): CPTR1138

CPTR2296 Topics in Computers 3 2/1/0
The goal of this course is to introduce students to a computer topic chosen from a wide range of classic and state-of-the-art research, techniques, systems, and technologies in the field of computer programming or networking. Topics will vary each semester. This course is intended to be taken in a

student's final semester. Prerequisite(s): 32 earned credits in computer field

CRJU1101 Intro to Criminal Justice 3 3/0/0
This course serves as an introduction to the American criminal justice system including police, courts, and correctional systems. Minnesota POST objectives are also covered in this course. Prerequisite(s): None

CRJU1102 Policing & Practices 3 3/0/0
An introduction into the development of American policing and an understanding of the modern roles and functions of police in a democratic society. These roles and functions include responsibilities in peacekeeping, law enforcement, community policing, and customer service. Prerequisite(s): None

CRJU1104 Juvenile Justice & Delinq 3 3/0/0
This course covers the study of juvenile delinquency, the theories of causation, and the methods of corrections. It also examines the juvenile court and correctional systems. Minnesota Juvenile Law will be explored as it relates to the POST objectives. Prerequisite(s): None

CRJU1106 Corrections/Probation 3 3/0/0
This course examines the historical and contemporary correctional theories and programs with emphasis on the current organizational structure. Probation, parole, and correctional alternatives are also explored. Prerequisite(s): None

CRJU1107 Criminal Law/Proc for Corrections 3 3/0/0
This course will focus on aspects of the Minnesota and North Dakota criminal code, familiarization with Minnesota and North Dakota civil law impacting jails and sheriff's departments, constitutional law, especially focusing on eighth amendment rights, and MN/ND rules of procedures regarding correctional facilities. Prerequisite(s): None

CRJU1108 Physical Control Tactics/Corrections 3 3/0/0
This course will deal with use of force issues relating to correctional officers, defensive tactics and control techniques, proper restraint techniques and less than lethal weapons training. Lecture and practical application are included in the course. Prerequisite(s): None

CRJU1109 Law Enforce/Behave Sci 3 3/0/0
This course is devoted primarily to Minnesota POST objectives including, but not limited to the following areas: cultural awareness, stress management, domestic abuse, crisis intervention, communication, bias motivated crimes, victims, ethics and human behavior. Prerequisite(s): None

CRJU1117 Special Topics CJ 3 3/0/0
This course looks at a variety of contemporary issues that are considered to be "hot spots" in law enforcement and criminal justice such as police pursuits, deadly force, gangs, terrorism, etc. Prerequisite(s): None

CRJU2201 Criminal Law 3 3/0/0
This is a course in substantive law, including the elements of major crimes and possible legal defenses. This course also familiarizes students with the Minnesota criminal statutes Focusing on Minnesota POST objectives. Prerequisite(s): CRJU1101

CRJU2202 Criminal Procedures 3 3/0/0
This course covers the study of constitutional law and criminal procedures utilizing the options of the United States Supreme Court and the Minnesota rules of criminal

procedure. Emphasis is placed on the Constitutional guidelines for law enforcement, rules of arrest, search and seizure, and the Minnesota Rules of Criminal Procedure. Prerequisite(s): Enrollment in the AS Program or approval of the CJ Coordinator

CRJU2206 Police Report Writing 3 3/0/0
This course provides the technical understanding and practical application in basic police report writing, field note taking, and standardized report forms commonly used by law enforcement. Emphasis is placed on developing a clear, concise style in expressing factual, relevant information in an acceptable format relevant to criminal case procedures. Prerequisite(s): ENGL1101 or GSCO1102

CRJU2208 Criminal Investigations 4 4/0/0
This course covers the methodology of criminal investigations from the preliminary investigation to the court proceedings. It also covers evidence recognition, collection and preservation. Police reporting relevant to investigations is also covered. Prerequisite(s): Enrollment in the AS Program or approval of the CJ Coordinator

CRJU2210 Intro to Criminalistics 3 3/0/0
This is an introduction to the principles involved in the application of scientific and technical methods used in the discovery, review, and evaluation of physical evidence. The interpretation of evidence and the linkage to suspects. Prerequisite(s): Enrollment in the AS Program or approval of the CJ Coordinator

CRJU2235 Criminal Justice Internship 1-4
This is a practical learning experience in criminal justice in the area of the student's interest. This course is usually scheduled after the student has completed one full year of course work. Prerequisite(s): None

CRMP2202 CR Structure & Mgmt 3 3/0/0
This course will focus on the structure of a cancer registry. Emphasis will be on the organizational requirements of an approved cancer program as outlined by the Commission on Cancer of the American College of Surgeons and other regulatory requirements. Prerequisite(s): HLTH2002, HLTH2208

CRMP2203 Cancer Reg Operations 3 3/0/0
This course will focus on the daily operations of a registry including case finding, statistics and software usage. Prerequisite(s): CRMP2202

CRMP2204 Oncology Coding & Stag 3 3/0/0
This course will focus on the basic concepts of the coding and staging of malignant neoplasms. Prerequisite(s): HLTH2002, CRMP2203

CRMP2205 Abstracting Methods 2 2/0/0
This course will focus on the process of selecting and transferring patient health information to the registry abstract records. Prerequisite(s): CRMP2204

CRMP2206 Follow-up Methods 2 2/0/0
This course will focus on the process of tracking patients during and after cancer treatment. Prerequisite(s): CRMP2205

CRMP2208 Clinical Experience 4 0/0/4
To complete the program, the student will complete an on-site directed practice experience under the supervision of a Certified Tumor Registrar. Prerequisite(s): CRMP2202 or CRMP2206, HLTH1106, HLTH2208, GSMS1104

CSCI1101 Computer Essentials 1 1/0/0

This course is intended for those with no or minimal computer skills. Basic computer terminology, including hardware and software; basic microcomputer operating systems, Internet, and e-mail operations will be covered. Introductory word processing skills will be taught using one of the industries common word processing packages. No credit given if taken after another computer course. Prerequisite(s): None

CSCI1120 Computer Programming Basic 3
3/0/0

Programming and problem-solving techniques using the BASIC (Visual) programming language in a structured format. Topics will include loops, subroutines, and files. Prerequisite(s): MATH0090

CSCI1121 Computer Science I 4 4/0/0

An introduction to Computer Science, with problem solving, algorithm design, and structured programming using a modern programming language. Emphasis on learning how to design, code, debug, and document programs using techniques of good programming style. Includes laboratory. This course is intended primarily as a first course for computer science majors and/or minors. Prerequisite(s): MATH1020

CSCI1122 Computer Science II 4 4/0/0

A continuation of CSCI 1121. Advanced concepts of programming including an introduction to data structures, analysis of algorithms, program robustness, and program correctness. Prerequisite(s): CSCI1121 and MATH1114, or a minimum score of 14 on mathematics placement test

CSCI1155 Cpt Utilization/Business & Society 3
3/0/0

Course is designed to provide a technical background for understanding the use of computers in the real world. The course will cover both hardware and software and their applications in the world today. One of the highest rated commercially available applications software packages will be used to gain skills necessary for word processing, electronic spreadsheets, databases, and presentations. Students will use the Internet and electronic mail on a regular basis. Prerequisite(s): Basic typing and limited computer knowledge

CSCI1205 Network Fundamentals 4 4/0/0

Computer Science 1205 is the first course in a four-course, HTML-based curriculum that focus on TCP/IP Ethernet routed and switched networks. Through the four-course program, students can learn the information needed to prepare them for the Cisco Certified Networking Associate (CCNA) exam (an industry certification that will position students for immediate job openings or prepare them for computer engineering and science-focused college studies). Prerequisite(s): None

CSCI1206 Router Theory/Technology 3
3/0/0

Computer Science 1206 is the second course in a four-course, HTML-based curriculum that focuses on TCP/IP Ethernet routed and switched networks. Through the four-course program, students can learn the information needed to prepare them for the Cisco Certified Networking Associate (CCNA) exam (an industry certification that will position students for immediate job openings or prepare them for computer engineering and science-focused college studies). Prerequisite(s): CSCI1205

CSCI1207 Adv Routing & Switching3 3/0/0

Computer Science 1207 is the third course in a four-course, HTML-based curriculum that focuses on the TCP/IP Ethernet routed and switched networks. Through the four-course program, students can learn the information needed to prepare them for CISCO Certified Networking Associate

(CCNA) exam (an industry certification that will position students for immediate job openings or prepare them for computer engineering and science-focused college studies). Prerequisite(s): CSCI1206

CSCI1208 Adv Proj Based Learning3 3/0/0

Computer Science 1208 is the fourth course in a four course, HTML-based curriculum that focuses on TCP/IP Ethernet routed and switched networks. Through the four course program, students can learn the information needed to prepare them for the CISCO Certified Networking Associate (CCNA) exam (an industry certification that will position students for immediate job openings or prepare them for computer engineering and science-focused college studies). Prerequisite(s): CSCI1207

CSCI2010 JAVA Programming 4 4/0/0

Programming and problem solving using the Java programming language. This course includes substantial programming projects and is designed for the student with programming experience. Topics include language syntax, loops, conditional statements, object-oriented concepts, input/output, GUIs and threads. Prerequisite(s): MATH1010 plus CSCI1120 or CSCI1121 or previous programming experience

CSEC1102 Careers in Information Systems 1
1/0/0

This course is for students who have chosen or who are interested in computer related careers. Students will research careers in Information Technology including the job duties, the various job titles, the salary range, the employment and advancement prospects, and the skills and training required. Students in this course will complete individual college and career planning and goal setting plans. Prerequisite(s): None

CSEC1104 PC Hardware and Software 4
2/2/0

This course covers the configuration and operation of microcomputer systems including hardware components and operating systems software. Topics include hardware and software compatibility, system architecture, troubleshooting, diagnosis, and basic repair, replacement and upgrades of microcomputer hardware and software components. Prerequisite(s): None

CSEC1110 Fundamentals of IT Security 3
2/1/0

This course introduces the basics of network security. The student will be introduced to network vulnerabilities and threats and how to safeguard computer networks from those vulnerabilities and threats. This course will expose the student to network security planning, network security technology, network security organization and legal and ethical issues associated with network security. Prerequisite(s): None

CSEC2202 Introduction to Wireless Networking 3
2/1/0

This is an introductory course that will focus on the design, planning, implementation, operation and troubleshooting of wireless networks. It covers a comprehensive overview of technologies, security, and design best practices with particular emphasis on hands-on skills. Prerequisite(s): None

CSEC2204 Managing Directory Services 3
2/1/0

This course is designed to further the students understanding of directory services. Directory services provide a central repository for the information available on the network. The student will learn that the first function of the directory is to provide information about objects in the directory including

users and resources such as file shares, printers, or e-mail boxes. In addition, the student will learn that the information contained in the directory is crucial for the correct and secure operation of the network. Prerequisite(s): CPTR2272

CSEC2210 Security Breaches & Countermeasures 3 2/1/0

This course introduces the student to the various methodologies for attacking a network. The student will be introduced to concepts, principles and techniques, supplemented by hands-on exercises for attacking and disabling a network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools. Prerequisite(s): CSEC1110

CSEC2212 Web Security 3 2/1/0

This course will give students hands on training in securing Web communications and Web sites. Students will learn the common vulnerabilities of Web sites, implementing e-business security policies, identifying security threats, developing countermeasures and managing the deployment of security solutions. Prerequisite(s): CPTR 2272; and CPTR 2224 or INTD 1104

CSEC2216 Advanced Routing 4 2/2/0

This course covers advanced IP addressing techniques, Ethernet segmentation and the use of VLAN technology, intermediate routing protocols and WAN technology and terminology. Topics covered are: switching; virtual lans; network address translation; dynamic host control protocol; variable length subnet masking, the OSPF, EIGRP routing protocols; and various WAN connection solutions. Prerequisite(s): CPTR1118

CSEC2218 Disaster Recovery 2 1/1/0

This course includes preparation of a disaster recovery plan, implementation of the plan, and recovering from a disaster. This course takes an enterprise-wide approach to developing a disaster recovery plan. Students will learn how to restore a network in the event of a disaster. Prerequisite(s): CSEC1110

CSEC2222 Network Security Design3 2/1/0

This course will give the student the opportunity to conduct a vulnerability analysis upon a network in order to practice or refine the attack methodologies with the hacker tools and techniques to which the student was exposed during the various program courses. The student must demonstrate the ability to design, plan and execute a vulnerability analysis against an organization network. The student must prepare a written report and mode of the security design, attack methodology, tools and techniques. Prerequisite(s): CSEC2210

CSEC2226 Managing Messaging Services 3 2/1/0

This course is an introduction to messaging and collaboration services for systems administrators. This course will provide a strong foundation for implementing and administering corporate messaging systems. It will also cover methods for filtering and protecting the e-mail server including disaster recovery. Prerequisite(s): None

CSEC2228 Network Defense 3 2/1/0

This course introduces the student to the various methodologies for defending the network. The student will be introduced to the concepts, principles, type and topologies of firewalls to include packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection. Prerequisite(s): CSEC2210

CSEC2230 Computer Forensics 3 2/1/0

This course provides you with a comprehensive understanding of computer forensics and investigation tools and techniques. All major personal computer operating system architectures and disk structures will be discussed, as well as what computer forensic hardware and software tools are available. You will also learn the importance of digital evidence controls and how to process crime and incident scenes. You will learn the details of data acquisition, computer forensic analysis, e-mail investigations, image file recovery, and investigative report writing. The course provides hands-on assignments that teach you about theory as well as the practical application of computer forensic investigation. Prerequisite(s): None

CTEC1102 Technology & Organization 3 2/1/0

This course will focus on technology as it relates to management and the organization and the importance of integrating these three elements help the organization achieve its business goals. Students will study the role of technology in transforming business and management and the strategic role that information systems play in today's marketplace. Prerequisite(s): None

CTEC1104 Technical Research 3 2/1/0

Students will research technical software applications and hardware products using trade journals, Internet resources, product documentation, and contacts with vendors and product developers. The focus will be on using research to solve customer difficulties with hardware, software, and the integrated systems. Prerequisite(s): GSCI1108

CTEC1106 Helpdesk Operations 3 2/1/0

Students will study customer support procedures and organization as it applies to help desk operations, and will apply this knowledge to providing phone and direct support to end-users as part of the College's Help Desk. Students will participate in classroom discussions on their experience and will document problems and solutions. Students will demonstrate effective communication and customer service skills. Prerequisite(s): CPTR1104, CTEC1102

CTEC2204 Adv Technical Support 3 2/1/0

This course will emphasize advanced technical support topics, such as project management, product development, software evaluation and selection, technical writing, and end-user training. Students will apply their technical knowledge and experience to actual case studies. Prerequisite(s): CTEC1106

CTEC2240 Technical Support Internship 3 0/0/3

This is a hands on course in a computer industry setting. The student will apply skills, knowledge, and behaviors acquired in prior courses to the computer business situation. The student will provide phone and/or direct support to computer customers and gain a working knowledge of the technical analyst position. Prerequisite(s): CTEC2204

CULN1102 Intro to Foodservice Prep4 4/0/0

This course covers terminology, equipment, basic food products and cooking techniques, kitchen safety and sanitation certification for the food service industry. Prerequisite(s): None

CULN1104 Soups, Stocks & Sauces2 2/0/0

This course covers the introduction and application of many soups, stocks, and sauces that are the basis for the preparation of many food items that appear on restaurant menus. Prerequisite(s): None

CULN1106 Salad & Baking Lab 6 0/6/0

This course covers the food production in the salad and baking areas in food service with a practical hands-on

application required for anyone to work in the pastry/baking area as well as the pantry/salad area in a commercial kitchen. Prerequisite(s): Pre/Corequisite: CULN1102

CULN1112 Poultry & Seafood 3 3/0/0
This course covers the introduction to poultry, fish and seafood from basic classifications, preparation methods, handling techniques, and accompaniments. Prerequisite(s): None

CULN1118 Fry & Broiler Lab 5 0/5/0
This course covers the skills required of a cook working various positions in a commercial food service production line, focusing on the equipment and techniques used. Food product information is also included in this course. Prerequisite(s): Pre/Corequisite: CULN1102

CULN1120 Kitchen Math & Formulas1 1/0/0
This course is an assessment and review of math skills necessary for food-service workers. Functions with whole numbers, fractions, decimals, and percentages are covered and applied to food-service calculations and formulas. Prerequisite(s): None

CULN1122 Sanitation Certification 1 1/0/0
This course covers the basics of safe food handling procedures, safe food storage, cleaning and sanitizing, and purchasing and receiving safe food. This course follows the FDA Model Food Code and students will test for the Servsafe Certification exam at the conclusion of the class. Prerequisite(s): None

CULN1124 Menu Planning/Merchandising 2 2/0/0
This course covers the introduction to menus, including the design, copywriting, and layout. Also the application of food service marketing principles on which the success or failure of the modern restaurant depends. Prerequisite(s): None

CULN2202 Meats 2 2/0/0
This course covers the identification of meat cuts, quality standards, and yield standards of meats as used in the food service industry. Prerequisite(s): None

CULN2204 Breakfast Preparation Lab 5 0/5/0
This course covers the hands-on application of the skills required by a breakfast cook. Ranging from basic egg cookery to breakfast buffet set-up and service and the preparation of food products normal to the typical breakfast menu of a restaurant. Prerequisite(s): Pre/Corequisite: CULN1102

CULN2206 Buffet & Garde Manger Lab 3 0/3/0
This course covers the food art portion of entry-level positions in food service. It also provides an exposure to buffet service and some of the classical forms of food presentation and display. Prerequisite(s): Pre/Corequisite: CULN1102

CULN2214 Quantity Food Prep & Butcher Lab6 0/6/0
This course covers the hands-on preparation of a wide variety of food as routinely done by the dinner cook or prep cook in many food service operations. It also covers the hands-on application of meat cutting and processing, as well as other functions performed in the butcher shop area of the food service operation. Prerequisite(s): Pre/Corequisites: CULN1102, CULN1104

CULN2222 Prod & Planning Supervision Lab6 2/4/0
This course provides the practical application of the principles of supervision that are part of a chef's daily routine. Application of learned skills in the areas of menu writing, purchasing, storeroom operation and merchandising. Prerequisite(s): Pre/Corequisites: CULN1102, CULN1104

CULN2228 Food Cost Control 3 3/0/0
This course covers the cost structure of food service operations and provides methods and applications to monitor and control food and labor costs. Prerequisite(s): Pre/Corequisite: CULN1102

CULN2234 Operation/Legal Aspects Hospitality Industry 2 2/0/0
This course covers operational and legal aspects relevant to the hospitality industry. Topics include: labor relations and staff selection, food and liquor liability, patron's civil rights, federal regulations, security, franchising, and contracts. Prerequisite(s): None

CULN2236 Ethnic Foods 2 1/1/0
This course covers the history, origin, and preparation methods of food products of various countries and ethnic groups. Prerequisite(s): Pre/Corequisite: CULN1102

CULN2238 Confectionery Art 2 1/1/0
This course covers the skills and techniques required to decorate and present cakes, pastries, and desserts. Prerequisite(s): Pre/Corequisite: CULN1102, CULN1106

CULN2240 Internship 2 0/0/2
This course provides the student with an internship experience to allow them to apply what has been learned in the classroom and practiced in the lab. The internship will take place in a commercial food service establishment under the supervision of the employer/designee. Prerequisite(s): Pre/Corequisites: CULN1106, CULN1118

CVNP2210 Voice, Video & Data Convergence4 2/2/0
This course covers the theory, configuration and analysis of voice, video and data converged networks. Topics covered in this course include the medium choices of convergence, types of protocols that are commonly used, network engineering and troubleshooting converged networks. Prerequisite(s): CPTR1108 or TECH1106

CVNP2212 VoIP / IP Telephony 4 2/2/0
This courses covers the theory, configuration and monitoring of Voice communications systems and voice signals transported over Internet Protocol. Topics covered in this course include components of a business communications systems, voicemail systems, call features, call control protocols, codec algorithms, and Quality of Service techniques. Installation and configuration for Business Communications Systems, Media Gateways, IP Telephony Gatekeepers, Soft switch and soft phones. Prerequisite(s): CPTR1108 or TECH1106

CVNP2220 Video Over Internet Protocol 4 2/2/0
In this course the student will learn how to encode and decode video IP signals to be transported over converged networks and connect equipment together to perform associated functions. The student will program and provision routers and set-top boxes to required specifications and protocols within a broadband high-speed internet connection. The student will monitor call-control signalling and network traffic, analyze packet through-put, and troubleshoot entire network for quality and reliability. Video conferencing, IPTV, HDTV, 3G cell phone video, content protection, and other new technology formats will be explored and researched to

give the student a better understanding of video over internet protocol technologies. Prerequisite(s): Pre/Corequisite: CPTR1108 or TECH1106

CVNP2222 Voice Video Over IP Systems Project 3
1/2/0

The Voice, Video over Internet Protocol course is a capstone course for the Voice Video over Internet Protocol Certificate. Students will work on projects to assess their ability to design and configure a converged network, converge applications onto the network and analyze, test and troubleshoot the applications running over an IP network. The student will demonstrate professional communications skills presenting their design and implementation of the project, and performing training on the system. Prerequisite(s): CVNP2210 or CVNP2212

DCNH1116 CNH SOE I 3 0/0/3

Students will apply skill sets previously learned specific to Case New Holland equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DCNH1118 CNH SOE II 7 0/0/7

Students will apply skill sets previously learned specific to Case New Holland equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DCNH2210 Mobile Hydraulics 4 1/3/0

This course covers the hydraulic components specific to CNH farm and heavy equipment. This will include hydrostatic transmission, electric over hydraulic control valves, electronic control components. It will also include troubleshooting of live units with proper testing equipment used in up-to-date service centers. Prerequisite(s): DSET1112

DCNH2218 CNH SOE III 3 0/0/3

Students will apply skill sets previously learned specific to Case New Holland equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DCNH2230 Adv Engines & Fuel Systems I 3
1/2/0

This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of diesel engine intake, exhaust and fuel systems used in CNH equipment. Prerequisite(s): DSET1132, DSET1134

DCNH2232 Adv Engines & Fuel Systems II 3
1/2/0

This course includes repair and overhaul procedures for engines used in CNH equipment. Prerequisite(s): DCNH2230

DCNH2234 Adv Engines & Fuel Systems III 3
1/2/0

This course includes the operation, troubleshooting, repairing and programming of electronically controlled diesel engines used in CNH equipment. The students will perform critical tune-up and adjustment procedures, including OEM, and computer based troubleshooting procedures. Prerequisite(s): DCNH2232

DCNH2238 Transmissions & Drive Systems 4
1/3/0

This course covers procedures to test, troubleshoot and rebuild power shift and other specialized transmissions used on agricultural equipment and industrial powered equipment as it relates to CNH equipment. This course also includes final drives and related components including removal, repair, installation, and adjustment of major units and components. Prerequisite(s): DSET1110

DEER1116 John Deere SOE I 3 0/0/3

Students will apply skill sets previously learned specific John Deere equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DEER1118 John Deere SOE II 7 0/0/7

Students will apply skill sets previously learned specific to John Deere equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DEER2210 Mobile Hydraulics 4 1/3/0

This course covers the hydraulic components specific to John Deere heavy equipment. This will include hydrostatic transmission, electric over hydraulic control valves, electronic control components. It will also include troubleshooting of live units with proper testing equipment used in up-to-date service centers. Prerequisite(s): DSET1112

DEER2218 John Deere SOE III 3 0/0/3

Students will apply skill sets previously learned specific John Deere equipment and will also be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DEER2230 Adv Engines & Fuel Systems I 3
1/2/0

This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of diesel engine intake, exhaust and fuel systems used in John Deere industrial equipment. Prerequisite(s): DSET1132, DSET1134

DEER2232 Adv Engines & Fuel Systems II 3
1/2/0

This course includes repair and overhaul procedures for engines used in John Deere industrial equipment. Prerequisite(s): DEER2230

DEER2234 Adv Engines & Fuel Systems III 3
1/2/0

This course includes the operation, troubleshooting, repairing and programming of electronically controlled diesel engines used in John Deere industrial equipment. The students will perform critical tune-up and adjustment procedures, including OEM, and computer based troubleshooting procedures. Prerequisite(s): DEER2232

DEER2238 Transmissions & Drive Systems 4
1/3/0

This course covers procedures to test, troubleshoot and rebuild power shift and other specialized transmissions used on construction equipment as it relates to John Deere. This course also includes final drives and related components including removal, repair, installation, and adjustment of major units and components. Prerequisite(s): DSET1110

DENT1100 Biomaterials 3 2/1/0

This is a foundation course that provides in-depth instruction and practice in identifying the materials, their purposes and properties as they are used during chairside and laboratory procedures. Material manipulation is a critical requirement of the lab component of this course. Laboratory safety measures and infection control are emphasized. Prerequisite(s): Acceptance into the Dental Assisting or Dental Hygiene program

DENT1102 Dental Anatomy Lecture 2 2/0/0

The lecture portion of the course introduces the student to basic terminology for understanding the structures that form the foundation for tooth function, normal anatomy of the oral cavity, and tooth and root morphology. Special topics include survey of dental anomalies, cavity classifications and forensic dentistry. Prerequisite(s): None

DENT1106 Dental Radiology Lecture3 3/0/0

This course includes an overview of the history of x-ray development, a review of basic mathematics and radiation physics as they apply to the x-ray production. Radiographic film and digital image quality are explored. Explanation of darkroom chemistry, radiation asepsis and safety are covered. Interpretation of normal anatomy, and dental film and digital image analysis, radiographic interpretation and evaluation, and quality assurance issues. Prerequisite(s): None

DENT1108 Dental Radiology Lab 2 0/2/0

This course puts into practice knowledge gained from DENT1106 Dental Radiology Lecture course. Dental Assisting students expose full mouth series (film based and digital), extra-oral and specialized radiographs on adult and child patients or mannequins. Emphasis is placed on protection against x-ray hazards and record keeping. Students will also process, mount, and evaluate radiographs for diagnostic value. In addition, they will use radiographs to explain dental health and treatment plans to patients. Lab sessions will allow students to develop radiographic skills, and clinic sessions create an opportunity for students to enhance their efficiency in radiographic technique. Prerequisite(s): None

DENT1114 Dental Radiology 4 2/2/0

The lecture component of this course includes an overview of the history of x-ray development, a review of basic mathematics and radiation physics as they apply to x-ray production and radiographic quality, darkroom chemistry, radiation hygiene and safety, interpretation of normal anatomy and dental film analysis, radiographic interpretation and evaluation, and quality assurance issues. Lab sessions will allow the student to develop radiographic skills, and clinic sessions create an opportunity for students to enhance their efficiency in radiographic technique. Prerequisite(s): Acceptance into the Dental Assisting or Dental Hygiene program

DENT1122 Dental Ethics & Jurisprudence 1 1/0/0

This course focuses on the ethical and legal implications of providing dental, dental assisting, and dental hygiene care. The practice acts for Minnesota and North Dakota will also be studied. Prerequisite(s): Acceptance into either Dental Assisting or Dental Hygiene program.

DNAS1102 Clinical Assisting I 6 2/4/0

This course includes an orientation to the history of dentistry, educational requirements, credentialing opportunities and professional associations for dental and allied dental careers. The student is provided with instruction in the use of dental equipment, instruments and supplies; principles of four-handed dentistry; concepts of infection control and instrument recirculation; management of medical and dental emergencies; and procedures related to oral diagnosis,

preventive dentistry, and restorative dentistry
Prerequisite(s): Pre/Corequisite: DENT1100

DNAS1104 Clinical Assisting II 3 1/2/0

Dental Assisting students apply skills developed in Clinical Assisting I in a clinical setting. This course prepares the student to adapt chairside skills to assisting with dental specialties as they are performed in the general practice. Students will apply skills developed in Dental Anatomy, Biomaterials, Biodental Science and Dental Practice Management as they apply to the practice of dental assisting. Prerequisite(s): DNAS1102

DNAS1106 Biodental Science 3 3/0/0

This course provides an introduction to anatomy and physiology, an introduction to dental histology and embryology, and an overview of head and neck anatomy. This course is also designed to give the student basic concepts of microbiology and disease transmission and a survey of oral pathology and diseases. Prerequisite(s): None

DNAS1110 Clinical Assisting Specialties 4 2/2/0

This course introduces the student to the dental specialties of Pediatric dentistry, Periodontics, Oral and Maxillofacial Surgery, Endodontics, Prosthodontics (fixed and removable), Orthodontics and also special needs patients. This course will provide the student with an introduction to the lab and clinical procedures with each of the specialties listed. Prerequisite(s): DNAS1102, DENT1100

DNAS1112 Clinical Assisting I 4 2/2/0

This course includes an orientation to the history of dentistry, educational requirements, credentialing opportunities and professional associations for dental and allied dental careers. The student is provided with instruction in the use of dental equipment, instruments and supplies; principles of four-handed dentistry; concepts of infection control and instrument recirculation; management of medical and dental emergencies; and procedures related to oral diagnosis, preventive dentistry, and restorative dentistry. Prerequisite(s): Corequisite: DENT1100

DNAS1114 Dental Prac Management2 2/0/0

This course provides the student with instruction in the principles and applications that are related to the management of a dental office. Emphasis is placed on managing patient records through computer generated charting, financial records, third party payments, appointment scheduling, inventory and recall systems. Prerequisite(s): None

DNAS1116 Clinical Assisting Specialties 6 2/4/0

This course introduces the student to the dental specialties of Pediatric dentistry, Periodontics, Oral and Maxillofacial Surgery, Endodontics, Prosthodontics (fixed and removable), Orthodontics and also special needs patients. This course will provide the student with an introduction to the lab and clinical procedures with each of the specialties listed, and an off campus/extramural clinical experience prior to the Clinical Affiliation. Prerequisite(s): DENT1100, DNAS1112

DNAS1118 Advanced Functions 7 2/5/0

This course is designed to provide the student with instruction and practice to perform the clinical competency in the following intra-oral functions approved by the Minnesota Board of Dentistry: taking radiographic exposures, performing mechanical polishing, taking preliminary impressions and bite registrations, applying topical fluoride, placing and removing periodontal dressing, removing excess cement, monitoring

nitrous oxide-induced patients, induction of nitrous oxide/oxygen sedation, excess bond removal from orthodontic appliances with rotary instruments, and applying pit and fissure sealants. In addition the following intra-oral functions are taught and practiced to laboratory competency: applying non-fluoride topical medications, removing sutures, preliminary adaptation of temporary (provisional) crowns, performing selected orthodontic functions, applying bleaching agents, and performing approved endodontic procedures. Prerequisite: DNAS1xxx (Clinical Assisting I), DENT1114 and Current CPR Certification. Prerequisite(s): DNAS1102, DENT1114, and current CPR certification

DNAS1130 Clinical Affiliation 6 0/0/6

This is a faculty-supervised course at extramural sites with dentists and dental auxiliaries providing ancillary supervision. The student will be provided with clinical experiences by affiliations in general dentistry and/or specialized practices. Emphasis is on professionalism in performing general chairside and advanced intraoral procedures. Prerequisite(s): Student must have completed or be registered for all required courses in the major and have Dental Assisting Director's approval

DNAS1134 Credentialing Exam Prep2 2/0/0

This course will provide information and guidance to prepare the individual for taking the dental assisting credentialing examinations. The topics included are those that are tested by the national certification and state board registration exams. This course is appropriate for those individuals who are in need of becoming recertified or for those seeking initial credentialing. Prerequisite(s): Current or returning dental assisting student or must meet the occupational experience for challenging the certification examination.

DNHY1104 Dental Anatomy Lab 1 0/1/0

Lab course which provides opportunities for the student to work with tooth identification and charting systems, intraoral imagery, and occlusion assessment. Special topics include survey of dental anomalies, cavity classifications and forensic dentistry. Prerequisite(s): Acceptance into the Dental Hygiene program

DNHY1106 Head and Neck Anatomy2 2/0/0

This course is designed to cover the osteology of the skull, the muscles, nerves, and blood supply of the head and neck. The salivary glands, TMJ, and deglutition are also covered. Prerequisite(s): Acceptance into the Dental Hygiene program

DNHY1108 Oral Histology & Embryology 2 2/0/0

This course covers the study of the microscopic anatomy of the oral tissues and the embryonic development of the face and oral cavity with emphasis on the masticatory system. Prerequisite(s): DNHY1106, DNHY1128

DNHY1110 Dent Hygiene Prin I 2 2/0/0

This course introduces the student to dental hygiene with emphasis on theory of preventive dentistry, OSHA standards, disinfectants / sterilants, formation of plaque and calculus, patient assessment, and an introduction to the caries process and periodontal assessment. Prerequisite(s): Acceptance into the Dental Hygiene program

DNHY1112 Dent Hygiene Prac I 3 0/3/0

This course provides an introduction to dental hygiene with emphasis on the practice of preventive dentistry, care and use of equipment, sterilization techniques, and an introduction to instrumentation. Prerequisite(s): Acceptance into the Dental Hygiene program; Corequisite: DNHY1110

DNHY1118 Oral Pathology 2 2/0/0

This course covers the study of general processes as well as oral disease processes. Special emphasis is placed on clinical and radiographic recognition of pathology of the oral cavity. Prerequisite(s): DNHY1106, DNHY1110

DNHY1119 Dent Hygiene Prin II 4 4/0/0

This course is a continuation of DNHY 1110 with continuing information on the fundamentals of dental hygiene, record keeping, and basic instruction and care of special needs patients. Prerequisite(s): DNHY1110

DNHY1123 Dent Hygiene Prac II 5 0/5/0

This course is a continuation of DNHY1112 and introduces the student to further instrumentation theory, instrumentation techniques and procedures, clinical protocol, evaluation of medical/dental histories, and radiographic survey as prescribed. This course provides opportunity for the student to develop competence in clinical procedures. Prerequisite(s): DNHY1112; Corequisite: DNHY1116

DNHY1124 Pain Control Lab 2 0/2/0

This course provides the dental hygiene student with the knowledge and skills necessary to administer local anesthesia and other methods of pain control during dental procedures without inducing detrimental physiological side effects. Prerequisite(s): DNHY1106, DNHY1136

DNHY1128 Dental Anatomy 3 2/1/0

The lecture portion of the course introduces the student to basic terminology for understanding the structures that form the foundation for tooth function, normal anatomy of the oral cavity, and tooth and root morphology. Lab sessions will provide opportunities for the student to work with tooth identification and charting systems, intraoral imagery, and occlusion assessment. Special topics include survey of dental anomalies, cavity classifications, and forensic dentistry. Prerequisite(s): Acceptance into the Dental Hygiene program

DNHY1130 Dent Hygiene Prin III 1 1/0/0

This course is a continuation of DNHY1116 with emphasis on expanded duties. The course includes the study of rubber dam placement, sealants, orthodontic patients, debonding, and intraoral photography. Prerequisite(s): DNHY1123, Corequisite: DNHY1132

DNHY1132 Dent Hygiene Prac III 1 0/1/0

This course is a continuation of DNHY1123 with emphasis on treatment of lab competencies during this summer session. Prerequisite(s): DNHY1123, Corequisite: DNHY1130

DNHY1136 Dental Pharmacology 2 2/0/0

This course introduces dental hygiene students to basic drug categories, pharmacological pain control principles, and various anesthesia techniques, with special emphasis on a succinct accounting of drugs as they relate to dentistry. Prerequisite(s): Acceptance into the Dental Hygiene program

DNHY2210 Dent Hygiene Prin IV 2 2/0/0

This course is a continuation of DNHY1130 and introduces the student to dietary counseling, with special emphasis on advanced dental hygiene techniques including periodontal assessment, airbrasive polishing, ultrasonic and sonic instrumentation, root planing, gingival curettage, periodontal dressing, and suture removal. Prerequisite(s): DNHY1130, Corequisite: DNHY2213

DNHY2213 Dent Hygiene Prac IV 6 0/6/0

This course is a continuation of DNHY1132 with emphasis on the treatment of moderate to advanced periodontal disease,

the development of speed, and an introduction to several advanced dental hygiene techniques. Prerequisite(s): DNHY1130, DNHY1132

DNHY2219 Periodontology 2 2/0/0
This course covers the pathogenesis, diagnosis, and treatment of periodontal disease. Emphasis will include the progression of periodontal disease, diagnostic methods, treatment modalities, advanced instrumentation, and the role of the dental hygienist as a periodontal co-therapist. Prerequisite(s): DNHY1106, DNHY1128

DNHY2220 Dent Hygiene Prin V 1 1/0/0
This course is a continuation of DNHY2210 and dental hygiene patient oral risk assessments. Special focus includes topics of interest to the graduating hygienist including: smoking cessation, extra oral / intra oral self exam, resume writing, interview skills, professional development, service to the community, and involvement in the professional association. Prerequisite(s): DNHY2210, Corequisite: DNHY2223

DNHY2223 Dent Hygiene Prac V 6 0/6/0
This course is a continuation of DNHY2213 with emphasis on the treatment of moderate to advanced periodontal disease, the development of speed, and an introduction to several advanced dental hygiene techniques. Prerequisite(s): DNHY2213

DNHY2226 Community Dental Hygiene 4 3/1/0
The lecture portion of this course introduces the student to the disciplines and basic principles of dental public health, epidemiological methods, and biostatistical measurement and analysis. The lab portion of this course enables the student to plan, implement, and evaluate a community dental hygiene research project and participate in a community dental service project and screenings. Prerequisite(s): Acceptance into the Dental Hygiene program or permission of program coordinator

DNHY2232 Dental Hygiene Review 1 0/0/1
This course is designed with emphasis to further refine skills already learned in previous Dental Hygiene courses to enable the student to retake licensure examinations. Prerequisite(s): DNHY2213

DNHY2240 Clinical Affiliation I 1 0/0/1
This is a Corequisite to DNHY2213 Dental Hygiene Practice IV with an emphasis on clinical rotations off campus to enhance the dental clinical experience in a more work life experience. The students will be able to work on the development of speed and introduced to a variety of dental hygiene experiences. Prerequisite(s): Corequisite: DNHY 2213

DNHY2246 Clinical Affiliation II 1 0/0/1
This is a Corequisite to DNHY2223 Dental Hygiene Practice V with an emphasis on clinical rotations off campus to enhance the dental clinical experience in a more work life experience. The students will be able to work on the development of speed and introduced to a variety of dental hygiene experiences. Prerequisite(s): Corequisite: DNHY2223

DRAF2230 Electrical Systems Technology 3 1/2/0
The objective of this course is to develop the students knowledge of electrical systems for commercial buildings. Lighting, heat loss, distribution systems, fire alarm systems and introduction to National Electrical Codes are also stressed. Prerequisite(s): None

DRAF2234 HVAC 2 1/1/0
The objective of this course is to develop a basic understanding of Heating/Cooling systems and their designs. This course includes process of bidding, construction management and system coordination. Prerequisite(s): DRAF2230

DSET1102 Engine Service 3 0/3/0
This course teaches how to disassemble, analyze, rebuild, measure, and adjust diesel engines and their components. Prerequisite(s): Pre/Corequisite: TRNS1106

DSET1104 Preventative Maintenance1 0/1/0
This course covers the equipment areas of truck, agricultural and heavy equipment that require periodic maintenance and inspections along with the service procedures to prevent premature failures. Prerequisite(s): TRNS1102

DSET1106 Fuel Systems 2 1/1/0
This course covers the fundamentals of diesel engine fuel system identification, minor repair, testing, and troubleshooting. Mechanical governor operation, fuel system operation, fuel system/governor adjustments, and related engine operation are studied. Prerequisite(s): TRNS1106

DSET1110 Power Train I 3 1/2/0
This course covers the operating principles, diagnosis, and repair of drive train components. Components included will be clutches, mechanical transmissions, drive lines, and drive axles. Prerequisite(s): TRNS1102

DSET1112 Hydraulics I 4 2/2/0
This course covers the fundamentals of hydraulic systems. It is an introduction to hydraulic component operation, maintenance, repair and testing. These systems may be used in agricultural, industrial heavy equipment and trucks. Prerequisite(s): TRNS1102

DSET1114 Vehicle Brakes 3 1/2/0
This course covers hydraulic and air brake system operation, service and diagnosis. Prerequisite(s): TRNS1102

DSET1118 Final Drives 2 0/2/0
This course covers final drives and related components including removal, repair, installation, and adjustment of major units and components. Prerequisite(s): TRNS1102

DSET1120 General Shop Serv Ind Study 2 0/2/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 32 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity plan and the course. Prerequisite(s): TRNS1102, TRNS1104

DSET1122 Diesel Shop Service 3 0/0/3
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 48 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work

completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity plan and the course. Prerequisite(s): TRNS1102

DSET1124 Diesel Shop Management1 1/0/0
This course provides students an opportunity to visit John Deere, Case New Holland or general shops and work with on-site instructors as it relates to management procedures including parts, ordering inventory, repair order writing, payroll, employee-employer relations, customer relations, and communication skills. Prerequisite(s): None

DSET1130 Trans Elec/Start/Charge 4 2/2/0
This course is an introduction to electrical systems. Students will learn how to use DVOMs and their applications. Students will study electrical theory including Ohm's law and its application to electrical systems. The course also introduces service procedures necessary to repair charging and starting system components. Electrical principles are applied to test and troubleshoot complete circuits as well as components of each. Fundamental rebuilding principles and system analysis are emphasized. Safe battery testing and service are performed. Prerequisite(s): None

DSET1132 Intro to Engine Theory 2 2/0/0
This course introduces the theory of today's diesel engines, including operation, repair and maintenance. Students will learn the proper industry procedures for removing, replacing, diagnosing/troubleshooting, rebuilding and assembling of diesel engines. Prerequisite(s): Pre/Corequisite: DSET1134

DSET1134 Intro to Engines 3 0/3/0
This course teaches how to disassemble, analyze, rebuild, measure, and adjust diesel engines and their components. Prerequisite(s): Pre/Corequisite: DSET1132

DSET1140 SOE I 7 0/0/7
Students will apply skill sets previously learned related to truck and/or other diesel-powered equipment and may be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor approval

DSET1144 Electrical Troubleshooting3 1/2/0
This course is a hands-on troubleshooting course that students will apply knowledge of DSET1130. Students will be required to troubleshoot and repair various equipment and vehicles. Prerequisite(s): Pre/Corequisite: DSET1130

DSET2202 Advanced Engines 4 1/3/0
This course covers the procedures for performing major repair/rebuilding of diesel engines. This includes mechanical procedures, concepts, tools, and test equipment for engine repair/rebuilding. Prerequisite(s): DSET1102

DSET2204 Adv Electrical Systems 3 1/2/0
This course teaches failure analysis of electrical systems, the recognition of causes of failures, and how to interpret a wiring diagram. Use of electrical meters to diagnose, locate and repair failures will be practiced. This course covers heavy duty electrical components, rebuilding, inspection and testing. Prerequisite(s): DSET1130, TRNS1102

DSET2206 Electronic Controls 3 1/2/0
This course covers electronic components used to control engines, transmissions, brakes, and hydraulics used in modern equipment. This training will include system analysis, testing, troubleshooting, and replacement of components of operating systems. Prerequisite(s): DSET1130, TRNS1102

DSET2210 Mobile Hydraulics 4 1/3/0
This course covers the hydraulic components used in farm and heavy equipment and trucks. This will include hydrostatic transmission, electric over hydraulic control valves, electronic control components. It will also include troubleshooting of live units with proper testing equipment used in up-to-date service centers. Prerequisite(s): DSET1112

DSET2212 Power Trains II 3 1/2/0
This course covers procedures to test, troubleshoot and rebuild powershift and other specialized transmissions used on farm tractors and heavy diesel powered equipment. Prerequisite(s): DSET1110

DSET2214 Suspension & Alignment3 1/2/0
This course will cover the procedures used in rebuilding, inspection and alignment of steering systems, leaf spring, equalizing beam and air spring suspensions. Prerequisite(s): TRNS1102

DSET2218 Advanced Fuels 3 1/2/0
This course covers the application of the electronic fuel systems on today's electronic diesel engines. This course covers Cat, Cummins, Detroit, John Deere, and others. This includes adjustment, testing, installation, and electronic troubleshooting. Prerequisite(s): DSET1106

DSET2220 Internship 3 0/0/3
This course is designed by the student and advisor in cooperation with industry to provide a job site training experience. The student will prepare an internship training plan reflecting skills to be developed on the internship site. Prerequisite(s): Instructor approval, TRNS1102, TRNS1106, TRNS1110, and 15 DSET credits

DSET2230 Adv Engines & Fuel Systems I 3 1/2/0
This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of diesel engine intake, exhaust and fuel systems including but not limited to Caterpillar, Cummins and Detroit Diesel engines. Prerequisite(s): DSET1132, DSET1134

DSET2232 Adv Engines & Fuel Systems II 3 1/2/0
This course includes repair and overhaul procedures of the internal engine components, including but not limited to, Caterpillar, Cummins and Detroit Diesel engines. Prerequisite(s): DSET2230

DSET2238 Transmissions & Drive Systems 4 1/3/0
This course covers procedures to test, troubleshoot and rebuild power shift and other specialized transmissions used on agricultural, industrial, and diesel trucks. This course also includes final drives and related components including removal, repair, installation, and adjustment of major units and components. Prerequisite(s): DSET1110

DSET2240 SOE II 3 0/0/3
Students will apply skill sets previously learned related to truck and/or other diesel-powered equipment and may be introduced to curriculum skill sets to be delivered in future semesters. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor approval

DTRK1140 SOE I 7 0/0/7
Students will apply skill sets previously learned related to medium and heavy duty trucks and may be introduced to curriculum skill sets to be delivered in future semesters. Skill

sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DTRK2214 Suspension and Alignment 3
1/2/0

This course will cover the procedures used in rebuilding, inspection and alignment of steering systems, leaf spring, equalizing beam and air spring suspensions used on modern medium and heavy duty trucks. Prerequisite(s): TRNS1102

DTRK2230 Advanced Engines I 3 1/2/0

This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of modern medium and heavy duty truck diesel engines. Areas of study include intake and exhaust systems, emission control devices, and fuel systems on but not limited to the following manufactures: Caterpillar, Cummins, Detroit, Navistar, Mack and Volvo truck diesel engines. Prerequisite(s): DSET1132, DSET1134

DTRK2232 Advanced Engines II 3 1/2/0

This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of modern medium and heavy duty truck diesel engines. Areas of study include the operation, inspection, disassembly, and assembly of internal engine components on but not limited to the following manufactures: Caterpillar, Cummins, Detroit, Navistar, Mack and Volvo truck diesel engines. Prerequisite(s): DTRK2230

DTRK2238 Transmissions & Drive Systems 4 1/3/0

This course is designed to give the student an understanding of the theory, operation, troubleshooting and repair of modern medium and heavy duty truck transmission, differential, and driveline components. Areas of study include the operation, inspection, disassembly, and assembly of various manufactures including but not limited to: Allison, Eaton, Meritor, Rockwell, and Mack. Prerequisite(s): DSET1110

DTRK2240 SOE II 3 0/0/3

Students will apply skill sets previously learned related to medium and heavy duty trucks at a sponsoring dealer or fleet shop. Skill sets will be identified in a training plan developed by industry and instructor. Prerequisite(s): Instructor and sponsor approval

DVCM0006 Comprehension Building 3 3/0/0

This course is designed to help students to develop stronger reading comprehension and to strengthen their technical comprehension and vocabulary skills in hopes of greater program success. Prerequisite(s): Minimum scale score on the reading portion of the entrance exam

DVMS0057 Practical Math Applications 3
2/1/0

This course covers practical applications of mathematics principles as they relate to a variety of occupational areas. The course sets the stage for the relevance of mathematics in the world of work. Topics include problem-solving strategies, systems of measurement, accuracy, precision, graphing strategies, introductory probability and statistics, vector applications, basic trigonometry, geometry and formula manipulation. Prerequisite(s): MATH0052, or satisfactory score on the math placement test

DVMS0096 Pre-College Chemistry 3 3/0/0

This course is designed to assist the student in developing a basic understanding of chemistry. Prerequisite(s): None

ECON2210 Macroeconomics 3 3/0/0

Meets MNTC Goal Area 5. This course is divided into two main sections. They are, first, Macroeconomic Basics, which will provide the student with a means to study economic principles as they relate to determinants of national income, national income accounting, business cycles, unemployment, inflation, and aggregate expenditures. These topics provide a foundation for expanded learning later in the course. The second section is macroeconomic policy. This section will take the knowledge gained from the earlier units and use it to gain further understanding in the areas of fiscal policy, financial markets, money and banking, monetary policy, international policy, and the varying viewpoints that have evolved throughout history including the Keynesian and Monetarist schools of thought, among others. Prerequisite(s): None

ECON2222 Microeconomics 3 3/0/0

Meets MNTC Goal Areas 5 and 9. The second semester of the economic sequence stresses "microeconomics" and the concepts of scarcity, production possibilities, supply and demand curves, elastic and inelastic goods and services, competition, monopolies and oligopolies, and poverty and income distribution in the United States. Prerequisite(s): ECON 2210 is recommended

EDUC0091 Learning Technologies 1 1/0/0

This course will teach basic word processing skills, CD Rom usage, and basic Internet skills that give the student the ability to use recent technology to facilitate their successful meeting of the goals and objectives of their college courses. The opportunity to utilize computerized learning tools to enhance basic skills will be available. Prerequisite(s): None

EDUC1001 College Success Skills 2-4

This course is designed to help students develop the basic skills necessary for academic success in college. Topics to be discussed may include (but are not limited to): time management, study skills, note- and test-taking skills, motivation, and community and campus resources. Emphasis is placed on the application of these skills in other classes. Prerequisite(s): None

EDUC1010 Educational Planning 1 1/0/0

This course is designed to discuss the basic skills needed to succeed in college while being a single parent. This will be a practical class that will teach participants how to register for college, apply for financial aid and discuss expectations that are expected from FFCC students. Other topics will be time management, communication skills, personal attitudes and the transition to college. Prerequisite(s): None

EDUC1112 Job Search Skills 1 1/0/0

This course is designed to develop successful job search, application, resume writing, interviewing and job maintenance skills needed to conduct an effective job search. Prerequisite(s): None

EDUC1113 Career Life Planning 2 2/0/0

This course is designed to assist students to develop career exploration skills and strategies through self-exploration, cultural perceptions, and career and major identification. Students will identify potential major/career possibilities. Prerequisite(s): None

EDUC1115 Student Senate Leadership 1
1/0/0

Participation in Student Senate for credit. Prerequisite(s): None

ELL0050 ELL Foundations 4 3/1/0

Grammar-based ELL Foundations is a course designed to prepare learners whose native language is not English to

succeed in college-level fundamental courses. The course focuses on developing fluency in all English skill areas: speaking, listening, reading, and writing. Content is chosen especially to provide sound models for needed basic written forms. Prerequisite(s): Placement by assessment (composite score of 50-69 on the L.O.E.P test)

ELL0060 ELL Reading 3 3/0/0
This reading course is for non-native learners of English. It will intensively teach the English phonics system, including syllabication and word stress. Students will learn the skills and vocabulary necessary to read college level material. Prerequisite(s): Placement by assessment (score of 50-79 on the Reading Comprehension portion of the L.O.E.P. test)

ELL0070 ELL Academic Proficiency Skills 3 3/0/0
ELL College Success Skills is a course designed for students whose native language is not English. The course focuses on skills and knowledge needed to succeed in college level courses in the United States. Prerequisite(s): None

ELL1120 ELL Writing 4 4/0/0
This four-credit course is designed to help non-native English speakers who need to improve their writing skills, so they are ready and able to succeed in college-level fundamental writing courses. Prerequisite(s): ELL0050 or obtain a composite score of 70 to 99 on the Accuplacer Levels of English Proficiency (L.O.E.P.) test

ELL1150 Intermediate Listening Comprehension 2-3
This course is designed for ELL students for whom English is not their native language. It continues the development of listening and speaking skills necessary for participating in college-level classroom discussions, incorporates oral presentation, and fosters critical listening skills needed for taking notes and understanding lectures. Prerequisite(s): An entering student should be able to read, comprehend, and speak English at the "low intermediate" to "high intermediate" level, with a corresponding composite score of 70 to 99 on the Accuplacer Levels of English Proficiency (L.O.E.P.) test

ELTR1100 Survey of Electronics 2 1/1/0
This course covers an overview of the basic electronic theories and circuits including some digital and communication systems. The use of test equipment and the construction of electronic circuits is the main emphasis in this course. Prerequisite(s): None

ELTR1102 Circuit Analysis I 4 2/2/0
This course covers the basic concepts involved in direct current and alternating current circuits including atomic theory, components, and circuits. Prerequisite(s): None

ELTR1104 Circuit Analysis II 3 2/1/0
This course covers series -parallel DC circuits and DC circuit theorems as well as complex reactive circuits using imaginary numbers, series and parallel resonance, filter circuits and characteristics of antennas and transmission lines. Lab procedures verify concepts, laws and relationships learned in theory. Measured data is recorded and interpreted and conclusions drawn. Prerequisite(s): ELTR1102

ELTR1122 Digital I 2 1/1/0
This course covers digital number systems, logics gates, combinational-logic, and simple interfacing circuits. Component-level troubleshooting is covered, in addition to the theory and operation of basic digital test equipment. Prerequisite(s): None

ELTR1123 Digital II 3 2/1/0

This course covers sequential-logic circuits, digital arithmetic circuits, display circuits, memory circuits, and various interface circuits. System-level and component-level troubleshooting is covered, in addition to the theory and operation of sophisticated digital test equipment. Prerequisite(s): ELTR1122

ELTR1140 Car and Home A/V Technology 3 1/2/0
In this course the students will learn techniques used in home and car audio systems and have the opportunity to design, build, and test these systems. The students will learn how to distribute video signals throughout the home and how to setup home theater equipment to optimize performance. Wireless communication techniques for the home will also be discussed. Prerequisite(s): None

ELTR1152 Semiconductors I 4 2/2/0
This course covers semiconductor devices. Diode applications, transistor operation, biasing, and specifications; along with amplifier configurations and applications. Troubleshooting, repair, and design modifications are emphasized. Prerequisite(s): ELTR1102

ELTR1154 Semiconductors II 3 2/1/0
This course covers operational amplifier operation, applications, and related circuitry. Also covered are series, shunt, and IC voltage regulators. Troubleshooting and circuit analysis are emphasized. Prerequisite(s): ELTR1152

ELTR1160 Electronic Assembly Tech2 0/2/0
This course covers the techniques and procedures necessary for assembly and installation of electronic cables, connectors, printed circuit board component extraction and soldering, and the proper use of the chemicals used in electronic assembly procedures. Standard and specialized electronic hand tools and equipment will be used. Prerequisite(s): None

ELTR1162 Surface Mount Technology 2 0/2/0
This course covers the techniques and procedures necessary for assembly and rework (installation and extraction) of surface-mount components (SMC), and will introduce the student to Surface Mount Technology (SMT), SMT manufacturing methods, printed wiring layout, and quality assurance in SMT. Standard and specialized electronic hand tools will be used. Prerequisite(s): None

ELTR1180 Communication Systems I 3 2/1/0
This course covers the fundamentals of radio frequency oscillators, amplitude modulation/demodulation, and AM/FM receiver circuitry. Prerequisite(s): ELTR1152

ELTR1187 Security and Fire Alarm Systems 3 2/1/0
In this course the student will learn what switches and sensors are used in fire alarm and security systems for home and business. They will learn how to wire and install sensors. The student will identify the customer needs and select the necessary equipment that meets Security and Fire Alarm Testing Regulations. They will learn and work with motion sensors, door and window contacts, glass break sensors, smoke and fire detectors, keypads, card entry and control panels. They will configure and program a master control panel to for fire alarm and security systems. Students will test and troubleshoot and repair fire alarm and security systems to help people maintain a safe environment in their home and business. Prerequisite(s): ELTR1102

ELTR2202 Semiconductors III 3 2/1/0
This course covers control devices such as UJTs, SCRs, Diacs, Triacs, Solid-state relays, and switching power supplies. It also covers DC and AC analysis of JFET,

MOSFET, and IGBT amplifiers. ELTR1154	Prerequisite(s):		
ELTR2208 Microprocessors 3 2/1/0 This course is designed to teach students about the function and application of microprocessors. The block diagram, registers, memory locations, data and address buses, control lines and the theory needed to program and interface the microprocessor to external devices will be studied. The student will develop basic and assembly level instructions, program and interface the microprocessor to perform various input/output operations. Prerequisite(s): ELTR1122, ELTR1123		ELTR2254 Sensors & Transducers 2 1/1/0 This course covers the operation and applications of many of the sensors and transducers used in electronic equipment. Prerequisite(s): ELTR1152	
ELTR2212 Microcomputer Sys Program 3 2/1/0 This course covers the basics of computer programming for the technician. Topics include program layout and documentation, if/then statements, looping, and data structures. Prerequisite(s): None		ELTR2256 Electronic Licensing 2 2/0/0 This course reviews the information required to pass a certification test. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2220 Communication Systems II 3 2/1/0 This course is a continuation of Communications Systems I. Advanced topics such as digital modulation, microwave system analysis, and microwave measurements will be covered. Prerequisite(s): None		ELTR2260 Land Mobile Radio 3 2/1/0 This course covers the fundamentals of Land Mobile two-way radio. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2222 Adv Computer Maintenance 3 1/2/0 This course covers maintenance of PC's, backup and recovery, network administration hardware maintenance required to perform well in Computer related areas. Prerequisite(s): PC Maintenance		ELTR2262 Electronic Equip Servicing 4 2/2/0 This course covers the fundamentals of electronic equipment installation, maintenance, troubleshooting, and repair from system to component level. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2226 Service Monitor Operation 1 0/1/0 This course covers the operation of a radio service monitor. Prerequisite(s): ELTR1160, ELTR1180		ELTR2266 Mechanics & Hydraulics 2 2/0/0 This course covers the operating principles of levers, gears, pulleys, inclined planes, and hydraulic systems. Analysis of systems requires use of vector math. Prerequisite(s): None	
ELTR2230 Troubleshooting 4 2/2/0 This course covers troubleshooting of electronic circuits and systems to component level. Emphasis is placed in doing practical hands-on lab applications. Prerequisite(s): ELTR1152		ELTR2268 Programmable Logic Controllers 3 2/1/0 This course covers Programmable Logic Controllers PLCs including their installation, programming and operation. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2236 Multiple Access Systems2 1/1/0 This course will introduce the fundamentals of time division and frequency division multiplexing. Beginning with sample-and-hold circuits, the course will finish with T1, T3, and AT&T's FDM hierarchy. Prerequisite(s): None		ELTR2270 Adv Lab Project I 1 0/1/0 This course covers the design and construction of circuits to perform specific tasks. Projects will be selected by the student. Criteria will be provided by the instructor. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2240 Electromagnetic System 3 2/1/0 This course will introduce the basic concepts of antennae, feedlines, wave propagation, and fiber optics. Prerequisite(s): None		ELTR2272 Adv Lab Project II 2 0/2/0 This course covers the design and construction of two circuits to perform specific tasks. Projects will be selected by the student. Criteria will be provided by the instructor. Since this is a two credit course, goals will be repeated for each project. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2242 Video Systems 2 1/1/0 This course will introduce the basic principles of video standards, video transmission, lighting and camera techniques. Prerequisite(s): None		ELTR2274 Adv Lab Project III 3 0/3/0 This course covers the design and construction of three circuits to perform specific tasks. Projects will be selected by the student. Criteria will be provided by the instructor. Since this a three credit course, goals will be repeated for each project. Prerequisite(s): ELTR1160, ELTR1180	
ELTR2246 Audio Systems 2 1/1/0 This course covers the basic principles of audio, and audio recording and mixing techniques. Prerequisite(s): None		ELTR2280 Industrial Control Systems 3 2/1/0 This course is designed to introduce the student to industrial control systems, its classifications, and interfacing devices such as operational amplifiers, comparators, digital to analog and analog to digital converters, timers, thyristors, and the control of electric motors. Lab exercises will be performed to reinforce the classroom theory. Prerequisite(s): ELTR1123	
ELTR2250 Statistics & Quality 2 2/0/0 This course covers the processes and calculations involved in the measurement of quality. Prerequisite(s): None		ELTR2281 Process Control & Instrumentation 3 2/1/0 This course is designed to introduce the student to the principles of process control techniques and instrumentation used in temperature, pressure, flow, and level control, and industrial detection sensor systems. Lab exercises will be performed to reinforce classroom theory. Prerequisite(s): ELTR2280	

ELTR2285 Intro to PLC 3 2/1/0
This course will introduce the student to the fundamentals of programmable logic controllers, programming, and their wide spread use in the industrial and manufacturing industries. Prerequisite(s): None

ELTR2286 Advanced PLC Interfacing 3 1/2/0
This course is intended to be a capstone course for students of industrial electronic technology. It will cover advanced PLC programming, troubleshooting, and interfacing. The student will design, construct and demonstrate an electronic circuit as a final project (approved by instructor) that is controlled by a PLC or PIC microcontroller. Prerequisite(s): ELTR2285

ELTR2288 Electronic Technology Internship 2 0/0/2
This course provides the student with the opportunity to integrate the knowledge and concepts learned in all previous courses in an actual occupational setting. Prerequisite(s): ELTR1160, ELTR1180

ELWT1102 Line Worker Theory I 4 2/2/0
This course provides the student with basic electrical theory involved in the production and use of electrical energy. In addition, the student practices basic direct current circuitry calculations and rigging skills including basic knots and splices pertaining to the electrical industry. Prerequisite(s): None

ELWT1104 Electrical Structure Installation 5 2/3/0
This course provides the student with introductory knowledge and skills necessary to properly install electrical structures with hand tools and with mechanized structure installation machinery. Prerequisite(s): Pre/Corequisite: ELWT1102

ELWT1106 Climbing Electrical Structure 4 0/4/0
This course provides the student with the knowledge and skills to safely climb and frame various electrical structures to heights of fifty feet. Topics include free-hand and safety strap climbing, and installation and removal of pole line hardware. Prerequisite(s): Pre/Corequisite: ELWT1104

ELWT1108 Const of Overhead Structures 3 0/3/0
This course provides the student with the technical understanding and skill necessary to construct overhead high voltage structures. Topics include interpretation of industry specification manuals, identification of overhead hardware, construction techniques, and tool use. Prerequisite(s): Pre/Corequisite: ELWT1106

ELWT1110 Line Worker Theory II 4 2/2/0
This course provides the study of the principles of alternating current high voltage distribution circuitry. Included in this course are mathematical computation of AC power, conductor application including practice at armor rodding, hand and pre-formed ties, overvoltage and overcurrent installations, and street lighting circuits. Prerequisite(s): Pre/Corequisite: ELWT1102

ELWT1112 Transformers 2 0/2/0
This course provides the student with knowledge and skills necessary for mounting and connecting transformers to primary and secondary systems. The course will also cover paralleling of closed and open banks. Prerequisite(s): Pre/Corequisite: ELWT1110

ELWT1114 Line Construction Reports2 2/0/0
This course provides the student with an understanding of the design of line work construction drawings and equipment installation orders. Prerequisite(s): ELWT1108, ELWT1110

ELWT1116 Pole Top/Bucket Rescue1 0/1/0
This course provides the student with an understanding of procedures necessary to complete a rescue of a line worker disabled while on a pole or in an aerial device. Prerequisite(s): ELWT1106

ELWT1118 Field Construction I 3 0/3/0
This course covers the installation of single-phase high voltage systems under actual field conditions. The course contains two main parts. The first of these two parts is the overhead construction section including structural assembly including grounding requirements, guying, conductor installation including stringing and tying, single-phase transformer, capacitor, and regulator installation. The second main area is underground installation covering trencher operation, primary and secondary cable termination, services, pad mount transformers and sectionalizing cabinets, and street lighting. Prerequisite(s): ELWT1106, ELWT1114

ELWT1120 Field Construction II 3 0/3/0
This course covers the installation of multi-phase high voltage systems under actual field conditions. The overhead section will cover structure assembly including grounding, structural guying, conductor installation including stringing and tying, multi-phase transformer installation, capacitor installation, regulator installation, and the use of protective cover-up material and hot sticks. The underground section will cover multiple cable installation, primary and secondary cable termination's, three-phase pad mount transformer installation and multi-phase sectionalizing cabinet installation. Prerequisite(s): ELWT1106, ELWT1114

ELWT1122 Field Construction III 3 0/3/0
This course gives the student a basic understanding of overhead transmission structure construction and installation requirements for 69KV systems. Students will also participate in two industry hot line schools; one of them by the Minnesota Municipal Utilities Association, the other by the Minnesota Rural Electric Cooperatives. Prerequisite(s): ELWT1118

ELWT1130 Electrical Line Worker Internship 2 0/0/2
This course will concentrate on the student receiving apprentice life work skills under the supervision of an appropriate industry representative. Prerequisite(s): Instructor approval

EMTB1100 Emergency Med Tech Basic 6 5/1/0
The Emergency Medical Technician-Basic course follows the current National Standard Curriculum. This course will include all skills and classroom information necessary to provide Emergency care at the Basic Life Support level. Modules presented include: (1) Preparation of the EMT-B; (2) Airway; (3) Patient Assessment (medical and trauma); (4) Medical/Behavioral Emergencies and OBGYN; (5) Trauma; (6) Infants and Children; (7) Ambulance Operations; and (8) Interventions (medications and Semi-automatic defibrillation). Upon successful completion of the EMT-B Course of instruction, the student will be eligible to take the State/National Written and Practical Examinations. Prerequisite(s): Healthcare Provider CPR Completion

ENGL0050 Writing Fundamentals 3 3/0/0
This basic course in mechanics, usage, sentence patterns, paragraphing, and essay development is designed to provide a foundation for essential writing skills. Students will begin the process of close reading in preparation for college English courses. Prerequisite(s): Placement by assessment

ENGL0055 Reading Techniques 2 2/0/0
This course will give students an opportunity to develop techniques that will improve their reading skills. Techniques include phonetic decoding of new words and encoding of phonetic rules, structural analysis (roots, prefixes, and suffixes), understanding literal concepts, and strategies for reading. Prerequisite(s): None

ENGL0075 Basic Writing 2 2/0/0
This writing course is meant for those students whose assessment scores on the CAPP assessment writing test indicate a brief review of the basics of writing is in order. This course focuses on the process involved in paragraph and essay writing: Prewriting, drafting, revising, and editing. Prerequisite(s): Placement by assessment

ENGL1010 Textbook Reading 3 3/0/0
This course is designed to strengthen reading skills by building vocabulary relevant to content courses, to teach structural analysis of new words, to guide students through reading sub-skills and to teach metacomprehension. Prerequisite(s): Placement by assessment

ENGL1061 Business English 3 3/0/0
This is a basic course in business communications designed to assist the student in the following areas: Review of grammar and usage, spelling, punctuation, and the planning, drafting, and editing of memorandums, letters and reports. Prerequisite(s): Assessment placement in ENGL1101

ENGL1101 College Writing I 3 3/0/0
Meets MNTC Goal Area 1. College Writing is an introductory writing course for the Associate in Arts degree, designed to prepare students for later college and career writing. The course focuses on developing fluency through a process approach, with particular emphasis on rewriting and revision. Students will consider purpose and audience, read and discuss writing, and further develop their own writing processes through successive revisions to produce polished drafts. Course work will include an introduction to argumentative writing, writing from sources, and a short research project. Prerequisite(s): Placement by assessment

ENGL1102 College Writing II 3 3/0/0
Meets MNTC Goal Area 1. Composition & Literature is the second required English course for an Associate of Arts Degree. This course provides students with additional opportunities to develop fluency through a process approach by continuing work with rewriting and revision. Students will read critically from a variety of genres as they continue to give attention to organization, syntax, usage, point-of-view, and voice in their essays. Coursework will include argumentative writing and writing from sources. Prerequisite(s): ENGL1101

ENGL1201 Technical Writing 3 3/0/0
Meets MNTC Goal Area 2. English 1201 is an elective course for those students desiring instruction in report and formal research writing. Students will engage in refining critical thinking skills about the informative, persuasive, and ethical dimensions of their communications as they analyze and evaluate their own ideas as well as the ideas of others. The formally documented multi-source paper(s) will represent the culmination of the student's ability to collect, analyze, and synthesize information. Prerequisite(s): ENGL1101

ENGL1220 Professional & Technical Writing 3 3/0/0
Meets MNTC Goal Areas 1 and 2. This course provides instruction in writing and designing professional and technical documents, including correspondence, descriptions, instructions, reports, and proposals, along with promotional material. Analysis, critical thinking, and synthesis of sources will be covered. Course work also includes a formally -

documented, multi-source professional paper. Prerequisite(s): ENGL1101

ENGL2221 Creative Writing: Poetry 3 3/0/0
Meets MNTC Goal Area 6F. This creative writing course focuses on the writing of poetry. It is a workshop designed to offer students practice in the composition of poetry and poetic modes of writing. Emphasis will be on writing original work and on learning the skills needed to write successful poetry. The course will emphasize helping students learn to develop their creative voice. This course counts as a fine arts course; it places emphasis on the creation of fine arts as opposed to the formal, critical analysis of them. Prerequisite(s): ENGL1101

ENGL2222 Creative Writing: Fiction 3 3/0/0
Meets MNTC Goal Area 6F. This creative writing course focuses on the writing of short fiction: it may also include creative essay writing. It is a workshop designed to offer students practice in the composition of fiction and other narrative modes of writing. Emphasis will be on writing original work and on learning skills needed to write successful narratives. The course will emphasize helping students learn to develop their creative voice. This course counts as a fine arts course; it places emphasis on the creation of fine arts as opposed to the formal, critical analysis of them. Prerequisite(s): ENGL1101

ENGL2230 Environmental Literature 3 3/0/0
Meets MNTC Goal Areas 2, 6, and 10. This course will focus on selected readings that will enable students to define "environment." Readings will include personal, expository, and argumentative essays and articles; technical reports; legislative and judicial actions; fiction and poetry which reflect the increasingly global focus of environmental concerns. Writing activities will allow students to explore informal writing, personal essays, argumentative papers, and research projects. Students will gain experience in reading critically and in writing logical, sound papers that deal with environmental issues. Prerequisite(s): ENGL1101

ENGL2231 Intro to Literature: Poetry 3 3/0/0
Meets MNTC Goal Areas 2, 6 and 7. This literature course will increase students' understanding of individual and group differences through a close study of American poetry. Issues of race, gender, class, tradition, and value will be the focus of the course as illuminated by the literature. The course will also cover the basic elements of poetry. Prerequisite(s): Completion of or concurrent enrollment in ENGL1101

ENGL2234 Intro to Literature: Short Stories 3 3/0/0
Meets MNTC Goal Areas 2, 6, and 7. This literature course will increase students' understanding of individual and group differences through a close study of American short stories. Issues of race, gender, class, tradition, and value will be the focus of the course as illuminated by the literature. The course will also cover the basic elements of short stories. Prerequisite(s): Completion of or concurrent enrollment in ENGL1101

ENGL2235 Intro to Literature: Drama 3 3/0/0
Meets MNTC Goal Areas 2, 6, and 8. This literature course will introduce students to the growing interdependence of the people of the world through a close study of drama. Studying drama written by various writers around the world will allow students to develop an understanding of and an appreciation for the human condition and culture. The course will also cover the basic elements and concepts of drama. Prerequisite(s): Completion of or concurrent enrollment in ENGL1101

ENGL2236 Intro to Literature: Novel 3 3/0/0

Meets MNTC Goal Areas 2, 6, and 7. This literature course will involve students in a close reading of selected novels that focus on individual and group differences in both the U.S. and abroad. Attention will be paid to the traditions and values of the writers and as portrayed in the literature. Basic concepts and elements of the novel will also be studied. Prerequisite(s): Completion of or concurrent enrollment in ENGL1101

ENGL2237 Intro to Literature: Short Prose 3
3/0/0

Meets MNTC Goal Areas 2, 6, and 9. This literature course will focus on the ethical dimensions of political, social and personal life as found in short prose. The basic elements and concepts of short prose will be studied. Prerequisite(s): Completion of or concurrent enrollment in ENGL1101

ENGL2239 Nature Writers 3 3/0/0

Meets MNTC Goal Areas 2, 6 and 10. This course will focus on books and texts written by great nature writers. While special emphasis will be placed on those works that stress conservation and ecology, others will enable students to see the human struggle with the environment as protagonist. Material may also include travel writing, as well as the more recent directions toward urban nature and nontraditional/multicultural perspectives. Texts may include nonfiction, novels, poetry and plays. Students will gain experience in reading critically and writing logical, sound papers that deal with environmental issues and text analysis. Prerequisite(s): ENGL1101

ENGL2302 American Ethnic Literature 3
3/0/0

Meets MNTC Goal Areas 6 and 7. This multi-genre literature course is a study of significant writers and selected works presenting diverse groups based on race, ethnicity, gender, class, culture, etc. Through discussions of literature, the origins, contributions and the changing dynamics of specific groups in the United States will be studied. Prerequisite(s): ENGL1101

ENGL2310 Intro to Mythology 3 3/0/0

Meets MNTC Goal 6. This course surveys the role that mythology has played in revealing how society viewed the world of its day by reading and discussing a variety of short myths and at least one early novel. It will also survey the changing role of heroic figure as presented in myth, past to present. Prerequisite(s): ENGL1101

ENGL2314 Intro to Shakespeare 3 3/0/0

Meets MNTC Goal Area 6. This course introduces students to the works of William Shakespeare. Students will become familiar with Shakespeare's works through a combination of reading at least four plays and a variety of poems; the course may include viewing adaptations of Shakespeare's plays to the screen. The course will also cover the society and time period (Renaissance) in which Shakespeare wrote, and how they have contributed to his works. Emphasis in the course is placed on close reading and critical analysis of Shakespeare's plays. Prerequisite(s): ENGL1101

ENGL2320 Special Topics 3 3/0/0

Meets MNTC Goal Areas 2 and 6. This literature course is an in-depth study of a particular literary genre, theme, or topic. Examples include but are not limited to Horror and Supernatural Fiction, Utopian/Dystopian Literature, Literature in Translation. Course may be repeated for credit with a change in subtitle. Prerequisite(s): ENGL1101

ENGL2321 Women in Literature 3 3/0/0

Meets MNTC Goal Areas 6 and 7. This multi-genre course is an examination of women's roles, choices, and lives in many

countries and in many times. The course gives attention to the diverse cultural forces that affect women's beliefs and attitudes and the circumstances in which the women live. Prerequisite(s): ENGL1101

ENGL2330 Individual Authors 3 3/0/0

Meets MNTC Goal Areas 2 and 6. This literature course is a study of one or two major influential authors. The authors focused on will vary and will be named as a subtitle to the course. Students will become familiar with the author(s), her/his background, and the time and society in which s/he lives and how these factors have influenced the works the author(s) has produced. This course will include critical analysis and responses to the works studied. The course may be repeated for credit with a change in subtitle. Prerequisite(s): ENGL1101

ENGL2331 American Literature I 3 3/0/0

Meets MNTC Goal Areas 6 and 7. This multi-genre course is designed to introduce students to the diversity of the human experience as reflected in American literature and the historical context that influenced its writers. Prerequisite(s): ENGL1102

ENGL2332 American Literature II 3 3/0/0

Meets MNTC Goal Areas 6 and 7. This multi-genre course is designed to introduce students to the diversity of the human experience as reflected in American literature and the historical context that influenced its writers. Prerequisite(s): ENGL1102

ENGL2361 British Literature I 3 3/0/0

Meets MNTC Goal Area 6 and 8. This multi-genre course will introduce students to a broad spectrum of British literature which resulted from political, economic, religious, linguistic and cultural phenomena in Great Britain. Prerequisite(s): ENGL1102

ENGL2362 British Literature II 3 3/0/0

Meets MNTC Goal Area 6 and 8. This multi-genre course will introduce students to a broad spectrum of British literature which resulted from political, economic, religious, linguistic and cultural phenomena in Great Britain. Prerequisite(s): ENGL1102

ENGR1100 Project Management 1 1/0/0

This course provides an overview of the construction industry and introduces the student to the duties and responsibilities of the construction professional. Students will be exposed to the fundamentals of construction techniques and methods employed by professionals in the industry with an emphasis on career opportunities. Prerequisite(s): None

ENGR1118 Engineering Applications 3 3/0/0

This course covers the application of the knowledge of geometry and trigonometry necessary in the construction and manufacturing industry, architecture, mechanical drafting, construction management and civil engineering. Prerequisite(s): MATH0090 or satisfactory score on the math placement test

ENGR1126 Engineering Graphics 3 1/2/0

Introduces and develops basic skills in drawing, lettering, orthographic projection, sections and dimensioning. This course will also apply the basic fundamentals of pictorial drawing, including isometric, oblique, perspective, shade and shadow and freehand sketching. Prerequisite(s): None

ENGR1132 Office Systems & Equip 2 1/1/0

This course covers the application of windows software systems in coordination with AutoCAD software as well as general office equipment setup and use. Prerequisite(s): Pre/Corequisite: CADD1102

ENTR1102	Start-Up Survival & Success	1	1/0/0	Through this introductory course students will be able to recognize key entrepreneurial qualities and identify new business opportunities. Prerequisite(s): None	electricity and how it works in relation to skin care machines. Prerequisite(s): None
ENTR1104	Preparing Your Business Plan	1	1/0/0	Through this introductory course students will be able to understand the process to be used in preparing a business plan. Prerequisite(s): None	ESTH1802 Skin Sciences 2 1/1/0 In this course students will learn the function, layers and anatomy of the skin. Students will also learn how to conduct a complete consultation and analysis of the skin. Prerequisite(s): None
ENTR1106	Sources of Funding, Alternatives to Starting from Scratch	1	1/0/0	Through this introductory course students will be able to evaluate different sources of financing, decide whether to start or purchase an existing business, learn about franchise agreements and understand the basics of managing your own business. Prerequisite(s): None	ESTH1805 Facial Care Practices 3 1/2/0 In this course you will learn how to perform facial massage and facial treatments. You will also learn how to incorporate machines into your treatments. In addition you will learn about various methods of hair removal. Prerequisite(s): None
ENTR1112	Understanding Your Accounting Systems	1	1/0/0	Through this course the various aspects of what type of accounting systems are available for the beginning entrepreneur will be discussed. Included will be computer systems, software, inventory systems, receivable and payable management and internal control procedures. Prerequisite(s): None	ESTH1807 The Business of Skin Care 3 2/1/0 In this course you will learn the various types of ownerships. You will also learn how to keep accurate business records and how to market for and retain clients. Prerequisite(s): None
ENTR1114	Understanding Your Financial Statements	1	1/0/0	Through this course the various components of balance sheets, income statements and cash flow standards will be discussed along with key ratios and how to analyze the results. Prerequisite(s): None	ESTH1808 Advanced Skin Treatments 3 1/2/0 In this course you will learn advanced skin care techniques including lymph drainage peels, microdermabrasion, and spa body treatments. Prerequisite(s): None
ENTR1116	Understanding Different Tax Issues	1	1/0/0	Through this course various legal and tax topics will be discussed including: income taxes for proprietorship, partnerships and corporations; payroll taxes for employees; sales taxes and other tax issues. Prerequisite(s): None	ESTH1810 Micro Dermagraphics 4 2/2/0 In this course you will be learning the art of applying permanent cosmetic make-up, and corrective/camouflage applications. This course will include client consultation, safety and sanitation. Micro Dermagraphics is an unregulated service and is exempt from regulation by the board of Barbers and Cosmetologists. Prerequisite(s): None
ESL1125	Content Based ESL	1	1/0/0	This course is designed to prepare limited English speakers to succeed in college level courses. Prerequisite(s): None	FASH1140 Textiles 3 2/1/0 Fabric information becomes a main concern when buying or selling fashion apparel, and home and office furnishings. This course is designed to give the student knowledge of fiber characteristics, fabric construction and performance, fabric care, and labeling. Prerequisite(s): None
ESL1130	English as a Second Language	2	2/0/0	Content Based ESL is a course designed to prepare limited English speakers to succeed in college level courses. The course focuses on development of fluency and literacy in English as it relates to the academic and career setting. This course is designed to parallel courses in other disciplines. Prerequisite(s): Placement by assessment	FASH1144 Fashion History & Trends 3 3/0/0 This course is designed to offer an introduction of fashion and includes the study of social, economic, and psychological factors influencing the fashion industry. The definite patterns of past and present fashion are used to predict the direction of future trends. Prerequisite(s): None
ESL1131	English as a Second Language	2	2/0/0	This course is a continuation of ESL1130 and is designed to prepare limited English speakers to succeed in college level courses. The course focuses on development of fluency and literacy in English as it relates to the academic and career setting. This course is designed to parallel courses in other disciplines. Prerequisite(s): None	FASH1152 Professional Image Strategies 3 2/1/0 This course includes the fundamental guidelines for developing a total professional persona. Complementing one's personal characteristics, expressing one's personality and behaving in an appropriate manner is important to create the desired image of a well-dressed professional. This course includes guidelines for personal clothing selection as well as for assisting others to make selections. Prerequisite(s): None
ESTH1800	Infection Principles for Esthetics	1	1/0/0	In this course you will learn about the various organisms, how they cause diseases, and how their spread can be prevented. You will also learn about the effects of cosmetics and skin care products on the skin. You will explore the basics of	FASH1158 Business Insights 1 0/1/0 Examination of the fashion industry from designers and manufacturers to the final finished product in the hands of the buying public is covered in this course. Students analyze the impact of current events, trendsetters, the economy, the media, and technology on current fashions in the marketplace. This hands-on course includes a several-day field trip to Minneapolis. Prerequisite(s): Open to Marketing careers majors

FASH2242 Fashion Accessories 3 3/0/0
This course provides product knowledge in various fashion accessory areas. Since apparel and accessories are worn together, their evolution and trends are directly related to each other. Principles of manufacturing, merchandising, selection and sales of accessories are explored. Prerequisite(s): None

FASH2248 Buying 3 3/0/0
The essentials of effective retail fashion buying are covered in this course. The main areas include the retail buying environment, the planning and control functions and the buyer/market/vendor relationship. Prerequisite(s): None

FASH2250 Visual Merchandising 3 2/1/0
This course covers the principles and elements of design and display. During this course, the students are required to build various displays which utilize the elements and principles of visual merchandising. Prerequisite(s): None

FASH2258 Field Studies 2 0/2/0
Examination of the fashion industry from designers and manufacturers to the finished product will be covered in this course. Students will analyze the impact of current events, trend setters, the economy, the media, and technology on current fashions in the market place. This hands-on course includes a several day field trip to New York or other major market areas. Prerequisite(s): None

FIRE1100 Intro to Fire Service 2 2/0/0
This course covers the basic information that the student will need to understand the fire protection career field. It will provide an overview of the firefighter selection process and assist in preparing the student for the competitive selection process. It will also provide additional information on fire protection careers other than that of a firefighter. This course will cover the history of public fire protection; basic terminology; the chemistry, physics and behavior of fire; fire suppression; fire-based emergency medical services; hazardous materials response; fire prevention and physical fitness training requirements. Prerequisite(s): None

FIRE1104 Job Skills I 1 0/0/1
This course is the first in a series of internships within the fire service. The student will be assigned to a fire department to reinforce the skills learned in the classroom. This course will include departmental rules and regulations, station and grounds maintenance, assignment and maintenance of personal protective equipment and the use and maintenance of fire service hand tools and equipment. In addition to reinforcing classroom instruction, this course will provide the student the opportunity to become involved in fire service emergency responses. The students participation in emergency responses will be determined by the fire department officer in charge. Prerequisite(s): None

FIRE1106 Firefighter I & II 3 3/0/0
This course covers the objectives of the Minnesota State Fire Chiefs Association (MSFCA) for certification as a firefighter I and firefighter II. The MSFCA objectives are based on the National Fire Protection Association's (NFPA) 1001 Standard on Fire Fighter Professional Qualifications. This will prepare the student to function at or above the minimum level of training for entry into a fire protection career field. Prerequisite(s): None

FIRE1108 Firefighter I & II Skills 4 0/4/0
This course covers the objectives of the Minnesota State Fire Chiefs Association (MNFCFA) for certification as a Firefighter I and II. The MNFCA objectives are based on National Fire Protection Association (NFPA) 1001 Standard on Fire Fighter Professional Qualifications. This will prepare the student to function at or above the minimum level of training for entry into a fire protection career field. Prerequisite(s): None

FIRE1112 Fire Apparatus 3 1/2/0
This course covers the major types of firefighting apparatus such as pumpers, tankers (tenders), aerial ladders, elevation platforms, rescue units, aircraft crash vehicles and other support vehicles. Students will be taught the operation of and operator maintenance of fire service vehicles. Prerequisite(s): Valid drivers license

FIRE1150 HazMat Operational 3 2/1/0
This course is designed to teach the necessary skills to protect yourself, your fellow responder and the public from exposure in a hazardous materials incident. The course meets the requirements of the OSHA 1910.120 for the First Responder Operation level. The student will learn how to recognize and identify the presence of hazardous materials, the proper protective clothing to use, how to decontaminate properly, how to establish an Incident Command System and the proper standard operating procedures to maintain safety at the incident scene. The course follows the NFPA Standard 472 requirements for the First Responder Operational level. Prerequisite(s): None

FIRE1152 Building Construction 3 3/0/0
This course is designed to teach the student the principles used in constructing various types of buildings. The student will learn the basic principles used and types of construction found in the U.S. The curriculum follows the standards set by NFPA 1001 - Fire Fighter II and NFPA 1021 - Fire Officer. Prerequisite(s): None

FIRE1154 Company Functions 2 2/0/0
This course is designed to apply the training and knowledge learned in Fire Fighter I, II and III to company operations. Upon completion, the student should be able to work effectively as part of a group and be able to carry out specific company assignments. Prerequisite(s): None

FIRE1160 Vehicle Extrication 1 0/1/0
This course covers the current national standards and practices involved in removing victims from various types of entanglements within a motor vehicle. This course will cover the latest information on rescuer safety, supplemental restraints in vehicles, alternative fuels, and the hazards associated with motor vehicle accidents. The student will become familiar with and utilize hand and power tools, including heavy hydraulics to disentangle victims from motor vehicle wreckage. Prerequisite(s): None

FIRE1170 High Angle/Low Angle Rope Rescue 2 0/2/0
This course covers rescue situations involving working at low grade and elevated heights. Ropes, knots, rigging, climbing systems, lowering systems, and rappelling will be utilized in removing victims from simulated elevations and accessible from below grade areas. Prerequisite(s): None

FNCS1110 Intro to Financial Services 2 2/0/0
This course covers the history of banking, bank organizational structure, the Federal Reserve System, and the types of services provided by financial institutions. Deposit, loan, and consumer services will be emphasized. Topics include checking accounts, savings accounts, credit cards, electronic funds transfer, loan products, loan processing, trusts, bank profitability, deregulation, and safety of bank funds. This course also gives attention to industry concern about customer service, sales, marketing, and competition. Prerequisite(s): None

FNCS1114 Consumer Lending 3 2/1/0

This course covers the fundamental procedures used by consumer lenders in making lending decisions. The student will perform loan interviewing, credit investigation, loan pricing, and the preparation of documents for consumer loans. Students will develop notes, security agreements, contracts and other supporting credit documents. Topics will include consumer loan servicing, credit products, marketing, loan documentation, loan portfolio management, lien searches, and the functions of the Uniform Commercial Code. Prerequisite(s): None

FNCS1118 Personal Finance Prod/Cust Srvc 3
2/1/0

This course covers the sale of new checking, savings and certificate accounts, and other financial products. The student will prepare account applications, check orders, and all forms necessary for the sale of all financial products. The student will also conduct simulated sales of financial products. Topics include checking accounts, savings accounts, certificates of deposits, savings bonds, cashiers checks, loan payments, money orders, and all other financial products and services. Prerequisite(s): None

FNCS1122 Teller Applications 3 1/2/0

This course covers the accepting and processing of financial cash items, Canadian exchange, operating teller machines, and cash drawer balancing. Topics include deposit procedures, withdrawal procedures, teller machine processing, cash management, buying and selling Canadian funds, accepting loan payments, processing all financial products covered in FNCS118 and robbery. Prerequisite(s): FNCS1118

FNCS1126 Credit Counseling & Collections 2
1/1/0

This course covers the procedures used by credit managers and support staff in counseling past-due credit accounts and in recovering bad debts. Counseling activities will include conducting a simulated interview of overextended debtors, preparing a debt management plan, and advising customers. Credit recovery activities will include preparing a collection plan, skip-tracing plan, and collection letters. Topics include fair debt collection practices, consumer debt management, account contact procedures and credit counseling. Prerequisite(s): FNCS1114

FNCS2210 Financial Statement Analysis 3
2/1/0

This course covers the principles used in analyzing borrower financial statement and budgets as performed by a credit analyst. The student will learn how to prepare, read and analyze financial statements. Topics include analysis of income statements, balance sheets, funds flow, risk, obtaining and spreading statements, cash flow projections, capital accounts and financial ratios. Prerequisite(s): ACCT2211, ACCT2201, FNCS1114

FNCS2220 Real Estate Lending 3 2/1/0

This course covers the fundamental procedures used by mortgage lenders and support staff in providing loans to homeowners. The student will prepare real estate financing applications, appraisals, truth in lending forms, disclosure settlement statements, collateral releases, and other supporting credit documentation. Topics include mortgage types, FHA/VA/Conventional financing, second mortgages, loan documentation, title insurance, foreclosure, construction financing, and appraisal. Prerequisite(s): FNCS1114

FNCS2240 Financial Internship 3 0/0/3

This course is designed to provide the student with a learning occupational experience in the finance and credit service 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 Financial Credit Services major.

Prerequisite(s): Completion of all required courses in the major and advisor approval

FREN1111 Beginning French I 4 4/0/0

French 1111 is the first semester of Beginning French. Basic instruction is provided in the correct form and use of the French language in the present, past, and informal future tenses of the indicative mood. Study concentrates on oral and written comprehension of simple French, verbal expression of personal themes, pronunciation and grammar. Culture, protagonists of the fine arts, and contemporary daily life are also important components of this course. Prerequisite(s): None

FREN1112 Beginning French II 4 4/0/0

French 1112 provides continued basic instruction in the correct form and use of the French language. Study concentrates on oral and written comprehension of simple French, verbal expression of personal and extended themes, pronunciation and grammar in simple present, past, informal future, and the present perfect tenses of the indicative mood; and the present tense of the subjunctive mood, and soft commands. Culture, protagonists of the fine arts, and contemporary daily life are also important components of this course. Prerequisite(s): FREN1111

FREN2211 Intermediate French I 4 4/0/0

Meets MNTC Goal Area 8. French 2211 is the first semester of Intermediate French. Reading, writing, listening and speaking continue to be developed through a focus on historic, political, cultural and artistic expressions of the French-speaking world. Grammar from Beginning French 1112 is lightly reviewed. New grammatical skills include the perfect tense of the indicative mood and simple tenses of the subjunctive mood. Prerequisite(s): FREN1112

FREN2212 Intermediate French II 4 4/0/0

Meets MNTC Goal Area 8. French 2212 is the second semester of Intermediate French. Reading, writing, listening and speaking continue to be developed through a focus on historic, political, cultural and artistic expressions of the French-speaking world. Grammar from Intermediate French 2211 is further developed to include the simple and perfect tenses of the indicative and subjunctive moods. Prerequisite(s): FREN2211

FYE1101 First Year Experience 3 3/0/0

The FYE1101 First Year Experience course is designed to help MSCTC students strengthen and develop critical and creative thinking skills associated with a college academic experience, social adaptation to a new environment and making connections with faculty, staff, and resource offices. Topics include: an understanding of individual risks and barriers, multiculturalism, life and career planning and personal responsibility. This course is also designed to help students develop the basic skills necessary for academic success in college. Additional topics to be discussed may include (but are not limited to): time management, study skills, note- and test-taking skills, motivation, and community and campus resources. Prerequisite(s): None

GDTC1102 Drawing I 3 1/2/0

Students develop basic drawing and visual skills, working with 2 and 3 dimensional objects. Pencil drawing is emphasized. Prerequisite(s): None

GDTC1104 Drawing II 3 1/2/0

The objective of this course is to develop a student's drawing abilities through the use of pen and ink, wash, markers, scratchboard, and opaque watercolors. Prerequisite(s): None

GDTC1112 Design & Layout I 4 4/0/0

This course introduces students to the basic elements and principles of design to begin basic layout. Students also begin to learn technical layout skills in Adobe InDesign. Prerequisite(s): Corequisites: GDTC1134, GDTC1126

GDTC1114 Design & Layout II 4 4/0/0
As a second design course, students will expand upon their layout and basic design knowledge by learning how to apply grids to their layout and introduces the student to beginning brand concepts. This course focuses on creating design personalities for various projects. Prerequisite(s): GDTC1112

GDTC1126 Digital Photography 3 3/0/0
The student develops basic photographic skills and knowledge using a digital camera for a variety of assignments. Prerequisite(s): None

GDTC1128 Typography 3 1/2/0
Students will learn the history, structure and terminology of typography. Projects produced by students will utilize type forms, rules and design styles. Prerequisite(s): GDTC1112, GDTC1134

GDTC1134 Electronic Drawing I 3 2/1/0
This course covers fundamental functions of Adobe Illustrator or other vector-based equivalent instructor designated software, to create basic illustrations and layout. Prerequisite(s): None

GDTC1144 Electronic Drawing II 3 2/1/0
This course covers the use of Adobe Illustrator or equivalent instructor designated vector based software using the Macintosh computer to create and manipulate electronic illustrations, layouts and artwork. Prerequisite(s): GDTC1134

GDTC1150 Process Printing Theory 3 3/0/0
This course provides foundational theory on print process as well as printing terminology. Focus is on theory and not on application of technology. Prerequisite(s): None

GDTC2202 Electronic Image Manipulation 4 2/2/0
Using tutorials, the student manipulates images in a variety of ways with Adobe PhotoShop or equivalent software. Prerequisite(s): None

GDTC2204 Electronic Drawing III 3 1/2/0
This course covers complex functions of Adobe Illustrator of equivalent instructor designated vector-based graphic software. Students will create complex illustrations and layouts incorporating art brushes, plug-in filters, gradient meshes and other advanced commands. Prerequisite(s): GDTC1134, GDTC1144

GDTC2212 Design & Layout III 3 2/1/0
Students focus on brand and identity development in this class. Each student develops their own fictitious company and develops a logo identity, stationery and supporting brand materials including an exclusive brand identity guide. Students also learn about design research and presentation of their work. Prerequisite(s): GDTC1114

GDTC2238 Layout & Design Studio 3 1/2/0
Students work with the instructor on a one-to-one level developing individual projects for building their portfolio with more refinement on areas the student is either interested in or requires further development. Prerequisite(s): GDTC2202, GDTC2212

GDTC2242 Electronic Publishing 3 2/1/0

Students learn technical skills necessary for page layout on the computer using Adobe InDesign or equivalent software. Prerequisite(s): None

GDTC2244 Adv Electronic Imaging 3 2/1/0
This course covers digital image creation, manipulation and preparation for output using a variety of advanced functionality of Adobe PhotoShop, Adobe Illustrator and QuarkXPress or equivalent instructor-designated raster, vector and publishing software. Prerequisite(s): GDTC1144, GDTC2202

GDTC2256 Graphic Dsgn Prof Prac 4 3/1/0
This course addresses the professional practice of graphic design technology. The course will include the following topics: project planning and management, resume writing, interviewing skills, presentation techniques, freelance business operation and portfolio preparation. Prerequisite(s): GDTC2212, GDTC2242

GDTC2276 Graphic Dsgn Internship 3 0/0/3
Students are placed temporarily in a partnering graphic industry establishment where they are able to utilize their graphic design technology skills in a real-world experience. Prerequisite(s): GDTC2202, GDTC2212

GDTC2278 Digital Preflight 3 2/1/0
On the Macintosh computer, students will create and analyze electronic mechanical files to determine and rectify potential conflicts, if necessary, that might arise in generation of output at imagesetter. Students will present electronic files to a service bureau for evaluation at the industry level. Utilize Photoshop, Illustrator and Quark or other raster, vector, or publishing software as determined by the instructor. Prerequisite(s): GDTC2242

GEOG1110 World Geography 3 3/0/0
Meets MNTC Goal Areas 5 and 8. Students will gain an understanding and appreciation of the spatial relationship of the physical and human elements of our world with an emphasis on the interdependence of nations and peoples. Geography describes the earth's environments and gives character to places through words, maps, and graphics, and this course will explore these elements and their contributions to the diversity of world geographics. The student will become aware of how the world and the earth's people interact in local regions and in patterns around the globe. Prerequisite(s): None

GEOG2210 Physical Geography 3 3/0/0
Meets MNTC Goal Areas 5 and 10. The study of Geography gives character to places through words, maps, globes and graphics. Students will gain an understanding of the Earth's Physical Geography in the areas of climate, natural vegetation, geologic processes, soils, water resources and the various types of landforms found throughout the world. An exploration of the potential imitations of natural resources and the impact on human interaction with the environment will be a component of the course. Topics concerning environmental issues across international boundaries will also be explored, and students will gain an understanding of the impact of these issues on human life. Students will gain understanding that the geography of natural resources has a direct impact on human habitat and the societies associated with various groups of people. Prerequisite(s): None

GER1111 Beginning German I 4 4/0/0
GER1111 is the first semester of Beginning German. Basic instruction is provided in the correct form and use of the German language in the present, past, and informal future tenses of the indicative mood. Study concentrates on oral and written comprehension of simple German, verbal expression of personal themes, pronunciation and grammar. Culture, protagonists of the fine arts, and contemporary daily

life are also important components of this course.
Prerequisite(s): None

GER1112 Beginning German II 4 4/0/0
GER1112 provides continued basic instruction in the correct form and use of the German language. Study concentrates on oral and written comprehension of simple German, verbal expression of personal and extended themes, pronunciation and grammar in simple present, past, informal future, and the present perfect tenses of the indicative mood; and the present tense of the subjunctive mood, and soft commands. Culture, protagonists of the fine arts, and contemporary daily life are also important components of this course.
Prerequisite(s): None

GSCI1108 Info Retrieval - 21st Century 1 0/1/0
This course prepares students for searching, interpreting, and retrieving information using print indexes, online databases, CD-ROMS, and Internet. Prerequisite(s): CPTR1104

GSCO1102 Applied Communications3 3/0/0
This course is designed to teach the basics of style and substance in oral and written communications. It will allow students to gain confidence in preparing, practicing, and evaluating written and oral work; provide insights into the thinking process in general, as well as insights into the thinking process which produces clear, creative, and logical speeches and composition; and understanding the vital role communication has in the world of work. Prerequisite(s): ENGL0050 or satisfactory score on the communications placement test

GSMS1000 Technical Mathematics 3 3/0/0
This course presents basic mathematical topics as they are applied in a technical program. The course includes a review of basic mathematical operations, and continues with the development of algebraic and trigonometric skills in a technical setting. Most concepts will be applied through course specific problems. This course is not intended for transfer. Prerequisite(s): MATH0052, or satisfactory score on the math placement test

GSMS1002 Technical Trigonometry 2 2/0/0
This course emphasizes the application of basic algebra and trigonometry in problem solving. Topics covered will include algebraic equations, trigonometric functions and their properties, trigonometric identities, vector analysis and graphs of trigonometric functions. Prerequisite(s): MATH0090, or satisfactory score on the math placement exam

GSMS1004 Technical Trigonometry I/3 3/0/0
This course emphasizes the application of basic algebra and trigonometry in problem solving. Topics covered will include algebraic equations, trigonometric functions and their properties, trigonometric identities, vector analysis and complex numbers. Prerequisite(s): GSMS1002, or satisfactory score on the math placement exam

GSMS1102 Intro to Nutrition 2 2/0/0
This course is designed to introduce the student to the science of nutrition, the study of food nutrients and other substances, their action, interaction, and balance. Special emphasis is placed on the interrelationship between diet, nutrition, health, and disease. Prerequisite(s): None

GSMS1104 Intro to Anatomy & Physiology 3 3/0/0
This course is designed to assist the student in developing a basic understanding of the normal structure and function of the body. Prerequisite(s): None

GSMS1110 First Aid / CPR 1 .5/5/0
This course teaches Basic Life Support using American Heart Association or American Red Cross guidelines and First Aid using American Academy of Orthopaedic Surgeons (AAOS) or American Red Cross Guidelines. Prerequisite(s): None

GSMT1600 eBusiness Auctions 2 2/0/0
Today, the eBay community includes more than a hundred million registered members from around the world. People spend more time on eBay than any other online site, making it the most popular shopping destination on the Internet. The Internet business model has changed the way people conduct business. Can you benefit from participating in online auctions? This course covers the basics of conducting business using an online auction service. Students will learn and employ strategies to increase their bidding and selling expertise while minimizing the dangers involved with online commerce security. Prerequisite(s): None

GSSI1104 Human Relations 3 3/0/0
This course is designed to help the student gain an awareness of and improve upon human relationships especially appropriate to the workplace. This course is a study of human relations as it relates to an employee's relationship with him/herself, co-workers, supervisors, and customers. Emphasis will be placed on team building, sexual harassment, and cultural diversity in the workplace. Prerequisite(s): None

GSSI1112 Contemporary Economics3 3/0/0
This course introduces the general concepts of economic issues that affect everyone, from one's personal economic problems to the economic problems of our society, our nation, and the world. Prerequisite(s): None

GSWS1102 Contemporary Career Search 1 0/1/0
This course covers such contemporary career topics as employer expectations, job market trends, networking, and various aspects of the employment search process, including legal and ethical issues. To apply their knowledge of the employment process, students develop resumes, letters, and applications, as well as identify and use effective interviewing techniques. This course emphasizes a comprehensive knowledge of career processes that will serve students throughout their working lives. Prerequisite(s): None

GSWS1108 Wellness and Work 1 1/0/0
This course explores the choices people make with regard to their own health and how this affects their work performance and relationships with co-workers. Participants will assess their current lifestyle, design a wellness plan and work toward integration of wellness concepts in their personal and professional lives. The composition and effectiveness of worksite wellness programs are also examined. Prerequisite(s): None

HEAT1102 Sheet Metal Design 3 2/1/0
This course covers sheet metal equipment, tools, materials, and layout procedures for the beginner to construct and install ductwork. Design fundamentals will be interpreted and installation procedures will be practiced in lab activities in this course. Prerequisite(s): None

HEAT1104 Control Electricity 2 1/1/0
This course provides the student with an understanding of electromagnetism, sign wave principles, resistive, inductive, capacitive and resonant circuits as related to the National Electrical Code. Prerequisite(s): CONE1102; Corequisite: MATH0090

HEAT2202 Air Handling 2 1/1/0
In this course the dynamics of handling fluid masses of air will be studied. The focus will be on moving and replacing air

at given velocities, quantities, and temperatures.
Prerequisite(s): None

HEAT2218 Gas Heating 2 1/1/0
This course covers gas heating units, primarily furnaces. Emphasis is placed on understanding the operating systems and their sequence that exist within the furnace: mechanical, electrical, and combustion. Diagnosis and repair of malfunctioning furnaces is a significant portion of this course.
Prerequisite(s): CONE1102, HEAT1104

HEAT2220 Oil Heating 2 1/1/0
This course covers the use of oil as a means used to heat various mediums, air, water, etc. Prerequisite(s): CONE1102, PLBG1128

HEAT2222 Wire Feed Welding 1 0/1/0
This course will focus on 120-volt wire-feed welders. These welders are typically used in the HVAC industry in commercial HVAC installations, for minor fastening of various metals. Students will learn to weld both light and heavy gauge metals, light angle iron, and some galvanized materials. Prerequisite(s): None

HIST1110 Western Civilization: Ancient-1400 3 3/0/0
Meets MNTC Goal Areas 5 and 8. A discussion of the political, economic, cultural and social factors which have shaped the history of the Western world. Topics include: Ancient Civilization, the Hebrews, the Greeks, the Romans, Feudalism and Monorialism. Prerequisite(s): None

HIST1111 Western Civilization:1400-1600 3 3/0/0
Meets MNTC Goal Areas 5 and 8. A discussion of political, economic, cultural, and social factors which have shaped the history of the Western world. Topics include: The Renaissance, the rise of capitalism, the Reformation, the emergence of nation states and the Age of Absolutism. Prerequisite(s): None

HIST1112 Western Civilization: 1600-1800 3 3/0/0
Meets MNTC Goal Areas 5 and 8. A discussion of the political, economic, cultural and social factors which have shaped the history of the Western world. Topics include: The English Revolution, The Intellectual Revolution, The French Revolution and The Industrial Revolution. Prerequisite(s): None

HIST1113 Western Civilization: 20th Century 3 3/0/0
Meets MNTC Goal Areas 5 and 8. A discussion of the political, economic, cultural and social factors which have shaped the history of the Western world. Topics include: Marxism, The Industrial Revolution, The Age of Progress, World War I, The Rise of Fascism, World War II and the Cold War. Prerequisite(s): None

HIST1114 Europe: 1939-Present 3 3/0/0
Meets MNTC Goal Areas 5 and 8. History 1114 is the final course in the Western Civilization sequence. It is mainly concerned with the Holocaust, the postwar divisions of Europe, the Cold War, the rise of the Common Market and the European Union, decolonization and Europe's loss of empire and the collapse of Communist East Europe in the late 1980's. This course is most likely to be of value to those who have little background in modern European history. Prerequisite(s): None

HIST2211 American History Colonial Period 3 3/0/0
Meets MNTC Goal Areas 5 and 7. History 2211 is the first course in an American History sequence. The course content is essentially the colonial period in American history,

including European and West Indian Background, the rise of colonial "regions" in English North America, the clash of three cultures and races, the maturing of the English colonies and movement toward the Revolution. This course is most likely to be of value to those who have little background in colonial American history. Prerequisite(s): None

HIST2212 American History 19th Century 3 3/0/0
Meets MNTC Goal Areas 5 and 7. History 2212 is the second course in an American History sequence, and the course content is America's 19th century. "19th Century" is defined as the 1780's to 1877. Consideration is given to the Constitution of 1787, western expansion, the second war for independence, the slavery controversy, the Civil War and reconstruction. This course is most likely to be of value to those who have little background in America's 19th century. Prerequisite(s): None

HIST2213 American History: 20th Century 3 3/0/0
Meets MNTC Goal Areas 5 and 7. The course discusses the trends of American history from 1900 to the present. It will consider in some detail the dynamic roles played by class, race, gender and ethnicity in the making of modern American society. The class will also study the ways in which power has historically been allocated in the U.S., analyzing why power has concentrated in the hands of certain social groups and how other groups have challenged these relationships and sought to change them. As the semester progresses, we will focus as well on the growing role of the United States in the international community, paying particular attention to America's emergence as a global power in the 20th century. Prerequisite(s): None

HITM1150 Intro Health Info Science3 3/0/0
This course is a study of the historical development of the health record and the health information profession. This course encompasses the generation, format and content of the health record as the basis of patient information systems. The student is given an opportunity to learn about the role of the health information professional and how that role is integrated into the health care delivery system. Prerequisite(s): None

HITM1152 Health Information Systems 3 2/1/0
This course is a study of numbering systems, master patient index, filing systems, microfilming and retention considerations for health records. Basic concepts of information systems will be introduced including electronic data collection, storage, retrieval and other health information applications. Prerequisite(s): HITM1150

HITM1154 Medicolegal Aspects 2 2/0/0
This course is the application of legal principles, policies, regulations and standards for the control and use of health information. Emphasis is placed upon the proper release of patient information and legal procedures involved in court disclosure of health record information. Prerequisite(s): HITM1150

HITM1159 Clinical Affiliation I 2 0/0/2
This course provides the student with practical application of theories learned during the course of study. Under the pservision of a qualified health information professional, the student gains professional practice experience. Prerequisite(s): 11 HITM credits and 2.0 GPA

HITM2202 Cmptr Applic in Healthcare 3 2/1/0
This course develops the Health Information Technology student's knowledge of computer theory which allows the students to perform working applications in the areas of

system collection, storage, retrieval, and transcription.
Prerequisite(s): None

HITM2212 Intro to Coding ICD-9 2 1/1/0
This course covers an in depth study of ICD-9-CM (International Classification of Diseases, 9th revision, Clinical Modification) coding. Prerequisite(s): HLTH1106, BIOL2230

HITM2234 Coding III Advanced 3 2/1/0
This course is a continuation of the in-depth study of International Classification of Diseases (ICD-9-cm) coding and reimburse in the health care delivery system.
Prerequisite(s): HITM2212

HITM2242 Intro to Coding CPT 2 1/1/0
This course covers an in-depth study of the Physician's Current Procedural Terminology (CPT) coding system.
Prerequisite(s): HLTH1106

HITM2245 Coding IV CPT 3 3/0/0
This course is a continuation of the in-depth study of the Physician's Current Procedural Terminology (CPT) coding system. Prerequisite(s): HLTH1106, HITM 2242

HITM2250 Super Lead in Hlth 3 3/0/0
This course is a study of the basic principles of management, communication and working relationships in a health care setting. The role of the health record technician as a supervisor is discussed. Prerequisite(s): None

HITM2252 Quality Mgmt & Statistics3 2/1/0
This course covers the components of quality improvement systems, including quality assessment, utilization review, and risk management. This course is also a study of collecting, computing, analyzing, interpreting, and presenting numerical data relating to health care services. Prerequisite(s): HITM1152

HITM2259 Clinical Affiliation II 3 0/0/3
This course provides the student with practical application of the classroom theories and coursework. Under the supervision of a qualified clinical supervisor, the student gains professional practice experience. Prerequisite(s): 55 credits and 2.0 GPA

HITM2262 Reimbursement Systems2 2/0/0
This course is an introduction to the current reimbursement systems that are used in the health care industry both in the inpatient and outpatient settings. Prerequisite(s): HITM2212, HITM2242

HLTH1102 Health Career Exploration1 1/0/0
Many people are not aware of the many career opportunities in the health care field. This course will provide information about health care careers for the purpose of assisting the student in the career decision-making process. The health care system will be described and the characteristics and responsibilities of health care providers will be discussed.
Prerequisite(s): None

HLTH1104 Medical Law and Ethics 1 1/0/0
This course covers the fundamentals of bioethics, ethical codes, confidentiality, patient rights, humanistic health care, legal terminology, legal judgments, documents, and litigation. Students apply this knowledge through discussion of bioethical dilemmas, role playing, conferencing, and analysis of medicolegal situations. Prerequisite(s): None

HLTH1106 Medical Terminology 2 2/0/0
This course covers prefixes, suffixes, and roots used to compose medical terms. The student learns to spell,

pronounce, define, analyze, and formulate terminology related to body structure, disease, diagnosis, and treatment. Medical abbreviations are also included. Prerequisite(s): None

HLTH1111 Personal & Comm Hlth 3 3/0/0
A study of normal body functions and health practices. Designed to help the student maintain good physical, mental and social well-being. Topics include anatomy and physiology, emotional and mental health, drug use and abuse, plus nutrition and fitness. Course is designed to prepare the students to meet health responsibilities in the home and in the community, to prepare students to understand the aging process and to be more knowledgeable consumers. Topics of study include disease and treatment, sexuality and parenting, health limits and consumerism.
Prerequisite(s): None

HLTH1112 Home Health Aide 1 1/0/0
This course is only for students who have completed the 75 hour Nursing Assistant course and are on the Registry as a Nursing Assistant. It prepares the student for eligibility to take the State Registry Exam for NA/HHA. The emphasis is learning skills to meet the psycho-social physical needs of clients in home care settings. Prerequisite(s): HLTH1115

HLTH1115 Nurs Assist LTC 3 1/2/0
This course is recommended for anyone seeking a position as a nursing assistant in a nursing home or hospital. It is approved by the MN Dept. of Health and prepares the student for eligibility to take the State Registry Exam for Nursing Assistant. The emphasis is on learning skills to meet the psychology and physical needs of geriatric clients in long term care settings. Prerequisite(s): None

HLTH1120 Med Administration for Unlicensed Personnel 3 3/0/0
This course includes lecture establishing a knowledge base for medication administration and practice techniques intended to assist the aide in administering medications properly, safely, and effectively. Prerequisite(s): None

HLTH1121 Nursing Assistant-Home Health Aide 4 3/1/0
This course provides training for paraprofessionals who want to work as a nursing assistant/home health aide in a home setting or long term care facility. It prepares students for eligibility to take the State Registry Exam for Nurse Assistant/Home Health Aide and approved by the MN Dept. of Health. It also meets the prerequisite requirements for the Practical Nursing Program. Prerequisite(s): None

HLTH1160 Medication Administration for Correctional Officers 1 1/0/0
This course is designed for people who are hired to work in a jail setting, who are seeking employment in law enforcement, or other criminal justice careers. This course provides a knowledge base for medication administration. Emphasis is placed administering medications properly, safely, and effectively. Prerequisite(s): None

HLTH2002 Basic Pharmacology 2 2/0/0
This course introduces the student to basic pharmacological concepts, drug legislation, and drug categories. Emphasis is placed on commonly used drugs and their effects on body systems. Drug reference utilization is included.
Prerequisite(s): Recommended: GSMS1104, HLTH1106

HLTH2208 Pathophysiology 3 3/0/0
This course presents information related to pathophysiology of various body systems. The nature, cause, diagnosis, and treatment of common disease conditions will be emphasized.
Prerequisite(s): GSMS1104

HLTH2212 Social Seminar Drug Education 3 3/0/0
A course designed to cover the use, abuse, and dependency of legal and illicit drugs. Included are the physical and psychological effects and the problems related to drug use. Guest lecturers, small discussions, videos, student presentations covering topics related to all forms of drugs and drug use including intervention and available sources to help deal with drug abuse. Prerequisite(s): None

HLTH2214 Emergency Responder 3 3/0/0
The First-Responder level course covers regular and more advanced first-aid practices and procedures including extrication and transportation, professional level CPR, oxygen administration, long bone splinting, blood pressure monitoring, emergency childbirth, patient assessment, backboarding, and stress management. Prerequisite(s): None

HONS1100 Introduction to Honors 3 3/0/0
Meets MNTC Goal Area 5. This course is intended to be taken by students within the Honors Program, and is intended to be taken during the first semester within the Honors Program. The course looks at knowledge; including the origins, nature, limits, and history of knowledge. Knowledge of political systems will also be examined, with an emphasis upon the connections between governments and learning within given societies. The realm of knowledge within academia will also be addressed, with an emphasis upon debates over what curriculum should be taught in American classrooms. Prerequisite(s): Must be a member of the Honors Program in order to register for this course

HRES1122 Intro to Human Resources 3 3/0/0
This course covers an introduction to the basic principles of personnel functions and services. It provides background and understanding for further personnel courses in the Human Resources program. Prerequisite(s): None

HRES1126 Employee Processes 3 3/0/0
This course covers basic knowledge of the factors to be considered and the strategies used in the employment process. This includes job analysis, job descriptions, postings, employment ads, and interviewing. Prerequisite(s): None

HRES1130 Benefits Administration 3 3/0/0
This course covers basic knowledge and information about the various types of benefits that are typically offered by employers for their employees. Prerequisite(s): None

HRES1134 Training & Development 3 3/0/0
This course covers basic information about the characteristics of effective orientation programs and the scope of organizations' training and continuing development programs in building an effective work force. Prerequisite(s): None

HRES2204 Policy Administration 3 3/0/0
This course covers basic information and understanding of the need for human resources policies in an organization, types of policies, the process of policy formulation, and how policies are used. Prerequisite(s): None

HRES2212 Wage/Salary Administration 3 3/0/0
This course covers basic knowledge and understanding of employee compensation and related federal laws. Prerequisite(s): None

HRES2224 Employee/Labor Relations 3 3/0/0

This course covers basic information about the history of labor unions, current labor laws, the current role of labor unions, workers' compensation laws, and the rights of employees. Prerequisite(s): None

HRES2242 HR Internship 4 0/0/4
This course is designed to provide the student with a purposeful occupational experience in the Human Resources 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 of internship is equal to 48 hours of internship. Prerequisite(s): Advisor approval

HRES2244 HR Internship 2-3
This course is designed to provide the student with a purposeful occupational experience in the Human Resources 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 of internship is equal to 45 hours of internship. Prerequisite(s): Advisor approval

HRES2252 HR Competency and Portfolio Evaluation 2 1/1/0
This course reviews and reinforces the principles covered in the human resource program through the development of a comprehensive student portfolio and simulated activities related to program outcomes. The course also develops knowledge of career processes and the skills needed in conducting an effective job search. Prerequisite(s): Advisor approval

HUM1101 Intro to Humanities 3 3/0/0
Meets MNTC Goal Areas 2 and 6. This course serves as a general introduction to the role that humanities-the Arts, Literature, and Philosophy-play in shaping humanity's conception of itself and society. This course serves to expand the student's knowledge of the human condition and human cultures, especially the values expressed in works of human imagination and thought. This course also covers thinking skills by developing thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Prerequisite(s): None

HUM1105 Religion in the Humanities 3 3/0/0
Meets MNTC Goal Areas 6 and 8. This course is an exploration and study of religious expression and experience as well as an introduction to the world's major religions. The focus of the course will be on human expression of religious belief and philosophy in literature, film, music, and art, and will cover a variety of world religions, including Buddhism, Hinduism, Islam, Judaism, and Christianity. Throughout the course, students will explore diversity and human religious expression as a way of enhancing their global perspective. Prerequisite(s): None

HUM1110 Native American Culture 3 3/0/0
Meets MNTC Goal Areas 2, 6, and 7. This course is an interdisciplinary study of the social and cultural life of Native Americans, primarily the Plains Indians. Students consider traditional and contemporary expressions of native peoples as well as the history from which these expressions spring especially the impact that contact with European peoples had, and continues to have, on Native American ways of life. Prerequisite(s): None

HUM1120 Culture of Italy I 3 3/0/0
Meets MNTC Goal Areas 6 and 8. This multi-discipline course will introduce students to a close study of the art, drama, and music of Italy. Students will develop an

appreciation of the Italian culture and an understanding of the integration of the arts within the culture. Upon completion of HUM 1120, students will be eligible for HUM 1121-SSCulture of Italy II. Prerequisite(s): None

HUM1121 Culture of Italy II 2 2/0/0
Meets MNTC Goal Areas 6 and 8. This course is taken in conjunction with HUM 1120-Culture of Italy I and includes travel abroad to Italy. The content of this course aligns with curriculum materials studied in the prerequisite course of HUM 1120-Culture of Italy I and will serve as a reinforcement on the Italian culture and an understanding of the integration of the arts within the culture. Prerequisite(s): HUM1120

HUM1132 Women in the Humanities 3 3/0/0
Meets MNTC Goal Areas 6 and 7. A study of the contributions of women in the humanities as writers, artists, and social reformers with emphasis on the 20th century women. The course will incorporate individual studies of Quaker women, frontier women, African-American women, and Native-American women. Prerequisite(s): None

HUM1134 Global Perspectives for Women 3 3/0/0
Meets MNTC Goal Areas 6 and 8. A multi-disciplinary study designed to enhance international perspective on women in the humanities with emphasis on 21st-century women's cultural contributions as composers, artists and social reformers. The course will incorporate studies on women of China, Latin America and Europe. Meets three hours per week. Prerequisite(s): None

HUM2210 The Study of Film 3 3/0/0
Meets MNTC Goal Areas 2 and 6. This introductory course is designed to offer students an overview of the film genre with a concentration on the elements of film: shot, angle, lighting, movement, proxemics, and editing. Students will study a variety of contemporary films including examples of realism, classicism, and formalism toward an understanding of the inner dynamics of films and the language systems they use. Students will engage in film criticism and present analytical movie reviews. Prerequisite(s): ENGL1101

HUM2230 World Cinema 3 3/0/0
Meets MNTC Goal Areas 6 and 8. Global Cinema will introduce students to films from non-English speaking countries around the globe. The course will study stories and societies through cinema, readings, and lecture. Students will consider their own "worldview" while they screen films, and analyze multiple themes and ideas as a means of enriching their global perspective. Prerequisite(s): None

HUM2236 Technology in the Humanities 3 3/0/0
Meets MNTC Goal Areas 2, 6 and 8. Developments in the arts, architecture, science, philosophy, education and studies in human interaction are often provoked by changes in technology. Early changes in military technology made it possible for civilizations to take charge of various places on the world's stage. However, over time, changes in how the world was understood, motivated by general advances in global exploration, astronomy and other sciences, as well as specific inventions such as moveable type, proved even more instrumental in driving people to new and different understandings of what it means to be human. This course explores how technology impacts developments in a culture's world view and tries to anticipate how future changes in technology might alter the course of otherwise established ways of life. Prerequisite(s): None

HUM2281 Culture of the British Isles 3 3/0/0
Meets MNTC Goal Areas 6 and 8. This course will focus on the evolving culture of the British Isles during selected historical periods up to the present time. A study of a variety of literature, artwork, and music from England, Ireland and

Scotland will provide a foundation for the accompanying field experience. Taken together, these cultural elements provide a basis for understanding the diverse population of the British Isles. Prerequisite(s): None

HUM2291 Field Experience: Europe 2 0/2/0
Meets MNTC Goal Areas 6 and 8. A travel abroad field trip taken in conjunction with specific content based courses involves visits to sites discussed in the classroom. The courses include 40 hours of scheduled academic activities in places such as London, Paris, or other locations as determined by the instructor. Prerequisite(s): None

HUM2292 Field Experience: Europe 2 0/2/0
Meets MNTC Goal Areas 6 and 8. A travel abroad field trip taken in conjunction with specific content based courses involves visits to sites discussed in the classroom. The courses include 40 hours of scheduled academic activities in places such as London, Paris or other locations as determined by the instructor. Prerequisite(s): None

HUM2500 Honors Colloquy 1-3
Meets MNTC Goal Areas 6 and 7. The content of the course, designed for honors students, will vary from semester to semester. The topic will often be tied to Phi Theta Kappa's Honor's Topic. The course may be repeated for credit with a change in subtitle. Prerequisite(s): This course is only available to members of the Honors Program

HVAC1102 Duct Fitting Construction 3 1/2/0
Standard sheet metal fittings will be constructed in this class. Familiarity with sheet metal shop equipment and various tools will be gained through the layout and construction of sheet metal projects. All fittings in this class will be found in standard duct applications. Prerequisite(s): None

HVAC1104 HVAC Electrical Controls 3 1/2/0
This course covers the wiring of typical heating and cooling circuits, along with hook-up and installation of air conditioning. Prerequisite(s): None

HVAC1128 HVAC Design & Installation 5 2/3/0
This course covers: 1: an overview of various heating controls and appliances. 2: blueprints as applied to estimating heating and cooling loads. 3: gas piping as installed in residential and light commercial jobs. 4: safe HVAC practices. 5: various venting codes and requirements. 6: sizing of furnaces, ductwork and piping. Prerequisite(s): None

HVAC2202 Air Handling 2 1/1/0
This course studies the handling of masses of air, with attention paid to moving and replacing air at given velocities, quantities, temperatures, and humidity. Additional attention to friction loss in ductwork, and the calculation of it, will involve various design applications and actual lab layout. Prerequisite(s): HVAC1128

HVAC2204 Adv Duct Fitting Const 3 1/2/0
This course deals with standard transitional sheet metal fittings usually found in ductwork or on commercial roofing projects. The triangulation method is used to create fittings for which exit configurations differ from entry configurations. Prerequisite(s): HEAT1102

HVAC2212 Hot Water Heating 3 2/1/0
This course covers both hot water baseboard and in-floor heating, with emphasis on calculations involved in hydronic heating. Prerequisite(s): CONE1102, HVAC1128

HVAC2250 HVAC Applications 1 0/1/0

This course will involve as much interaction with the community as is possible, working with customers who want their air conditioners picked up and cleaned and adjusted. Students will also be hooking up split-system air conditioners in the lab. Prerequisite(s): REFR1110, REFR1112, HVAC1104

HVAC2254 HVAC Interrelated Topics1 1/0/0
This course will add to the student's electrical knowledge regarding circuits and schematics. This course should be taken along with CONE102. Prerequisite(s): None

HVAC2260 Refrigerant Certification 1 1/0/0
This course covers the information necessary to take the Environmental Protection Agency's refrigerant certification test. Prerequisite(s): Either: Enrollment in the HVAC program at MSCCTC or employment in the HVAC industry

HVAC2290 Internship 1 0/0/1
This course will add to the student's electrical knowledge regarding circuits and schematics. This course should be taken along with Cone 102. Prerequisite(s): None

IMMA1110 Intro Power & Mech Sys 3 1/2/0
This course will provide an overview of the design, operation and maintenance principles of basic mechanical system components. The terminology, theory, application and construction of mechanical components dealing with power transfer found within the typical factory will be discussed. The course is designed to provide an understanding of the basic physics principles that govern mechanical power transmission through the use of belt, chain and gear drives, clutch and braking mechanisms, coupling devices, linear actuators and bearings. Prerequisite(s): None

IMMA1112 Mech Blueprint Reading 2 2/0/0
This course will teach the fundamentals of blueprint reading and will include the interpretation of geometric construction, multi-view projection, dimensioning, auxiliary and sectional views. The course will also include the identification of drafting symbols and conventional methods of presentation. Prerequisite(s): None

IMMA2210 Special Topics-Maint. 3 3/0/0
This course provides participants with the learning opportunities to explore and/or practice specific areas of interest related to Industrial Maintenance technologies and supervision. Special topic areas to be selected fall under three broad categories of: (1) Industrial Maintenance Processes and Design Technologies, (2) Systems and Components for Industrial Automation, and (3) Management and Productivity Improvement. Prerequisite(s): Approval of topics selected by the participant

INTD1104 Systems Administration 3 2/1/0
System Administration covers the setup and administration of information systems. Particular emphasis is placed on web server configuration, modification, and security issues. Taught using the UNIX operating system, students will also learn related network functions. Prerequisite(s): CPTR1104

INTD1108 HTML 3 2/1/0
Students will learn the basics of creating web pages using up-to-date techniques with HTML, CSS and XHTML. In this hands on course will learn to create standards based web pages that are cross browser compliant. Students will learn to make their web sites available on the web by uploading pages to a web server. Prerequisite(s): None

INTD1110 Intro to Web Programming 3 2/1/0

This course will cover the basics of how to create and access HTML form-data and dynamically create web pages. The course provides an overview of the web-programming languages and the use of databases. Prerequisite(s): INTD1108

INTD1112 Web Graphic Design 3 2/1/0
Students will utilize graphic design and information flow concepts in creating web site graphics. Topics will include color palettes, color theory, site design and navigation concepts, composition, visual communications and flow logic. The students will explore current and upcoming web based graphic techniques. Legal implications, including copyright and fair usage, associate with web development will be addressed. This course will be taught using Apple Macintosh and Windows. Prerequisite(s): None

INTD1116 Web Graphic Creation 3 2/1/0
Students will develop fundamental skills in developing web graphic images. The course will concentrate on the design of graphics as it pertains to the delivery over the internet. Prerequisite(s): None

INTD1120 Internet Business Fundamentals 1 1/0/0
This course will focus on the basics of working effectively with the Internet in a business environment. Students will learn about Internet security, Internet legal issues, the fundamentals of e-commerce and the basics of Web Marketing. Prerequisite(s): None

INTD1122 Databases on the Server4 2/2/0
This course is an introduction to server based database systems. It introduces the students to the following topics: Relational Database Design, Administering Enterprise Level Databases Systems, SQL, and XML. This class is designed to be taught on an enterprise level database system such as Microsoft SQL Server, Oracle or MySQL. Microsoft Access should not be used except to demonstrate the differences in dialects of SQL. Prerequisite(s): None

INTD1124 Cascading Style Sheets 3 2/1/0
This course will focus on the use of Cascading Style Sheets in the creation of Web pages. Students will learn how to create and utilize Cascading Style Sheets to provide sophisticated page layout and design for Web pages and Web sites. Students will learn how CSS helps ensure consistency across web sites and helps simplify the complex task of Web site maintenance. Prerequisite(s): INTD1108

INTD2206 XML 3 2/1/0
This course will cover an overview of XML's capabilities, terminology, and technologies. Topics will include a comparison of XML with HTML and SGML. Emphasis will be placed on designing, building, and using XML's extensible characteristics. XML code will be generated using text editors and XML editors. A review of the current XML standards, trends and applications will be included. Prerequisite(s): None

INTD2208 JavaScript/DHTML 4 2/2/0
This course will provide an introduction to the JavaScript scripting language and those technologies commonly referred to as Dynamic HTML. Particular emphasis will be placed on browser compatibility and security. Prerequisite(s): INTD1108

INTD2214 Multimedia Web Design 4 2/2/0
This course teaches how to design and deliver cross-platform, low-bandwidth animations, presentations, and Web applications using Macromedia Flash. Students will learn the basics of Actionscript, and will create animations, animated buttons, drop-down menus, a Flash game,

preloaders and interactive Web sites. Prerequisite(s):
None

INTD2220 Advanced Web Programming 4 2/2/0
In this course the student will learn and practice programming skills that are fundamental to creating dynamic e-commerce sites. This will include database access, tracking users, use of XML and Deploying Web Applications. Prerequisite(s):
INTD1110

INTD2230 Emerg Tech-Resrch & Feasibility 1
0/1/0
The course will cover use of electronic research and require the student to investigate emerging web related technologies and prepare a research proposal. After instructor approval the student will research the selected topic using web and trade journals as resources. A series of web pages will be prepared that provides a technical discussion of the topic, examples of successful implementations, links to technology resources, and feasibility guidelines a prospective business could use to evaluate the possible implementation of the technology. Prerequisite(s): None

INTD2232 E-Commerce Implementation 3 2/1/0
This course covers standards, technologies and practices for both business-to-business and business-to-consumer e-commerce models. Students will learn the concepts involved with designing and implementing commerce-driven Web sites. Prerequisite(s): INTD1108, INTD1110, INTD2220

INTD2234 Adv Web Site Project 3 2/1/0
In this course, students will plan, design and create a professional portfolio using web technologies. The purpose of the portfolio is to showcase the student's accomplishments in the student's major field and provide the student with a concrete representation of their skills and abilities. Prerequisite(s): Student must have successfully completed a majority of the courses required in their program

INTD2242 Web Database Programming 2
1/1/0
This course is an overview of current uses of database on the web. Students will learn about the various tools currently available for implementing a web database. Students will design and create web database publishing projects. Prerequisite(s): INTD1108

INTD2244 PHP Development 3 2/1/0
Students will learn how to develop dynamic web sites using PHP. Topics covered will include basic syntax, deploying PHP web pages, and database connections. Prerequisite(s): None

INTD2248 Perl Programming 3 2/1/0
This course will cover an introduction to the Practical Extraction and Report Language (PERL). PERL programming will be taught with an emphasis on programming conventions/structure, cross-platform porting issues, Unix shell manipulation and Common Gateway Interface (CGI) implementation. System security, in respect to PERL usage, will be addressed. This course will be taught using Unix, Apple Macintosh, and Windows. Prerequisite(s): INTD1108

INTD2250 Interactive Media Internship 3
0/0/3
Students will arrange an internship with a employer, and their instructor, to work in a web related area or project. Students will develop a work plan with specific goals and outcomes. Internships require 46 work hours for each credit. Prerequisite(s): None

JOUR1131 Mass Communication 3 3/0/0
Meets MNTC Goal Area 9. This course provides an introductory overview of the rapidly growing world of mass communications, with an emphasis on the U.S., including newspapers, radio, television, film, books, magazines, advertising, public relations, and new media technology. The concept of social responsibility will be examined, along with an overview of ethical, social, economic and political issues. Prerequisite(s): None

JOUR1132 News Writing 3 3/0/0
This elective course introduces students to writing for the media through critical thinking, decision making, writing and reporting in a real-world context. Course work will enable students to evaluate and produce informative and persuasive media writing, with emphasis on the organization, structure and style demanded by various media. Prerequisite(s): None

JOUR1141 Student Newspaper 1 1/0/0
Students in this elective course will gain hands-on experience in the writing, reporting, editing, designing, laying out pages, and/or working with advertisers. Active involvement in the production of the student newspaper THE SPARTAN is an integral part of this course. Prerequisite(s): None

JOUR1151 Newspaper Photography1 1/0/0
Students in this elective course will gain hands-on experience in photo-journalism, designing, laying out pages, and/or working with advertisers. Active involvement in the production of the student newspaper THE SPARTAN is an integral part of this course. Prerequisite(s): None

JOUR2100 Mass Media Internship1-2
Students will gain hands-on experience working as an intern in an area mass media outlet. Internship may include, but is not limited to working with newspapers, radio or television stations, including PEG Access, or web-based media. Experience will vary depending on location of internship. Prerequisite(s): JOUR1131 or consent of instructor

MANI1104 Preclinic Introduction 3 1/2/0
This course provides an introduction to skin and nail disorders, professional image, Minnesota laws and rules, safety and sanitation, anatomy, electricity and light therapy, chemistry and salon management. Prerequisite(s): None

MANI1110 Preclinic Nail Care 3 1/2/0
This course provides students with the opportunity to develop the required speed and confidence necessary for entry-level manicuring and pedicuring skills. Students will perform manicures and pedicures on each other and on clients under the supervision of an instructor. This course also covers a variety of artificial nails and the safety precautions that accompany them. Prerequisite(s): None

MANI1134 Nail Clinic/License Prep 3 0/3/0
This course prepares students for their written examinations and skill certification. Prerequisite(s): None

MANI1146 Manicurist Clinic I 3 0/3/0
This course provides students with an opportunity to develop the practical skills necessary for entry level salon work. Prerequisite(s): None

MATH0052 Foundations of Math 3 3/0/0
Introduction to the language of mathematics. Basic review of the mathematical operations as they relate to the real number system. Basic review of manipulative skills and problem solving including geometrical and statistical. Prerequisite(s): Placement by assessment

MATH0090 Introductory Algebra 3 3/0/0
This course is an introduction to algebra. It is especially recommended for those students who have little or no algebra experience. Topics include algebraic expressions, solving linear equations, solving linear inequalities, polynomial operations, factoring polynomials, and solving polynomial equations. Prerequisite(s): MATH0052 or appropriate Math assessment test score

MATH1020 Intermediate Algebra 3 3/0/0
Topics include systems of equations and systems of inequalities; rational expressions, equations, and functions; radicals and complex numbers; and quadratic equations and inequalities. Prerequisite(s): MATH0090 or placement test

MATH1100 World of Math 3 3/0/0
Meets MNTC Goal Areas 2 and 4. This liberal arts mathematics course provides an introduction to several areas and concepts in mathematics including problem solving, numerical sequences, methods of counting, probability, logic, and statistics. The course is appropriate for prospective elementary teachers, as well as general education for those who do not intend to pursue the regular college mathematics courses, except Math 2200. Prerequisite(s): MATH0090 or by placement test

MATH1102 Finite Math 3 3/0/0
Meets MNTC Goal Areas 2 and 4. This course is an elementary introduction to some of the mathematical techniques which have applications in the management, health sciences, and other applied technologies. Topics covered include systems of linear equations and inequalities, matrices, linear programming, mathematics of finance, and elementary probability and statistics. Prerequisite(s): MATH1020 or an appropriate placement test score

MATH1114 College Algebra 4 4/0/0
Meets MNTC Goal Areas 2 and 4. Rational and polynomial functions, exponential and logarithmic functions, inverse functions, quadratic equations, inequalities, matrices, progressions, complex numbers, theory of equations and variations, and linear equations in one, two and three unknowns. Prerequisite(s): MATH1020 or by placement test

MATH1115 Functions/Trigonometry 4 4/0/0
Meets MNTC Goal Areas 2 and 4. Preliminary concepts, conics, right triangle trigonometry, radian measure and circular functions, identities, equations, inverse functions, oblique triangles, complex numbers and polar coordinates. Prerequisite(s): MATH1114 or by placement test

MATH1120 Applied Calc/Linear Alg 4 4/0/0
Meets MNTC Goal Areas 2 and 4. Introduction to exponential and logarithmic functions, matrices, and differential and integral calculus with an emphasis on application in the areas of business and the life and social sciences. Prerequisite(s): MATH1020 or by placement test

MATH1134 Analytical Geometry and Calculus I 5 5/0/0
Meets MNTC Goal Areas 2 and 4. Limits and continuity, derivatives, definite and indefinite integrals of algebraic and trigonometric functions. The applications of the derivative and definite integral. Prerequisite(s): MATH1115 or by placement test

MATH1135 Analytical Geometry and Calculus II 5 5/0/0
Meets MNTC Goal Areas 2 and 4. Logarithmic and exponential functions, trigonometric and hyperbolic functions and their inverses. Techniques of integration, polar coordinates, conic sections, indeterminate forms, improper integrals, and infinite series. Prerequisite(s): MATH1134

MATH1207 Concepts of Applied Statistics 3 3/0/0
Meets MNTC Goal Areas 2 and 4. This course will investigate descriptive and inferential statistical concepts including measures of central tendency, measures of variation, measures of position, frequency tables, statistical graphs, probability distributions, one and two sample hypothesis tests, ANOVA, confidence intervals, regression, and correlation. Prerequisite(s): MATH1020 or by placement test

MATH1213 Intro to Statistics 4 4/0/0
Meets MNTC Goal Areas 2 and 4. This course is designed to be an introduction to statistics. Topics include data summary, frequency distributions, plots, graphs, measures of central tendency, variation, probabilities, probability distributions, and confidence intervals. Hypothesis testing of means, proportions, and variances will be conducted using the z-test, t-test, chisquare-test, f-test, and ANOVA. A study of nonparametric statistics, sampling and simulation may also be included. Prerequisite(s): MATH1020 or by placement test

MATH2200 Principles of Arithmetic 3 3/0/0
Meets MNTC Goal Areas 2 and 4. Arithmetic as a system of thought; number and sets, basic number operations and their underlying formal logic, number structure, basic geometry concepts. A "mathematics" rather than a "methods" course. Recommended for all elementary education majors. Prerequisite(s): MATH1100, MATH1114 or by placement test

MATH2231 Analytical Geometry and Calculus III 4 4/0/0
Meets MNTC Goal Areas 2 and 4. Vectors in the plane and space, differentiation and integration of vector-valued functions, and partial differentiation. Multiple integrals, including line and surface, in rectangular, polar, cylindrical, spherical and other systems. Stoke's Theorem, Greens Theorem, and the Divergence Theorem. Prerequisite(s): MATH1135

MATH2257 Linear Algebra 3 3/0/0
Meets MNTC Goal Areas 2 and 4. Systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues and eigenvectors. Prerequisite(s): MATH1134

MATH2259 Differential Equations 4 4/0/0
Meets MNTC Goal Areas 2 and 4. This course includes first and second order differential equations with applications in physics, electrical engineering, and chemistry. It also includes Laplace transforms, matrices, series solutions, and systems of differential equations. Prerequisite(s): MATH2231

MCDD1102 Mech Engineering Drawing I 3 1/2/0
The objective of this course is to develop the students use and knowledge of machine drafting, lettering, line identity and application, orthographic projection, dimensioning practices, section and auxiliary drawings. Prerequisite(s): None

MCDD1106 Mech Engineering Drawing II 4 0/4/0
The objective of this course is to develop the students use and knowledge of pictorial drawings, sheet metal, pattern layout, and welding drawing. Mechanical fasteners will be identified. Prerequisite(s): MCDD1102

MCDD1120 Drafting Practices 2 2/0/0
The objective of this course is to develop the student knowledge of engineering change orders ECO-EON Non-Dimensioned drawings and tabulated drawings, engineering

communications, attitudes, workforce diversity, and finances.
Prerequisite(s): MCDD1106

MCDD1122 Geometric Dimensioning & Tolerancing
3 2/1/0

The objective of this course is to develop the students understanding and application of a self defined set of symbols, rules, definitions and conventions used to describe the size, form, orientation and location of part features.
Prerequisite(s): MCDD1102

MCDD1124 Mechanical Drafting Applications I 3
1/2/0

The objective of this course is for the student to develop a set of working drawings of an existing machine project. A genealogy chart, final and sub-assembly drawings, detail drawings, parts lists and part numbering system will be completed. Prerequisite(s): CADD1102, MCDD1102

MCDD2204 Mech Engineering Drawing III 4
1/3/0

The objective of this course is to explore advanced applications of mechanical drawing methods. The student will be introduced to, and construct drawings related to multiple manufacturing and engineering disciplines. Prerequisite(s): MCDD1106

MCDD2224 Manufacturing Process 2 2/0/0

The objective of this course is to develop the students understanding of material processing, casting, molding, forming, separating operations, assembling, finishing and automation. Prerequisite(s): None

MCDD2240 Machine Components & Mechanisms
3 1/2/0

The objective of this course is to develop the student understanding and interaction of ball and roller bearings, lubrication, clutches, brakes, and multiple gear types. The students investigate drive systems and construct mechanical drawings demonstrating their understanding of the systems.
Prerequisite(s): CADD2214, MCDD1106

MCDD2246 Tool Design 3 1/2/0

The objective of this course is to develop a basic understand of jig, fixtures, dies and their function in mass production.
Prerequisite(s): CADD2214, MCDD1106

MCDD2248 CNC Application 3 1/2/0

The objective of this course is to develop the students knowledge of basic programming using a 3 axis milling machine to produce simple parts from industrial wax.
Prerequisite(s): Pre/Corequisite: CADD1102

MCDD2252 Mechanical Drafting Applications II 4
1/3/0

The objective of this course is to develop the students knowledge of the processes involved in design development, critical path scheduling and just in time production concepts. Gearing, shafts, chains, belts, bearings, lubrication, and couplings are applied to student's Capstone project.
Prerequisite(s): CADD2214

MCDD2260 Mech CADD Dsgn & Detail Intern 3
0/0/3

The objective of this course is to develop and apply the students drafting skills in their desired career field. Projects and discussions are coordinated to relate to the students employment situation. Employment in an approved drafting occupation. Training verification and evaluation are required of each student. A maximum of 3 internship credits will apply toward graduation. Prerequisite(s): 32 Pre-approved credits

MCS2230 Educ & Multicultural America 3
3/0/0

Meets MNTC Goal Area 7. This course is designed to offer future educators a perspective on the enculturation and formal education of three subcultures within the larger United States society: African America, American Indian, and Latinos. Prerequisite(s): None

MCS2231 Field Experience 1 1/0/0

The field experience will be attached to MCS 2230, Education & Multicultural America, as a required credit for students. The goals and structure of the fieldwork will include reflection from the perspective of future educators. Students, in collaboration with faculty, will participate in a field experience at an educational setting with diverse audiences and age groups, dependent on the MSCTC student's teacher licensure or area of interest. Students may document their service learning fieldwork through their written lesson plans, their presentation, journal writing, discussions and logs. This experience will emphasize key theories in Education & Multicultural America. The nature of field experience necessitates that students be prepared to be off-campus and to participate outside of regular class hours (20-25 hours). Students may need transportation to field sites.
Prerequisite(s): Concurrent enrollment in MCS2230

METC1112 Manufacturing Processes4 2/2/0

This course will teach the fundamentals of traditional and non-traditional manufacturing processes including mass reducing, mass conserving, joining, material treatment, and surface treatment processes. Hands-on experiences in laboratories provide the class participants with basic skills in machining, welding, and wood processing technologies.
Prerequisite(s): None

METC1114 Engineering Drawings/CAD I 3
2/1/0

This course will teach the fundamentals of technical drawing including design processes, geometric construction, multi-view projection, dimensioning, and sectional views. Integral to this course is the use of Computer-Aided Drawing CAD in both 2D and 3D modes emphasizing visualization concepts.
Prerequisite(s): CPTR1104, MATH0090

METC1116 Engineering Drawings/CAD II 3
2/1/0

A continuation of METC1114. This course will teach the fundamentals of technical drawing including auxiliary views, screws, fasteners, gears, cams, geometric dimensioning and tolerancing, assembly and working drawings. Integral to this course is the use of Computer-Aided Drawing CAD in both 2D and 3D modes emphasizing visualization concepts.
Prerequisite(s): METC1114, CPTR1104

METC1118 Manufacturing Basics 1 1/0/0

This course will provide an overview of the secondary processes used within the world of manufacturing including forming, separating, assembly, finishing operations and manufacturing economics. Hands-on experiences in laboratories provide the class participants with basic skills in material handling and metal/wood separating and forming technologies. Prerequisite(s): None

METC1120 Blueprint Reading/Measure 1
1/0/0

This course will teach the fundamentals of blueprint reading and precision measurement. Emphasis is placed on understanding and applying the information available from manufacturing blueprints to the use of appropriate measurement tools. Prerequisite(s): None

METC1122 Intro Mechanical Sys 1 1/0/0

This course will provide an overview of the operation, maintenance, and repair of basic mechanical system components. The terminology, theory, application and construction of mechanical components found within the typical factory will be discussed. The course is designed to provide a better understanding of the basic physics principles that govern mechanical power transmission. Prerequisite(s): None

METC1124 Overview Fluid Power 1 1/0/0

This course will provide an overview of the operation, maintenance, and repair of hydraulic and pneumatic system components. The terminology, theory, application and construction of fluid power components found within the typical factory will be discussed. The course is designed to provide a better understanding of the basic physics principles that govern fluid power. Prerequisite(s): None

METC1126 Basic CNC Operations 1 1/0/0

This course will provide an overview of the basic concepts required in CNC programming and operations. The course will teach the fundamentals of Computer Numerical Controlled equipment, basic programming methods and interpretation of the machining codes used in the controllers of the machines that are used within the manufacturing plant. Prerequisite(s): None

METC1128 Applied CNC Operations1 0/1/0

This course will provide an overview of the basic applications of CNC programming and operations. The course will teach the operating fundamentals of Computer Numerical Controlled equipment, basic programming methods and interpretation of the machining codes used in the controllers of the machines that are used within the manufacturing plant. Prerequisite(s): METC1126

METC1130 Basic Elec Concepts 1 0/1/0

This course covers key electrical safety and test instrument concepts. Participants acquire foundational knowledge about electricity, circuit calculations, magnetism and power factors. Avoiding personal injury and equipment damage is emphasized. Students will learn to: evaluate series and parallel circuits using Ohm's Law, evaluate magnetic field paths in magnetic circuits, understand and evaluate power factors, use safe electrical practices, use test equipment, and recognize common electrical symbols. Prerequisite(s): None

METC1132 Overview PLCs 1 1/0/0

This course will provide an overview of the operation, function and programming of a PLC and its' system components. The terminology, theory, application and construction of a PLC and components found within the typical factory will be discussed. The course is designed to provide a better understanding of the PLC networks used in manufacturing. Prerequisite(s): None

METC1134 Applied Basic PLCs 1 0/1/0

This course will provide the participant the opportunity to perform the operations involved with the functions and programming of a PLC and its' system components. The application and construction of a PLC system and its' components found within the typical factory will be simulated. The course is designed to provide a better understanding of the PLC networks used in manufacturing. Prerequisite(s): METC1132

METC1140 Basic Robotic Prin 1 1/0/0

This class presents an introduction to the principles of robotics advancing to the types of power supplies and movement systems used in automated applications. Discussion of sensing systems and end-of-arm tooling and how these correlate with the controller unit is also done in this class. Emphasis is placed on PLCs as well as an

introduction to interfacing and vision systems used in robotics. Prerequisite(s): METC1124, METC1132

METC1152 Safety & Accident Prevent 3 3/0/0

This course is designed to explore the principles and practices of health and safety in the industrial environment. Topics covered include regulations of Environmental Protection Agency EPA, Occupational Safety and Health Act OSHA and MNOSHA, legal considerations, current legislation, product safety, hazard materials, infection control, and employee protection. Prerequisite(s): None

METC2202 Power Trans & Mech Sys3 2/1/0

This course covers the transfer of power and the related mechanical systems typically employed to accomplish power transfer. Topics covered will include, basic units of power measurements, HP / speed / torque calculations, control systems, bearings, belt & belt drives, gear & gear drives, chains & chain drives, adjustable speed drives, hydraulic drives, pneumatic drives, electric motors, internal combustion engines, clutches, couplings, u-joints, conveyor, and brakes. Prerequisite(s): MATH0090

METC2208 Basic Elec/Electronics 3 2/1/0

This course surveys the fundamentals of electricity and electronics including electrical / electronic components, AC/DC circuits, electronic devices and applications, basic electronic circuits, and electronic communication and data systems. Prerequisite(s): None

METC2210 Electro-Mech & Indus Cntrl 3 2/1/0

This course covers the electro-mechanical components, circuits and systems used to control and provide industrial automation. Components such as relays, timers, motors, switches, and valves will be covered. The course also covers both 3 phase and single phase industrial power distribution and how it is used in conjunction with industrial automation. Prerequisite(s): None

METC2216 CAM/CNC 3 2/1/0

This course will teach the fundamentals of Computer Aided Manufacturing CAM and its use with Computer Numerical Control CNC machines and Computer Aided Design CAD software. Participants will perform a series of hands-on activities where they will learn to take drawings developed with CAD software and generate programs that can be run on CNC machines. Participants will learn various methods of testing including program simulation. Prerequisite(s): METC1112, CADD1102, or similar engineering graphics and AutoCAD courses

METC2220 Hydraulic Systems 3 2/1/0

This course covers both hydraulic theory and application as it relates to components, circuits, and systems. Both mobile and industrial hydraulics will be covered comparing similarities and differences. Throughout the course students will confirm their circuit designs with mathematical calculations and then confirm their calculations by building and testing their circuits. Prerequisite(s): MATH0090

METC2222 Fluid Power Systems 3 2/1/0

This course teaches fundamental skills in hydraulic and pneumatic systems. Participants will perform hands-on experiments wherein they construct circuits that teach the operation of components and circuits as used in real world applications. At the completion of this course, participants will be able to install, start up, and operate basic systems. Prerequisite(s): CPTR1104, MATH0090

METC2224 Electricity & Electronics 4 2/2/0

This course surveys fundamentals of electricity and electronics including AC/DC circuits, electronic devices and

applications, basic electronic circuits, and electronic communication and data systems. Prerequisite(s): MATH0090, PHYS1105

METC2226 Jig & Fixture Dsgn for Mfg3 2/1/0
This course covers Jigs & Fixtures used in Manufacturing. This course is an entry level course. It introduces the student to the theory of jigs & fixtures as well as exposing the student to the application of jigs & fixtures. The course will be delivered through lecture, research, hands on demonstrations, assigned homework, and actual design of general jig & fixture solutions. Student will do design work using CAD. Prerequisite(s): Pre/Corequisite: CADD1102 or similar drafting course or by instructor approval

METC2228 Pneumatic Systems 3 2/1/0
This course covers both Pneumatic theory and application as it relates to components, circuits, and systems. Both mobile and industrial Pneumatics will be covered comparing similarities and differences. Throughout the course students will confirm their circuit designs with mathematical calculations and then confirm their calculations by building and testing their circuits. Prerequisite(s): MATH0090

METC2230 Setup Reduction: The SMED Sys 2 2/0/0
This course covers the fundamental information needed for implementing the Single-Minute Exchange of Die SMED to changeover setup reduction. Changeover is the processes of setting up a production line for a different process or product. Prerequisite(s): METC1112, MATH0090

METC2232 Mistake Proofing: The ZQC Sys 2 2/0/0
This course covers the fundamental information needed for implementing mistake-proofing approaches that prevent defects by monitoring processing conditions at the source and correcting errors that would cause defects. Prerequisite(s): METC1112, MATH0090

METC2234 Wrkplc Productivity & Organization 2 2/0/0
This course will teach productivity improvements through the analysis of principles and practices that make the physical workplace safer, cleaner, and more pleasant. Prerequisite(s): METC1112, MATH0090

METC2236 Quality Planning & Mgmt3 3/0/0
This is an introductory course which will cover approaches to maintenance that optimize equipment effectiveness, eliminate breakdowns, and promote autonomous operator maintenance through day-to-day activities involving the total workforce. Prerequisite(s): METC1112

METC2238 Production & Inventory Mgmt 2 2/0/0
This course will provide a basic understanding of production and inventory management including purchasing, inventory, production, and distribution processes. Upon completion of this course, the participant will be able to interact effectively within a materials management system. Prerequisite(s): CPTR1104, MATH0090

METC2242 Spec Topics Manufacturing 3 3/0/0
This course provides participants with the learning opportunities to explore and/or practice specific areas of interest related to manufacturing technologies and supervision. Special topic areas to be selected fall under three broad categories of: 1 Manufacturing Processes and Design Technologies, 2 Systems and Components for Industrial Automation, and 3 Management and Productivity Improvement. Prerequisite(s): Approval of topics selected by the participant

METC2252 Production/Operations Mgmt 3 3/0/0
The operations function produces the goods and/or services that the organization offers to the marketplace. This course covers the decision areas that contribute to operations effectiveness, including the areas of process design, quality, workplace design, and production/inventory management. Prerequisite(s): MATH0090, CPTR1104

METC2254 Quality Measurement & Control 3 2/1/0
This course will teach the fundamentals of quality measurement and control. Course includes precision measurement tools and techniques and statistical process control SPC. Included in the course is also an introduction to total quality management topics. Prerequisite(s): METC1112

METC2256 Programmable Logic Cntrl 4 2/2/0
This course covers Programmable Logic Controllers (PLC). The course is intended to be an entry level through intermediate level course. The course will provide a complete introduction to the topic of PLC's, the theory of PLC operation, application of PLC configurations, developing ladder diagrams, programming PLC using computer software, running PLC programs, editing and modifying existing programs, wiring and operating industrial components and feedback devices with PLC, creating customary documentation for PLC with CAD and word processor. Prerequisite(s): METC2210

METC2260 Project Management 3 3/0/0
This course will teach the fundamentals of project management. Major areas will be project initiation, tracking, reporting, and closure. At the completion of this course, participants will be able to apply their skills to the management of projects in different work environments. Prerequisite(s): None

METC2270 Manufacturing Internship3 0/0/3
This course provides participants with on-the-job opportunities to explore and/or practice specific areas of interest related to manufacturing technologies and supervision. Internship opportunities fall under three broad categories of: 1 Manufacturing Processes and Design Technologies, 2 Systems and Components for Industrial Automation, and 3 Management and Productivity Improvement. Prerequisite(s): Approval of plans developed by the participant

MKTG1100 Prin of Marketing 3 3/0/0
This course introduces students to the dynamic field of marketing. This course is a comprehensive study of the traditional marketing principles and concepts and their application to a changing business world. Prerequisite(s): None

MKTG1106 Principles of Sales 3 3/0/0
This course covers a fundamental sales approach that can be used as a foundation for future sales courses. The content covers steps used to plan a sales presentation and methods of determining and filling prospect needs or wants. Prerequisite(s): None

MKTG1110 Customer Service 3 3/0/0
Customer service can determine a company's success or failure. Customer service skills can determine an employee's success or failure. This course covers the skills necessary for an individual to build and maintain good relationships with internal and external customers and the role the customer service team plays in developing, evaluating, and improving customer service systems. Prerequisite(s): None

MKTG1112 Retailing 3 3/0/0

This course provides an overview of the concepts and skills needed to operate a successful retail operation. Topics include retailing terminology, current practices in merchandising, types of retail institutions, site election, inventory control, and pricing. Prerequisite(s): None

MKTG1116 Advertising 3 3/0/0
This course is intended to acquaint students with advertising media, budgets, selection, ad copy, and layout. Also, students gain an understanding of advertising campaigns, promotional events, and techniques. Prerequisite(s): None

MKTG1118 Telemarketing Techniques 3 3/0/0
This course provides a foundation in the professional use of the telephone for sales, marketing, and service. Locating business opportunities, developing telemarketing dialog, utilizing sales language/tempo, practicing delivery and listening skills, and closing and evaluating calls are covered in this course. Prerequisite(s): None

MKTG1120 Supervisory Leadership 3 3/0/0
The methods and techniques of leadership and supervision and their applications are emphasized in this course. The content covers such topics as delegation, motivation, training, orienting, evaluating, and effectively increasing productivity. Prerequisite(s): None

MKTG1128 Business Insights 1 0/1/0
Examination of the marketing industry from manufacturing to the final product is covered in this course. Students analyze the impact of current trends, the economy, and technology in the marketplace. Prerequisite(s): None

MKTG1130 Marketing Ethics 3 3/0/0
This course is designed to help the individual determine what constitutes ethical issues and to gain insight into how to cope with conflicts between your personal values and those of the organization in which you work. Prerequisite(s): None

MKTG1138 Leadership Development I 1 0/1/0
This course encourages the personal and professional growth of the student. Emphasis is placed on the development of skills in decision making, problem solving, communications, professionalism and leadership. Prerequisite(s): None

MKTG1140 Leadership Development II 1 0/1/0
This course covers the personal and professional growth of the student. Emphasis is placed on the usage of skills in decision making, problem solving, communications and leadership. Prerequisite(s): None

MKTG2200 Prin of Management 3 3/0/0
This course is designed to expose the student to a variety of concepts presented within the framework of the traditional functions of management. The various approaches to planning, decision making, organizing, motivation, leadership, communications, and controlling are explored. Prerequisite(s): None

MKTG2204 Applied Sales Techniques 3 2/1/0
This course provides opportunity for the student to apply the steps of a sales presentation by planning and performing sales presentations in role-playing situations. The student applies strategies in sales communications, customer oriented selling, and sales management. Prerequisite(s): MKTG1106

MKTG2206 Sales Management 3 2/1/0

This is an advanced management course that focuses on sales force planning, implementation, and control. This course covers the managerial topics of: sales planning, staffing, training, directing, as well as analyzing and evaluating the sales force. Prerequisite(s): MKTG1106

MKTG2222 Human Resource Mgmt 3 3/0/0
The purpose of this course is to acquaint the student with the importance of human resource management in contributing to the achievement of an organization's objectives. The content addresses techniques and legal aspects of recruiting, hiring, firing, promotion, documentation, evaluation, and other areas essential to the personnel function. Prerequisite(s): None

MKTG2230 Marketing Research 3 2/1/0
This course covers market research principles and procedures that are necessary for marketing professionals to be successful. Topics covered include survey methods and techniques, problem identification, data collection techniques, sample type and size, presentation of findings and using the internet as a source. Prerequisite(s): MKTG1100

MKTG2232 Marketing Management 3 2/1/0
This course provides an overview of the critical aspects of marketing management. Emphasis is placed on applying marketing principles and strategies through case analysis and the development of a marketing plan. Prerequisite(s): MKTG1100

MKTG2234 Computer Marketing Applic 3 1/2/0
This course expands the information learned in the Introduction to Microcomputers course. It challenges students to produce computer projects using spreadsheets, database, graphics, and word processing. The emphasis is on documents produced by marketing departments and marketing firms. The student plans, creates, prints, and evaluates projects. Prerequisite(s): CPTR1104

MKTG2236 Small Business Mgmt 3 3/0/0
This course provides a summary of many of the major issues faced by anyone starting a small business. Prerequisite(s): ACCT1012

MKTG2238 Leadership Development III 1 0/1/0
This course covers the personal and professional growth of the student. Emphasis is placed on the usage of skills in decision making, problem-solving, communication, and leadership. Prerequisite(s): None

MKTG2240 Leadership Development IV 1 0/1/0
This course focuses on the personal and professional growth of the student. Emphasis is placed on the usage of skills in decision making, problem solving, communications and leadership. Prerequisite(s): None

MKTG2242 Advertising Management 3 3/0/0
This course covers the creation and development of advertising in various media. Knowledge and understanding of this content are necessary for a student of marketing to successfully compete in today's competitive market. Prerequisite(s): MKTG1116

MKTG2290 Supervised Occup Exp I 3 0/0/3
For this course, projects, reports, and discussions are coordinated to relate to the student's employment situation. Employment in an approved wholesale/retail marketing occupation, training verification, and evaluation are required of each student. A maximum of 9 SOE credits will apply toward graduation. Prerequisite(s): 15 credits completed

MKTG2292 Supervised Occup Exp II 3 0/0/3
For this course, projects, reports, and discussions are coordinated to relate to the student's employment situation. Employment in an approved wholesale/retail marketing occupation, training verification, and evaluation are required of each student. A maximum of 9 SOE credits will apply toward graduation. Prerequisite(s): 15 credits completed

MKTG2298 Small Business Plan Development 2 1/1/0
This course covers the steps in preparing a business plan. Each student creates a business plan based on a personal business selection. Prerequisite(s): MKTG2236 recommended

MLT1110 Prin/Proc Phlebotomy 2 1/1/0
Course designed for Phlebotomy and Medical Laboratory Technician students. Competency required in the knowledge and performance of venipuncture, micro (capillary) and arterial blood, and other body fluid collection, handling and storage. Strict adherence to the safety techniques for pathogen is stressed. Also included is Point-of-Care (bedside) analysis and electrocardiography. Prerequisite(s): None

MLT1112 Clinical Phlebotomy 3 0/3/0
Provides clinical phlebotomy experience for the phlebotomy technician student in an affiliate hospital/clinic laboratory under the supervision of qualified technicians and technologists. Training in collection, processing and storage of blood and body fluid. Prerequisite(s): ZOO1126

MLT2217 Clin Hematology 3 0/3/0
Clinical experience at an affiliate hospital laboratory under the supervision of qualified laboratory personnel. Students perform tests on the cells in the blood and procedures for coagulation studies. Prerequisite(s): ZOO1122

MLT2218 Clin Urinalysis 1 0/1/0
Clinical experience in the performing of routine and special urinalysis and seminal fluid testing under the supervision of laboratory personnel. Also clinical experience in special chemistry testing including hormones vitamins, therapeutic drug monitoring and drugs of abuse with supervision. Prerequisite(s): ZOO1126, CHEM1104

MLT2219 Clin Chemistry/Sp Chem3 0/3/0
Clinical experience in the chemistry laboratory at affiliate hospital. Students learn to perform body chemistry methods on automated and semi-automated instruments under the supervision of qualified laboratory personnel. Prerequisite(s): CHEM1104

MLT2220 Clin Blood Bank 2 0/2/0
Clinical experience in blood bank department of affiliate hospital. Students perform typing and compatibility testing and other routine testing with supervision. Prerequisite(s): BIOL1125, ZOO1123

MLT2221 Clin Microbiology 3 0/3/0
Medical microbiology experience in bacterial identification methods with laboratory personnel supervision. Immunological and serological testing of body fluids also performed. Prerequisite(s): BIOL2266

MLT2228 Clin Parasit/Mycol 1 0/1/0
Clinical experience in the special area of fungi, yeast and parasite identification under the supervision of laboratory personnel. Prerequisite(s): BIOL2266

MLT2229 Phlebot/Review 1 0/1/0

Clinical experience for MLTs in phlebotomy techniques including blood specimen collection by venipuncture, capillary and arterial under supervision. Also collection, handling and storage of other body fluids. Review of all areas of the clinical laboratory. Review occurs during the scheduled period set aside and proctored by Education Coordinator to prepare students for the National certification exam following their clinical experience. Prerequisite(s): MLT1110

MLT2230 Clinical Applications 1 1/0/0
Didactic course offered the second year of the MLT curriculum consisting of new information and pertinent information not covered during the first year or didactic instruction or during the clinical experience. Includes use of case studies, new methods, correlation of test results to disease/disorders. Prerequisite(s): MLT technical courses

MRNT1103 Intro to Marine Tech 3 2/1/0
This course covers information on laws governing the use of public waterways as administered by both state and federal agencies as well as the National Marine Manufacturers Association regulations. Students will learn the history of marine systems along with the identification of each type. The course also covers the manufacturer's service and parts literature used in operation of marine businesses, emphasizing the service department. Prerequisite(s): None

MRNT1104 Drive System Theory 3 3/0/0
This course covers the operational theory of the stern mounted vertical drives & outboard gearcases. Gear ratios, upper housings, lower housings, inputs and outputs will be investigated. Common drive systems from outboard & stern drive are covered in this course. Identification, theory of disassembly, measurement, shimming, and assembly procedures will be outlined in this course. Failure analysis is emphasized during this course. Prerequisite(s): Pre/Corequisite: MRNT1103

MRNT1106 Drive System Service I 3 0/3/0
This course teaches the repair procedures for the common stern mounted vertical drive systems built by Outboard Marine, MerCruiser, and Volvo, and outboards built by Mercury Marine and OMC. Complete drive disassembly, measurement, analysis, shimming and rebuilding will be performed. Failure analysis of components will be covered in detail. Prerequisite(s): Pre/Corequisites: MRNT1103, MRNT1104

MRNT1108 Marine Hydraulics 3 2/1/0
This course covers the service of hydraulic systems used on stern drive and outboard motor applications. Power steering and power trim and tilt systems and service will be performed. System troubleshooting, as well as component service, will be performed. Prerequisite(s): TRNS1102, MRNT1103

MRNT1110 Transom & Mid Section Service 3 1/2/0
This course teaches the various methods used to couple the engine to the vertical drive on stern drive applications. On outboards this course covers the mid-sections. Removal and replacement, failure analysis, measurement, disassembly and assembly procedures are performed. Prerequisite(s): MRNT1103

MRNT1114 Intro to Boat Rigging 2 1/1/0
This course provides training in the procedures necessary to prepare new boats for showroom and/or customer delivery. Motor mounting, controls, instrumentation and accessories are discussed. Students will perform rigging and adjustment procedures on boats and trailers. Prerequisite(s): None

MRNT1120 Marine Starting and Charging Systems 3 2/1/0

This course teaches the service procedures necessary on marine products (2-cycle/4-cycle, inboard and outboard motors) to repair charging and starting system components. Electrical principles are applied to test and troubleshoot complete circuits as well as components of each. Fundamental rebuilding principles and system analysis are emphasized. Safe battery testing and service are performed on marine products. Illustrated will be differences between automotive and marine safety features. Prerequisite(s): MRNT1103

MRNT1122 Small Outboard Fuel Systems 2 1/1/0

This course covers many types of carburetors used on 50 horse and smaller two cycle outboards. Engine pre-delivery inspection and service will be outlined along with seasonal service requirements. Some fuel system diagnostics will be incorporated in this course. Prerequisite(s): MRNT1103

MRNT1124 Small Outboard Electrical Systems 3 1/2/0

This course introduces marine small two-cycle outboard fundamentals of electrical systems. The systems will include the ignition and electrical accessories. The students will learn the operating theories of the different styles of ignition magnetic induction, AC and DC circuits, and electrical control systems. The highly technical ignition and electronic systems are studied along with repair procedures of components of the systems. Emphasis will be on use of test equipment and system operation to develop troubleshooting procedures. Engine pre-delivery inspection and service will be outlined along with seasonal service requirements. Prerequisite(s): MRNT1103, TRNS1104
MRNT1103, TRNS1104

MRNT2202 Marine Fuel Systems 6 3/3/0

This course covers the many types of carburetors used on current 2- and 4-cycle marine products. Training will be on all horsepower ranges, outboard and stern drive. The incorporation of the oil injection is studied along with the associated fuel system parts. Engine predelivery, inspection and service will be outlined along with seasonal service requirements. System troubleshooting will be stressed in this course. Prerequisite(s): MRNT1103, TRNS1102

MRNT2204 Marine Electrical Systems 6 3/3/0

This course introduces electrical systems used on marine equipment focusing primarily on ignition and electrical accessories. The students will learn the theories of ignitions, induction, AC and DC circuits, and electronic and computer controls. Emphasis will be on use of test equipment and system operation to develop troubleshooting procedures. Prerequisite(s): MRNT1103, TRNS1104

MRNT2206 EFI Systems 3 1/2/0

This course teaches the theory of operation and service of the (EFI) Electronic Fuel Injection systems used on stern drive and outboard applications. Engine predelivery inspection and service will be outlined along with seasonal service, engine preparation, and inspection. The incorporation of the 2-cycle oil injection systems. Students will focus on diagnostic procedures and step-by-step troubleshooting procedures. Prerequisite(s): Pre/Corequisites: MRNT2202, TRNS1104

MRNT2208 Engine Condition Diagnosis 2 1/1/0

This course teaches the marine engine diagnosis procedures using various types of test equipment and analysis of data as compared to manufacturer's specifications. Use of tools, equipment and marine service manuals are emphasized. Prerequisite(s): TRNS1102

MRNT2210 Engine Service 3 1/2/0

This course teaches the fundamentals of 2- and 4-cycle engine operation and service. Instruction in this course will include cooling and lubrication systems. Engine construction, fuel/air intake systems, exhaust systems and internal engineering features will be highlighted in this course. Students will perform basic engine component analysis and replacement procedures in this lab. Prerequisite(s): MRNT1103, TRNS1102

MRNT2212 Performance Testing 1 1/0/0

This course will provide instruction in boat performance improvement. Students will study propeller construction and applications. Performance analysis for dynamometer testing and test wheels will be emphasized. Students will conduct performance test of varied marine products. Prerequisite(s): Pre/Corequisites: MRNT2204, MRNT2206

MRNT2214 Marine Internship 3 0/0/3

This course is designed to provide the student with a purposeful occupational experience in the marine field. Each internship is an individualized experience. A training plan is created for each student in conjunction with the employer to provide experience related to the skills and knowledge acquired in the student's training program. Procedures necessary for new boat preparation, motor mounting, accessories, controls and instrumentation are practiced at the internship site. Additional skills from completed courses will be included in the training plan. Prerequisite(s): Instructor approval

MRNT2218 Adv Electrical Diagnosis 3 1/2/0

This course covers the highly technical electrical system used on higher horsepower marine products. Student will perform adjustments and normal service procedures on live units. System troubleshooting procedures will be stressed in this course. Prerequisite(s): MRNT2204

MRNT2220 Marine Shop Management 2 2/0/0

This course teaches students proper shop management procedures including parts ordering, inventory, repair order writing, payroll, employee-employer relations, customer relations and communication skills, sales and service in the service center, warranty procedures on marine products, computerized parts/billing systems, waste management procedures. Prerequisite(s): TRNS1102

MRNT2224 Marine Indep Study Lab I 1 0/1/0

This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge, and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 32 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework, and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): Pre/Corequisite: MRNT1103

MRNT2226 Advanced Drive System 2 1/1/0

This course teaches the service procedures for advanced technology drive systems used in stern mounted vertical drives. Dual propeller drive systems, high speed designs, and heavy duty drive systems will be covered in this course. Complete disassembly, measurement, analysis, shimming and rebuilding procedures will be taught and performed. Prerequisite(s): MRNT1104, MRNT1106

MRNT2230 Marine Stern Drive Engines 3
1/2/0
This course covers the disassembly, reassembly, diagnosis, measurement, service, and adjustment of engines and components. Prerequisite(s): None

MRNT2232 Marine Indep Study Lab II 0/1/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge, and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 32 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework, and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work completed and prepare a Lab Activities Outcome worksheet to determine student efforts and success at completing the Lab Activity Plan and the course. Prerequisite(s): MRNT1103

MRNT2236 Boat Reconditioning 2 1/1/0
This course provides a basic introduction to the use of resins and fiberglass matt to repair damaged hulls. Students will learn the proper procedures to safely prepare a damaged hull and to make the necessary repairs. Surface preparations, painting and the type of fiberglass compatible. Acrylic lacquers are also covered. Prerequisite(s): None

MRNT2238 Marine 4-Stroke Outboard Engine Srvc 2 1/1/0
This course covers the areas dealing with the tuning, maintenance, diagnosis, and adjustment of the 4-stroke outboard engine. Training will include multiple brands of 4-stroke engines and their related components. Prerequisite(s): MRNT2204

MUSC1111 Fundamentals of Music 3 3/0/0
Meets MNTC Goal Area 6. Fundamentals of music and music notation with skills developed through listening, writing music, and in-class performances. Assumes no previous training in music. Prerequisite(s): None

MUSC1112 Beg Class Guitar 1 1/0/0
Meets MNTC Goal Area 6F. Student will progress in the skills of reading and realizing guitar scores by studying a variety of music styles and guitar techniques. The student will understand those works as expressions of composers who created within particular style periods. Student will interpret music using the stylistic conventions and techniques of the period. Student will express their own musical ideas within the framework of the printed score. Student will articulate their observations and ideas about music using appropriate musical language. Prerequisite(s): None

MUSC1113 Beg Class Voice 1 1/0/0
Meets MNTC Goal Area 6F. Class instruction in the healthy use of the voice in singing and speaking. Practical application of vocal techniques. Recommended for beginning voice students, for non-signers who would like to learn to sing, for anyone who uses his/her voice but especially for music, theatre, speech, speech therapy, and elementary education majors. A maximum of two semesters may be taken for a credit. Prerequisite(s): None

MUSC1114 Beg Class Piano 2 2/0/0
Meets MNTC Goal Area 6F. Group piano lessons. Designed for students with no piano experience. Includes emphasis on solo and ensemble playing as well as improvisation, technique and theory. No additional fee. Prerequisite(s): None

MUSC1115 Exploring our American Musical Heritage 3 3/0/0
Meets MNTC Goal Areas 6 and 7. A survey course for the general college student, introducing the elements, structural designs and historical styles of music. Emphasis is placed on expansion of listening skills, musical experiences, field research, and cultural contexts, of folk music. Prerequisite(s): None

MUSC1116 The World of Music 3 3/0/0
Meets MNTC Goal Areas 6 and 8. A survey course for the general college student, introducing the elements, structural designs, and historical styles of music. Emphasis is placed on expansion of listening skills and musical experiences with music of the Western Notated Tradition (classical music). Prerequisite(s): None

MUSC1118 Rock and Pop Music 3 3/0/0
Meets MNTC Goal Area 6. This survey of rock and pop music for all students provides a comprehensive history of pop music in the United States from its origins to the current sounds of today. Emphasis is placed on the music itself through analysis and critique, and covers all styles of rock and pop music from R&B to Metal to Rap and beyond. Prerequisite(s): None

MUSC1120 Introduction to Music Technology 3 3/0/0
Meets MNTC Goal Area 6. This course introduces the principal topics of music technology: acoustics, computers, MIDI, digital audio, and tools for music production and scoring. Hands on experience will be used extensively to enhance understanding. This course will serve as a springboard to further study and exploration of hardware and software tools for music creation. Prerequisite(s): None

MUSC1121 Musicianship I 3 3/0/0
Meets MNTC Goal Area 6. Basic approaches to the study of music, in the Western notated tradition, as the organization and interaction of musical elements: melody, harmony, rhythm, form, and color, with emphasis in the tonic-dominant harmony. Involves analysis and composition. Must be taken concurrently with Musc 1123. Prerequisite(s): Ability to read music

MUSC1122 Musicianship II 3 3/0/0
Meets MNTC Goal Area 6. Basic approaches to the study of music, in the Western notated tradition, as the organization and interaction of musical elements: melody, harmony, rhythm, form and color, with emphasis in the tonic-dominant harmony. Involves analysis and composition. Must be taken concurrently with Musc 1124. Prerequisite(s): MUSC1121

MUSC1123 Sight Singing & Ear Training I 1 1/0/0
Meets MNTC Goal Area 6F. Course is designed to improve skills in two areas: 1) to recognize and notate tonal melodies and rhythmic patterns, and 2) to reproduce "at sight" what is notated. Must be taken concurrently with Musc 1121. Prerequisite(s): Ability to read and hear music

MUSC1124 Sight Singing & Ear Training II 1 1/0/0
Meets MNTC Goal Area 6F. Course is designed to improve skills in two areas: 1) to recognize and notate tonal melodies and rhythmic patterns, and 2) to reproduce "at sight" what is notated. Must be taken concurrently with Musc 1121. Prerequisite(s): Ability to read and hear music

MUSC1135 Voice Ensemble 1 1/0/0

Meets MNTC Goal Area 6F. The voice ensemble, known as the MAD/JAZZ Singers, meets three hours per week on a regularly scheduled basis, studies and prepares music from various musical periods and geographic regions, and performs one concert each semester. The group also participates in the annual MSCTC Wassail Fest, at the MCC Fine Arts Festival, and in occasional area tours. Selected by audition, the MAD/JAZZ Singers are chosen from the members of the Concert Choir. May be repeated for one credit. Prerequisite(s): MUSC1141

MUSC1141 Concert Choir 1 1/0/0
Meets MNTC Goal Area 6F. The MSCTC choir is a non-auditioned group that meets four times per week on a regularly scheduled basis. The group will study and prepare music from various musical periods and geographic regions, and performs a minimum of one concert each semester. The group will also participate in campus life venues as they arise, the MCC Fine Arts Festival, and occasional area tours. Prerequisite(s): None

MUSC1145 Area Chorale 1 1/0/0
Meets MNTC Goal Area 6F. The Area Chorale is a non-auditioned community chorus that performs one concert of choral/orchestral music each semester. The group meets one evening per week on a regularly scheduled basis. May be repeated for one course. Prerequisite(s): None

MUSC1151 Ind Voice Lessons 1 1/0/0
Meets MNTC Goal Area 6F. Individual voice lessons. Students interested in this course should contact the music department so that instruction can be arranged. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC1162 Jazz Ensemble 1 1/0/0
Meets MNTC Goal Area 6F. The Jazz Ensemble meets on a weekly basis, studies and prepares music in the various styles of jazz, and performs one concert each semester. Special emphasis will be given to jazz improvisation as an integral part of this music. Enrollment is open to any instrumentalist at the discretion of the instructor. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC1164 Concert Band 1 1/0/0
Meets MNTC Goal Area 6F. The MSCTC Concert Band is an instrumental group that meets three times per week on a regularly scheduled basis. The group will study and prepare music from a wide range of composers and styles, and perform a minimum of one concert each semester. This ensemble will participate in campus life venues, festivals, and occasional area tours. Small ensemble performances will also be included in this experience. May be repeated for credit. Prerequisite(s): Ability to read and play written music on a band instrument; private study is recommended and encouraged

MUSC1168 Pep Band 1 1/0/0
Meets MNTC Goal Area 6F. The MSCTC Pep Band is an instrumental group that meets two times per week on a regularly scheduled basis. The group will study and prepare music from a wide range of composers and styles, and performs a minimum of one concert each semester. This ensemble will participate in sporting events, campus life venues, and other events. May be repeated for credit. Prerequisite(s): Ability to read and play written music on a band instrument

MUSC1181 Private Instrumental Lessons 1 1/0/0
Meets MNTC Goal Area 6F. Individual woodwind, brass, percussion, strings and guitar lessons. Subject to instructor availability. Students should contact the music department to arrange instruction. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC1191 Ind Piano Lessons 1 1/0/0
Meets MNTC Goal Area 6F. Individual piano lessons. Students should contact the music department to arrange instruction. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC1192 Piano Pedagogy 2 2/0/0
A general survey of current piano methods, teaching repertoire, and curriculum for piano teachers of beginning and intermediate students. Meets once a week on a regularly scheduled basis. Offered when demand is sufficient. Prerequisite(s): None

MUSC2223 Sight Singing & Ear Training III 1 1/0/0
Meets MNTC Goal Area 6F. Course is designed to improve skills in two areas: 1) to recognize and notate tonal melodies and rhythmic patterns, and 2) to reproduce "at sight" what is notated. Must be taken concurrently with MUSC 2221. Prerequisite(s): Ability to read music; pre-college experience in applied music; MUSC1124

MUSC2224 Sight Singing & Ear Training IV 1 1/0/0
Meets MNTC Goal Area 6F. Course is designed to improve skills in two areas: 1) to recognize and notate tonal melodies and rhythmic patterns, and 2) to reproduce "at sight" what is notated. Must be taken concurrently with MUSC 2222. Prerequisite(s): Ability to read music; pre-college experience in applied music; MUSC2223

MUSC2231 Comprehensive Musicianship III 3 3/0/0
Meets MNTC Goal Areas 2 and 6. Continued study and application of concepts from Music 1121 & 1122, including functional harmony, basic style and form analysis, chromatic harmony, and an introduction to 20th century harmonic practices. Comparisons of music from various stylistic periods. Beginning studies in counterpoint. Prerequisite(s): MUSC1122

MUSC2232 Comprehensive Musicianship IV 3 3/0/0
Meets MNTC Goal Areas 2 and 6. Continued study and application of concepts from Music 1121 & 1122, including functional harmony, basic style and form analysis, chromatic harmony, and an introduction to 20th century harmonic practices. Comparisons of music from various stylistic periods. Beginning studies in counterpoint. Prerequisite(s): MUSC2231

MUSC2251 Individual Voice Lessons 2 2/0/0
Meets MNTC Goal Area 6F. Individual voice lessons of one hour per week. Open to advanced students with instructor's consent. Required of voice performance or voice pedagogy majors. Includes required performances. Students interested in this course should contact the music department so that instruction may be arranged. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC2281 Individual Instrumental Lessons 2 2/0/0
Meets MNTC Goal area 6F. Individual woodwind, brass, percussion, and guitar lessons of one hour per week. Open to advanced students with instructor's consent. Required of instrumental performance or education majors. Includes required performances. Students should contact music department to arrange instruction. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

MUSC2291 Individual Piano Lessons 2 2/0/0

Meets MNTC Goal Area 6F. Individual piano lessons of one hour per week. Open to advanced students with instructor's consent. Required of piano performance or piano pedagogy majors. Includes additional studio classes and required performances at the instructor's discretion. Interested students should contact the music department to arrange instruction. Additional fee. May be repeated for credit. Prerequisite(s): Instructor approval

NANO1101 Fundamentals of Nanoscience I 3
3/0/0
Fundamentals of Nanoscience I (NANO1101) is the first semester of a two-semester course sequence (NANO1101 and 1102) designed to expose students to the new and rapidly emerging fields of nanoscience and nanotechnology. It is designed to establish a basic understanding of the :
1. Underlying scientific basis for the behavior of nanomaterials.
2. Scope of nanomaterials potential use in products manufactured by various industries
3. Methods of fabrication and characterization of nanomaterials.

Nanoscience is a field of scientific study which is cross disciplinary and encompasses the broad areas of chemistry, biology and physics, materials science and engineering. Nanoscience strives to understand the composition, structure, properties and behavior of the molecules and atoms which make up the material in our environment and newly created nano-materials. Nanotechnology is the purposeful design and production of a product at the nanoscale (or microscale) which has useful applications in our world. Prerequisite(s): None

NANO1102 Fundamentals of Nanoscience II 3
3/0/0
Fundamentals of Nanoscience II (NANO1102) is the second semester of a two semester course sequence (NANO 1101 & 1102) designed to expose students to the new and rapidly emerging fields of nanoscience and nanotechnology. It is designed to establish a basic understanding of the:
1. Characterization and Analysis Techniques utilized to study nanomaterials
2. Specific applications and examples of nanomaterials in the various industry areas

Nanoscience is a field of scientific study which is cross disciplinary and encompasses the broad areas of chemistry, biology and physics, materials science and engineering. Nanoscience strives to understand the composition, structure, properties and behavior of the molecules and atoms which make up the material in our environment and newly created nano-materials. Nanotechnology is the purposeful design and production of a product at the nanoscale (or microscale) which has useful applications in our world. Prerequisite(s): None

NANO1197 Industry Internship Experience I 1
0/0/1
Industry Internships Experience I is the first of three internships that students will experience. Each Industry Internship will continue to raise the level of exposure and hands on activity to highly sensitive equipment in the Nanoscience industry.

The Industry Internship Experience I is a one-credit directed industry experience designed to acquaint students with the industry and research laboratory/ production environment. Supervised tours & / or virtual tours of a variety of different laboratory/ production facilities will be conducted as a single group or as smaller groups depending on space availability. Prerequisite(s): Pre/Corequisites: A minimum of a C grade or better in BIOL1111, CHEM1100 and NANO1101

NANO2205 Laboratory Instrumentation 6
0/6/0

This course is an intensive combined lab/lecture course designed to expose students to some of the more basic laboratory instrumentation, practices and applications utilized in research and industrial laboratory settings. Most, if not all, of the techniques covered have direct application in the new and rapidly emerging fields of nanoscience and nanotechnology. The course is broken up into six distinct modules, each focusing on specific skill sets critical to a laboratory technician in general. The course is designed to establish:

1. a basic understanding of theory behind, applications of, and procedures utilized in the proper use of the technologies
2. minimum levels of competency in the proper use and care of the equipment as well as the proper methods utilized in the recording, analysis and reporting of data. Prerequisite(s): BIOL1111, CHEM1100 and PHYS1106

NANO2207 Nanobiotechnology & Nanobiomedicine 3
3/0/0
Nanobiotechnology & Nanobiomedicine is a second-year nanotechnology course, which is intended to expose students to the specific applications of nanotechnology in the biotechnology and biomedical areas of industry, research and development. The course will cover the technologies utilized in the fabrication and production of specific nanomaterials, their use or applications in the biotechnology and biomedical areas, future trends and societal, ethical and environmental implications of these technologies. It is intended to build on the introductory material covered in NANO 1101 and NANO 1102 (Fundamentals of Nanoscience I & II.) Prerequisite(s): None

NANO2208 Nanomaterials and Coatings 3
3/0/0
Nanomaterials and Coatings (NANO2208) is a second-year nanotechnology lecture course intended to expose students to the fundamentals of nanomaterials and coatings. The student will gain a basic understand of both organic and inorganic films, ranging from thin film properties to actual processing. Students will gain the insight into the advantages of nanomaterials over bulk materials and how various industries are leveraging these properties. As nanotechnology is such a diverse field, examples will range from everyday applications (DVD's) to futuristic concepts (nanoparticles to cure diseases). Prerequisite(s): A minimum of a C grade or better in NANO1101 and NANO1102

NANO2209 Thin Film Technology 3 3/0/0
Thin Film Technology (NANO2209) is a second-year nanotechnology lecture course designed to expose students to some of the more common thin-film processing and analysis techniques, specifically vacuum-based processing and analysis. The course will cover vacuum fundamentals and provide insight at the atomic level, where thin film technology truly resides. Prerequisite(s): A minimum of a C grade or better in NANO1101 and NANO1102

NANO2210 Semiconductor Fabrication 3
2/1/0
Semiconductor Fabrication (NANO2210) focuses on the terminology, concepts, processes, products, and equipment commonly used in the manufacturing of ultra-large-scale integrated (ULSI) semiconductors. Prerequisite(s): None

NANO2211 Manufacturing Quality Assurance 3
3/0/0
Manufacturing Quality Assurance (NANO2211) is a second-year lecture/lab course with hands-on processing designed to expose students to the many facets of the manufacturing environment. Students will be responsible for a manufacturing line (equipment operation, troubleshooting, and documentation) and resulting product quality (sampling plan, test data, process/product control limits, control charts and flowcharts). Prerequisite(s): A minimum of a C grade or better in NANO2205; Co-requisite: NANO2212

NANO2212 Surface & Thin Film Analysis Techniques 3
3/0/0

Surface and Thin Film Analysis Techniques (NANO2212) is an intensive lecture course with hands-on analysis designed to expose students to some of the more common analysis techniques and the data-impact to nano-processing. Experimental data obtained by the student will provide direction to a 'manufacturing' line and develop the nano-technician skill set from analysis to reporting to process impact. The course is designed to establish:

- a basic understanding of theory behind, applications of and procedures utilized in the characterization of surfaces and thin films,
- minimum levels of competency in the proper use and care of the equipment as well as the proper methods utilized in the recording, analysis and reporting of data.

Nanoscience is a field of scientific study which is cross disciplinary and encompasses the broad areas of chemistry, biology and physics, materials science and engineering. Nanoscience strives to understand the composition, structure, properties and behavior of the molecules and atoms which make up the material in our environment and newly created nano-materials. Nanotechnology is the purposeful design and production of a product at the nanoscale (or microscale) which has useful applications in our world. Prerequisite(s): A minimum of a C grade or better in NANO2205; Co-requisite: NANO2211

NANO2231 Industry Internship Experience II , 2
0/0/2

The Industry Internship Experience II is a 2 credit directed industry experience designed to allow students to begin work with the industry and research laboratory/ production partners. Students will spend 8 hours/week for 4.5 weeks at each of three different laboratory/ production facilities to gain hands on practical experience utilizing skill sets established previously in the program and to begin to develop new skill sets unique to each industry. Placement into internship experiences must be approved by both the Program Director and the Industry partner. Students may be required to sign non-disclosure agreements in order to participate. Prerequisite(s): A minimum of a C grade or better in NANO2205

NANO2232 Industry Internship Experience III 5
0/0/5

The Industry Internship Experience III is a 5 credit directed industry experience designed to allow students to begin work with the industry and research laboratory/ production partners. Students will different laboratory/ production facilities to gain hands on practical experience utilizing skill sets established previously in the program and to begin to build upon and hone skill sets unique to each industry. Placement into internship experiences must be approved by both the Program Director and the Industry partner. Students may be required to sign non-disclosure agreements in order to participate. Prerequisite(s): A minimum of a C grade or better in NANO2205

NURS1404 Nsg Fundamentals I 4 2/2/0

This course introduces the student to the role of the ADN/RN. Content includes holistic assessment of clients and families, therapeutic communication and relationships, basic pharmacology, medication calculation, pain management, pre- and post-op care, asepsis, and infection control. Prerequisite(s): CSCI1101, MATH0090

NURS1414 Nsg Fundamentals II 1 1/0/0

This course is designed to prepare students to implement the nursing process to design individualized plans of care and to apply techniques and learning concepts and principles in health promotion, maintenance and restoration of health. Professional nursing behavior, scopes of practice and health

care delivery systems will be discussed. Prerequisite(s):
NURS1404

NURS1415 Nursing Clinical I 2 0/2/0

This course incorporates application of the nursing process, critical thinking, reporting and recording, physical assessment, and medication administration. Some skills included are medication calculation, intravenous skills, nasogastric and tracheal suction. Prerequisite(s):
NURS1404

NURS1424 Reproductive Health 1 1/0/0

This course introduces the student to normal sexuality, and prenatal and postpartum nursing care for mother and infant. Holistic care and wellness promotion is emphasized. Prerequisite(s): NURS1404

NURS1434 Holistic Nursing I 1 1/0/0

This course introduces the student to normal neurological, sensory and musculoskeletal care throughout the life span. Holistic care and wellness promotion is emphasized. Prerequisite(s): NURS1404

NURS1444 Holistic Nursing II 2 2/0/0

This course introduces the student to normal gastrointestinal, metabolic, and immune system nursing care throughout the life span. Holistic care and wellness promotion is emphasized. Prerequisite(s): NURS1404

NURS2410 Role Transition 2 2/0/0

This course is designed to help the LPN prepare for his/her transition to the RN role. Primary content includes role differentiation, physical assessment, nursing process care planning and teaching and learning. Prerequisite(s): PN Licensure

NURS2426 Reproductive Disorders 2 2/0/0

This course is designed to prepare students to plan care to meet basic human needs to assist clients as they adapt to abnormal pregnancy, delivery, post-partum, reproductive conditions and/or newborn illnesses or abnormalities. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS1424; or LPN and NURS2410

NURS2435 Nursing Clinical II 5 0/5/0

The focus of this clinical course is for the student to assess, plan, implement and evaluate care for one to two clients. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS1424; or LPN and NURS2410

NURS2436 Restorative Nursing I 1 1/0/0

This course is designed to prepare students to plan care to meet basic human needs to assist clients as they adapt to neurological, sensory, and musculoskeletal illnesses and accidents. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS1424; or LPN and NURS2410

NURS2445 Nursing Clinical III 5 0/5/0

The focus of this course is for the student to assess, plan, implement and evaluate care for groups of clients, to act as a manager of care for a team of clients, to delegate nursing actions, and to supervise nursing personnel. Prerequisite(s): NURS2435

NURS2446 Restorative Nursing II 2 2/0/0

This course is designed to prepare students to plan care to meet basic human needs to assist clients as they adapt to digestive, endocrine, and immune system illnesses. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS1444; or LPN and NURS2410

NURS2454 Holistic Nursing III 2 2/0/0

This course will focus on the body's normal fluid and electrolyte balance, urinary, cardiac and respiratory systems and implications for health teaching to promote wellness, holism, and prevention of illness. Prerequisite(s): NURS1404, NURS1405, NURS1414, NURS1415

NURS2455 Advanced IV Therapy 1 0/1/0
This lab course will focus on advanced nursing skills performed by the RN. Concepts will include advanced med calculations, care of picc and central lines, administration of blood transfusions and TPN and starting IVs. Prerequisite(s): Pre/Corerequisite: NURS2445

NURS2456 Restorative Nursing III 2 2/0/0
This course is designed to prepare students to plan care to meet basic human needs to assist clients as they adapt to illnesses of the respiratory, cardiac, and urinary systems as well as clients with fluid and electrolyte abnormalities. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS2454; or LPN and NURS2410

NURS2464 Nursing Leadership 1 1/0/0
This course is designed to prepare students for their role as nurse leaders. Areas of focus include knowledge and skills necessary to make decisions regarding setting priorities, delegation, management, supervision, teaching, continuity of care, legal parameters of nursing practice, and ethical issues in nursing. Prerequisite(s): NURS1404, NURS1414, NURS1415, NURS1424, NURS1434, NURS1444; or LPN and NURS2410

NURS2466 Mental Health Nursing 2 2/0/0
This course introduces the student to concepts of mental health/mental illness and its theories along with psychopharmacology. Emphasizes holistic nursing care of clients with psychiatric and substance abuse disorders. Prerequisite(s): NURS1404, NURS1414, NURS1415; or LPN and NURS2410

ODPR1102 Outdoor Power Equip Theory 5 5/0/0
The student will study basic two- and four-cycle engine theory, design, construction, and operation to include supporting systems. In addition the student will study advanced fuel systems theory, as well as the design, construction, adjustment and operation of various snowmobile chassis, suspension and powertrain systems. Prerequisite(s): None

ODPR1104 ODP Engine Service Lab I 4 0/4/0
The student will disassemble, clean, measure, determine serviceability of components, reassemble and adjust engines, their components and supporting systems. Prerequisite(s): Pre/Corequisite: ODP1102

ODPR1106 ODP Fuel/Electrical Srv Lab II 2 0/2/0
The student will disassemble, clean, measure, test, determine serviceability of components, reassemble, adjust fuel, electrical and related systems components. Prerequisite(s): Pre/Corequisite: ODP1102

ODPR1108 Snow Fuel/Chassis/Pwrtrn Lab III 3 0/3/0
The student will disassemble, clean, determine serviceability of components, repair, reassemble, adjust and operate various advanced fuel systems. In addition the student will disassemble, clean, determine serviceability, reassemble and adjust various snowmobile chassis, suspensions and powertrain systems. Prerequisite(s): Pre/Corequisite: ODP1102

ODPR1110 Adv Eng & Rltd Pwr Equip Thry 5 5/0/0
The student will study advanced two- and four-cycle engine theory, powertrain theory, electrical and ignition theory, as well as the design, construction, adjustment and operation of various engines, supporting systems and powertrains. In addition the student will study ATV, snowmobile, PWC, generator and trailer theory, design and construction. Prerequisite(s): Pre/Corequisite: ODP1102

ODPR1112 Adv Eng, Electrical & Pwrtrn Lab 4 0/4/0
The student will disassemble, clean, measure, test, determine serviceability of components, repair, reassemble, adjust and operate various power sports engines, their components, supporting systems and powertrains. Prerequisite(s): Pre/Corequisite: ODP1104, ODP1108, ODP1110

ODPR1114 Related Power Equip Svc Lab 3 0/3/0
The student will diagnose, tune-up, disassemble, clean, determine serviceability of components, repair, reassemble, operate and adjust various, generators, trailer, transmissions and other drivetrain components and supporting systems. Prerequisite(s): Pre/Corequisite: ODP1104, ODP1106, ODP1110

ODPR1116 All Terrain Vehicle Service 1 0/1/0
The student will diagnose, tune-up, disassemble, clean, determine serviceability of components, repair, reassemble, operate and adjust various all terrain vehicle engines, drivetrains, supporting systems. Prerequisite(s): Pre/Corequisite: ODP1112

ODPR1118 Chainsaw Service 1 0/1/0
The student will tune-up, diagnose, disassemble, clean, determine serviceability of components, repair, reassemble, operate and adjust various chainsaws and their supporting systems. Prerequisite(s): Pre/Corequisite: ODP1104, ODP1106

ODPR1120 Personal Water Craft Service 1 0/1/0
The student will diagnose, tune-up, disassemble, clean, determine serviceability of components, repair, reassemble, operate and adjust PWC engines, supporting systems, chassis and powertrains. Prerequisite(s): Pre/Corequisite: ODP1112

ODPR1122 Troubleshooting/Tune-up Lab 1 0/1/0
The student will troubleshoot various types of outdoor power/power sports equipment. The student will apply knowledge and skills gained in previous course work. Prerequisite(s): Pre/Corequisite: ODP1112, ODP1114

ODPR1124 Welding 1 0/1/0
This course introduces the student to welding safety, welding and cutting fundamentals. The course provides training to develop the necessary skills to perform basic cutting and weld operations. Prerequisite(s): None

ODPR1132 Outdoor Power Indep Study Lab I 1 0/1/0
This course is designed by the student and the instructor to provide an opportunity for the student to gain proficiency in selected competency areas and integrate the skills, knowledge and concepts gained in previous coursework. The student, with instructor approval, will prepare a Lab Activity Plan consistent with 32 hours of lab time. The plan should reflect the following course goals, student knowledge, prior coursework and student skill level. The student will complete a Daily Activity Lab worksheet that will represent work

completed and prepare a Lab Activities Outcomes worksheet to determine student efforts and success at completing the Lab Activity plan and the course. Prerequisite(s): ODP1102, ODP1110

ODPR1134 Outdoor Power Equipment Service 1
0/1/0

The student will diagnose, tune-up, disassemble, clean, determine serviceability of components, repair, reassemble, operate and adjust outdoor power equipment engines, supporting systems, chassis and powertrains. Prerequisite(s): ODP1104, ODP1106

ODPR1136 Internship 1 0/0/1

This course is designed to provide the student with a purposeful occupational experience in the Outdoor Power Equipment and Snowmobile field. Each internship is an individualized experience. A training plan will be created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the training program. Prerequisite(s): Advisor approval

PARA1100 Intro to Paralegal 4 4/0/0

This course provides an overview of the paralegal profession, the legal office and the legal system. Prerequisite(s): None

PARA1101 Intro to Paralegal 3 3/0/0

This course provides an overview of the paralegal profession, the legal office and the legal system. Prerequisite(s): None

PARA1102 Research & Writing I 3 3/0/0

This course is a general introduction to recorded sources of law. It will examine where and how it can be found. The course will include discussion of the sources of law and practical writing exercises. Prerequisite(s): ENGL0050, DVCM0006, or appropriate placement test score

PARA1106 Wills, Trusts & Probate 3 3/0/0

This course includes a study of the procedures, documents and other techniques used in the planning for transfer of property after death, administration of estates and the preparation of federal and state gift, estate and income tax returns. Prerequisite(s): None

PARA1110 Torts for Paralegal 3 3/0/0

This course includes the study of the procedures, documents and techniques used in the practice of civil litigation, personal injury and family law. Topics for Civil litigation include case intake, discovery, trial preparation, trial practice and post-judgment relief. Topics for family law include marriage, separation, divorce, annulment, adoption and custody. Prerequisite(s): None

PARA1112 Legal Ethics for the Paralegal 3
3/0/0

This course covers the attorney-client privilege as it relates to paralegals, unauthorized practice of law, regulation of paralegals, ethical codes and rules. Prerequisite(s): None

PARA2202 Research & Writing II 3 3/0/0

This course is a continuation of Research and Writing I. Students will develop skills in identifying, analyzing and researching legal issues. Writing exercises will be more complex, including preparation of legal memoranda. Prerequisite(s): PARA1102

PARA2204 Real Property 3 3/0/0

This course includes the law dealing with interest in, ownership and of, and title to real estate. Emphasis will be placed on legal descriptions, recording system, procedures

and documents for real property transfer and zoning of real property. Prerequisite(s): None

PARA2210 Advanced Paralegal Practices 3
3/0/0

This course provides in depth study of law office management, interviewing techniques, employment policies, organizational structure of law firms and financial procedures. Prerequisite(s): ACCT2211, ACCT2201, PARA1100

PARA2212 Family Law 3 3/0/0
Prerequisite(s):

PE1109 Wellness Skills 2 1/1/0

This course is designed to introduce wellness concepts and provide the knowledge and skills necessary to develop a healthy physical, mental, and social lifestyle. Students will actively seek to develop and maintain a balance of these elements through increased knowledge of appropriate activities including positive and responsible belief systems and choices. Topics may include anatomy, physiology, kinesiology, emotional/mental health, nutrition, fitness, weight management, drug use/abuse, planning and commitment to change. Course includes physical activity participation by students. Prerequisite(s): None

PE1110 Aerobics 0.5 0/5/0

Introduction to aerobic conditioning (dance), target heart rate range, benefits, what constitutes aerobic exercise, common injuries. Prerequisite(s): None

PE1114 Bowling 0.5 0/5/0

Introduction to the fundamentals, rules, scoring, and equipment of the game. Prerequisite(s): None

PE1126 Archery 0.5 0/5/0

Selection and care of equipment, history, terminology, rules, safety and etiquette. Fundamentals of target technique including stance, aiming (point of aim, instinctive, sight), release and scoring. Prerequisite(s): None

PE1127 Alpine Skiing 0.5 0/5/0

Selection and care of equipment, history, background, technique, and safety of the sport. Individual and group instruction in the fundamentals of downhill skiing. Additional fee. Prerequisite(s): None

PE1128 Cross Country Skiing 0.5 0/5/0

Selection and care of equipment, history, background, and technique of the sport. Individual and group instruction in the fundamentals along with ample opportunity for practice. Prerequisite(s): None

PE1130 Beg Golf 1 0/1/0

The fundamentals of golf necessary to play at the beginning recreational level. Includes discussion of rules, etiquette, equipment and terminology. Classroom and golf course experience. Additional fee assessed. Prerequisite(s): None

PE1134 Recreational Games 0.5 0/5/0

An introduction to the rules, skills, history and etiquette of recreational games. Includes outdoor yard games as well as indoor games, all at a minimal level of competitiveness. Prerequisite(s): None

PE1141 Intro Strength Training 1 0/1/0

Introduction to weight lifting, weight room safety, periodization, energy systems, nervous system, muscular system and how this information is used to formulate a weight training program as a means to achieve muscular strength, muscular endurance, tone or size. An additional

workout day per week is also required. Prerequisite(s): None

PE1145 Personal Fitness 0.5 0/5/0
Introduction to the basic concepts of personal fitness, i.e., cardiovascular fitness, muscular strength/endurance and flexibility. Develop a personal fitness program. Cardiovascular fitness will be emphasized. Prerequisite(s): None

PE1151 Basketball 0.5 0/5/0
Stresses development of fundamentals with advance to game competition. Introduction to rules and team strategy. Prerequisite(s): None

PE1152 Volleyball 0.5 0/5/0
Review of history and rules of volleyball. Stress placed on development of basic skills and team play strategy. Prerequisite(s): None

PE1153 Softball 0.5 0/5/0
Review of fundamentals with advance to game competitions. Considers rules and team strategy. Prerequisite(s): None

PE1156 Badminton 0.5 0/5/0
This course is designed to introduce the student to the fundamentals, rules and strategy and strokes used in the playing of both singles and doubles badminton. Prerequisite(s): None

PE1190 Vars Football 1 0/1/0
The course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement, and physical skills in a competitive environment. May be repeated once for credit. Prerequisite(s): None

PE1192 Vars Basketball 1 0/1/0
The course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement and physical skills in a competitive environment. May be repeated once for credit. Prerequisite(s): None

PE1193 Vars Baseball 1 0/1/0
This course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement and physical skills in a competitive intercollegiate baseball setting. May be repeated once for credit. Prerequisite(s): None

PE1194 Vars Golf 1 0/1/0
This course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement and physical skills in a competitive environment. May be repeated once for credit. Prerequisite(s): None

PE1197 Vars Volleyball 1 0/1/0
This course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement and physical skills in a competitive intercollegiate volleyball setting. May be repeated once for credit. Prerequisite(s): None

PE1199 Vars Softball 1 0/1/0
The course presents the student with numerous opportunities in a variety of situations to learn about and develop their self-image, characteristics of high achievement and physical skills

in a competitive environment. May be repeated for credit once. Prerequisite(s): None

PE2210 Sports Specific Training1-2
Introduction to sports specific training it will include the development of a personal training program, the analysis of the recorded data and the manipulation of this data to maximize training outcomes. The student will train a minimum of four days per week. Course may be repeated for credit. Prerequisite(s): None

PE2222 Law Enforcement Condition 2
0/2/0
This course is designed to prepare the law enforcement student to successfully pass the Minnesota POST qualifications in physical fitness and conditioning. The course introduces fitness techniques and strategies that promote and increase physical endurance, stamina, and body strength. This course also emphasizes concepts necessary to develop a lifestyle that promotes physical, emotional and mental health. Topics may include stress management, nutrition, weight management, drug use/abuse, and fitness maintenance. Prerequisite(s): None

PE2240 Athletic Injury, Care & Prevention 2
2/0/0
This course is offered to coaches interested in sports medicine and students interested in coaching and/or athletic training. It is designed to enhance the student's knowledge and performance in sports medicine. The course will cover athletic injury prevention measures, injury care and management, basic injury assessment, nutrition, and specific athletic injuries and related problems. Prerequisite(s): None

PE2241 Principles of Coaching 3 3/0/0
This course is designed to introduce students to athletic coaching philosophies, basic coaching concepts in team and individual sports, and theories involved in coaching. Emphasis will be on legal issues surrounding coaching, developing coaching philosophies, exploring diversity in coaching, and rules and regulations associated with coaching at different levels. Prerequisite(s): None

PE2251 Foundations in PE 2 2/0/0
An introductory classroom course for prospective physical education majors, minors and anyone interested in gaining general knowledge of the field. Includes a review of history, principles, objectives and vocational opportunities. Examines current issues in the field of physical education and the relationship of the profession to health, recreation, athletics and intramural sports. Prerequisite(s): None

PE2253 Inrto to Recreation 2 2/0/0
Introductory course designed to introduce the student to the broad scope of the field of recreation and leisure. Study includes history, philosophy, principles and impact of recreation. Topics include leadership, organization, financing and career opportunities. Prerequisite(s): None

PE2254 Sports in Society 3 3/0/0
A discussion of the impact sports has in society and the values we place on sports. The course will explore the values, virtues, consequences, rights and responsibilities of sports in our culture. The course is designed to improve the understanding of legal, racial, academic, and moral issues of sports and athletics. Prerequisite(s): None

PE2255 Aquatic Outdoor Recreation 2
1/1/0
A course in which 4-6 days are spent on a wilderness field trip. Major topics covered are camping and camping equipment, camp food and nutrition, canoeing, fishing, nature

study and woodlore, safety, map and compass and outdoor philosophy. Prerequisite(s): None

PE2256 Winter Outdoor Recreation 2
1/1/0

Course stresses appreciation and enjoyment of the winter environment. Activities include camp-outs, snow travel, snow shelters, sliding, orienteering, snow shoeing and cross country skiing. Classroom topics are outdoor issues, nature appreciation, diet and nutrition, safety and survival clothing and equipment. A fee is charged to cover cost of food and supplies. Elective for students in social work, biological sciences and recreation. Prerequisite(s): None

PE2257 Backpacking 1 0/1/0

An activity oriented course. Classroom topics include: preparing for the outdoor experience

1. foods and nutrition
2. equipment
3. geography maps, trails and orienteering
4. ecology and nature
5. safety and survival
6. fitness for activity

The class will plan the trip: route, meals, days; and complete the backpacking experience. Prerequisite(s): None

PE2299 Sports Perfor Enhanc 1 0/1/0

This course is designed to introduce the student to the science, methodology and techniques used to improve athletic performance. A variety of physical, mental and emotional training topics will be experienced. Exercises and/or drills for power, speed, quickness, balance, hand-eye coordination, relaxation, imagery and positive self-imagery will be performed. NOTE: At least three days per week of strength training are expected by each student outside of the class. Prerequisite(s): None

PHIL1201 Ethics 3 3/0/0

Meets MNTC Goal Areas 2, 6 and 9. This course is an introduction to the topic of Ethics. In this course, the following questions are examined: What is Ethics? How do we make ethical decisions? Are things that are legally right necessarily right? Should we consider our own interests when making ethical decisions? Are things ethically right simply because God says they are right? If our culture says something is ethically right, does that mean it is ethically right? The course also examines numerous topical ethical issues such as racism, terrorism and censorship. Prerequisite(s): None

PHIL1211 Intro to Philosophy 3 3/0/0

Meets MNTC Goal Areas 2 and 6. This course is an introduction to Philosophy. In this course, the following questions are examined: Does God exist? Does God not exist? Can evil and God both exist? Do humans have a free will? Do humans have souls? Is there life after death? What can we know? Why do some people believe that knowing anything is possible? Prerequisite(s): None

PHIL1402 Critical Thinking 3 3/0/0

Meets MNTC Goal Areas 2 and 6. This course focuses on studying the structure of argument, the detection of common argument fallacies, the creation of cogent arguments, and the acquisition of skills needed to translate clearly constructed arguments into argumentative essays on contemporary topics. Students will study inductive and deductive logic, valid and invalid deductive argument forms, the differences between fact, judgment and belief, and the importance linguistic definition plays in constructing strong arguments. Prerequisite(s): None

PHIL2220 Environmental Ethics 3 3/0/0

Meets MNTC Goal Areas 9 and 10. This course examines the basic positions and concepts within the field of environmental philosophy. A primary emphasis will be placed upon understanding our moral obligations towards the natural environment. Representative course topics may include the following: What is nature?; Do humans have direct duties towards the natural world?; What is deep ecology; Should we conserve or preserve our natural environment?; Do intrinsic values exist in nature?; Is a land ethic possible?; and, What is ecofeminism? Prerequisite(s): None

PHIL2224 Philosophy of Religion 3 3/0/0

Meets MNTC Goal Areas 2, 6 and 8. This course explores proposed answers to the question, "What role can religion play when considering questions about the meaning of life?" The course will consider the traditional arguments for the existence of god as expressed by western thinkers as well as non-western efforts to reconcile order and disorder in the universe. The course will focus on the relationship between faith and reason and will reflect on the nature of religious experience and how diverse cultures express various ways of knowing about the divine. Prerequisite(s): None

PHRM1001 Fund Concepts of Pharmacy 3
3/0/0

This course introduces the student to the organization and function of the hospital and retail pharmacy. Emphasis is placed upon the duties and responsibilities of the pharmacy technician, and the calculations required to accurately prepare patient medications for distribution. Prerequisite(s): None

PHRM2001 Pharmacy Prin / Prac I 4 2/2/0

This course covers drug names, classifications and mechanisms of action, the use of computers in pharmacy and their practical applications. The student will be introduced to hospital and retail dispensing techniques as well as basic customer service. Prerequisite(s): None

PHRM2002 Pharmacy Prin / Prac II 5 2/3/0

This course covers intravenous drug admixture, TPN compounding, critical care intravenous admixture, and unit dose medication dispensing to nursing units. Emphasis is placed upon medication storage and stability, diabetic supplies, and chemotherapy storage and admixture. Prerequisite(s): PHRM1001, PHRM2001

PHRM2004 Drug Properties/Distribution 3
2/1/0

This course provides the student with basic physical and chemical drug properties, and the functions related to purchasing and inventory control in the pharmacy. Emphasis is placed upon the theory, stability, and safety of drug products, and the procedures required to develop and maintain inventory control. Prerequisite(s): PHRM1001, PHRM2001

PHRM2010 Experiential / Hospital 3 0/0/3

This supervised instructional experience in the clinical setting introduces the student to tasks performed by the pharmacy technologist. Prerequisite(s): PHRM2002, PHRM2004

PHRM2012 Experiential / Retail 3 0/0/3

This supervised instructional experience in the clinical setting introduces the student to tasks performed by the pharmacy technologist. Prerequisite(s): PHRM2002, PHRM2004

PHYS1101 Physics & Environment 3 2/1/0

Meets MNTC Goal Areas 2, 3, and 10. This course presents an introduction to the physical characteristics of the earth system and the many systems humanity has developed to support our current technological society. We will also

discuss some of the problems that arise when the needs of our human systems and those of the larger earth system we inhabit come into conflict with each other. We will examine the effects of past and present changes in the earth system and the question of predicting future changes. Prerequisite(s): MATH1020 or equivalent competency

PHYS1105 Fundamental Concepts in Physics 3
3/0/0

Meets MNTC Goal Area 3. A demonstration-based course that is an introduction to selected topics in classical and modern physics. Topics covered will be chosen from these: Measurement and Significant Digits, Graphing, Dimensional Analysis, Mechanics of Motion, Vibrations, Waves, Sound, Electricity and Magnetism, Light and Optics, Atomic Physics and Atomic Spectra, Lasers and Optical Fibers, Nuclear Physics, Radiation. This course may be taken separately from PHYS 1106. The course uses active learning techniques. It uses many demonstrations and instructor-guided small group problem-solving activities. Simple algebra is used to insure that students grasp the concepts. A grade of C or better in the prerequisite, Math 0090 is required. Intended for non-science majors who want an appreciation of and a limited working knowledge in some major areas of physics. Prerequisite(s): MATH0090 with a grade of C or better

PHYS1106 Fund of Physics - Mechanics 3
2/1/0

Meets MNTC Goal Area 3. An introduction to selected topics in classical physics. Topics covered will be chosen from these: Measurement and Significant Digits, Dimensional Analysis, Vectors, Motion, Force, Work and Energy, Momentum, Rotational Dynamics. Introductory-level college algebra is used frequently to insure that students grasp the principles and retain a working knowledge of them. A grade of C or better in the prerequisite, Math 1020, is required. This course may be taken separately from PHYS 1105. Two lectures and one two-hour lab per week. Intended for non-science majors or those who need an introductory-level working knowledge of physics. Prerequisite(s): MATH1020 with a grade of C or better

PHYS1120 Introduction to Astronomy 3 3/0/0

Meets MNTC Goal Area 3. This course includes a description of the universe covering our current understanding of the solar system, lunar and stellar study, interstellar gases, galaxies etc. It focuses on the development of modern astronomy and its techniques, astronomical coordinates, the use of astronomical instruments and recent discoveries in astronomy and cosmology. This non-lab course is designed for science and non-science majors. Prerequisite(s): None

PHYS1401 College Physics I 4 3/1/0

Meets MNTC Goal Area 3. This course gives a theoretical and practical introduction to physics, including kinetics in one and two dimensions, force and dynamics, bodies in equilibrium, work and energy, linear momentum, rotational motion, waves and sound. Lab equipment is used to illustrate these concepts. A mastery of college algebra and some trigonometry is essential for success in this course. The ability to use computers for creating reports and spreadsheets is needed for lab work. PHYS1401 is intended for students majoring in forestry, biological sciences, dentistry, pharmacy, veterinary medicine, physical therapy and other fields related to medicine. Lab is required. Prerequisite(s): MATH1115

PHYS1402 College Physics II 4 3/1/0

Meets MNTC Goal Area 3. This course gives a theoretical and practical introduction to physics. It is a continuation of Physics 1401, College Physics I. However, it may be taken without having taken Physics 1401. Topics include thermodynamics, selected topics in electricity and magnetism, DC and AC circuit theory, light and electromagnetic radiation, atomic physics, spectroscopy,

lasers and photonics, and nuclear physics. Lab equipment is used to illustrate these concepts. A mastery of college algebra and some trigonometry is essential for success in this course. Lab is required. Prerequisite(s): MATH1115

PHYS1411 Engineering Physics I 5 3/2/0

Meets MNTC Goal Area 3. This course gives a theoretical and practical introduction to physics for math, science and engineering majors. It is a calculus-based course. Topics include kinetics of one and two dimensions, force and dynamics, bodies in equilibrium, work and energy, linear momentum, rotational motion, fluids, waves and sound. Lab equipment is used to illustrate these concepts. A mastery of college algebra, as well as knowledge of calculus and trigonometry, is essential for success in this course. The ability to use computers for creating reports and spreadsheets is needed for lab work. Lab is required. Prerequisite(s): Concurrent enrollment in MATH1134

PHYS1412 Engineering Physics II 5 3/2/0

Meets MNTC Goal Area 3. This course is a continuation of Physics 1411, Engineering Physics I. However, it may be taken without having taken Physics 1411. Topics include thermodynamics, selected topics in electricity and magnetism, DC and AC circuit theory, optics, light and electromagnetic radiation, atomic physics, spectroscopy, lasers, photonics, and nuclear physics. Lab equipment is used to illustrate these concepts. A mastery of college algebra as well as knowledge of calculus and trigonometry is essential for success in this course. Lab is required. Prerequisite(s): Concurrent enrollment in MATH1135

PLBG1102 Piping Trades/Job Safety2 1/1/0

This course provides the student with an introduction to the history, structure, and safety practices of the plumbing and pipefitting industry. Topics include history of plumbing and heating, development and structure of the piping industry, plumbing and pipefitting terms, identification of various plumbing and heating systems, fundamentals of rigging, and job safety standards. Prerequisite(s): None

PLBG1104 Bldg Sewers/Drainage Sys 3
1/2/0

This course covers practical experience in the installation of sewers and drain piping by laying out piping trenches, excavating trenches, using a builder's level to establish grade and elevations of the piping, and backfilling trenches in a safe and efficient manner. Prerequisite(s): None

PLBG1106 Piping Grades/Elev/Calcul 3
2/1/0

This course covers the application of mathematics to plumbing calculations in applying code regulations pertaining to proper installation procedures of horizontal drainage piping. The student will use formulas common to the piping industry. Prerequisite(s): None

PLBG1108 Plumbing/Piping Drawings 2
1/1/0

This course provides the student with a technical understanding and skills in blueprint reading needed by plumbers. Topics include drawing interpretation, isometric sketches of piping installations, and drafting mechanical plans of piping for residential construction. Prerequisite(s): None

PLBG1110 Copper Pipe Procedures2 1/1/0

This course provides the student with the technical knowledge and skills for completing copper piping procedures. Topics include safety, appropriate usage, properties of copper, sizes and weights of pipe, tubing, and fittings including flared and compression types, soldering and

brazing techniques for copper pipework. Prerequisite(s): None

PLBG1112 Plastic Pipe Procedures 2 1/1/0
This course provides the student with an understanding and skills for completing plastic piping procedures. Topics include safety, joining drainage, waste, vent, water and distribution piping, chemical usage, and applicable Minnesota State Plumbing Code for plastic piping procedures. Prerequisite(s): None

PLBG1114 Steel Pipe Procedures 2 1/1/0
This course provides the student with an understanding and skills for completing steel piping procedures. Topics include appropriate usage, fittings, safety, tools, equipment, and skill development in cutting, threading, and fabricating steel piping systems. Prerequisite(s): None

PLBG1116 Plumbing Systems 3 2/1/0
This course provides the student with principles and experience for plumbing systems. Topics include construction and testing of sanitary drains, vent systems, and storm drains, installation of piping and fixtures for water supply, function and operation of fixtures and appliances in modern plumbing systems. Prerequisite(s): None

PLBG1118 State Plbg Code Interpret1 1/0/0
This course provides the student with an introduction to the Minnesota State Plumbing Code as it relates to basic plumbing principles, materials, installation limitations, and licensing laws. Prerequisite(s): None

PLBG1120 Plumbing Installation 3 0/3/0
This course provides the student with practical experience in the safe installation of drain, waste, and vent piping systems, residential plumbing fixtures and appliances. Prerequisite(s): None

PLBG1122 Plbg Repair/Service Work2 0/2/0
This course provides the student with practical experiences in repair, maintenance, and servicing of plumbing systems common to a variety of settings. Prerequisite(s): None

PLBG1124 Plumbing Field Internship3 0/0/3
This course is designed for the plumbing student to gain valuable work experience in the plumbing and pipefitting field in conjunction with an industry placement. This three (3) week training program must have the endorsement of the employer and instructor. Only valid, full-time employment in the field of plumbing/pipefitting or in a closely related occupation shall be considered. Prerequisite(s): None

PLBG1126 Oil Burner Service Work 3 1/2/0
This course covers the servicing of the fuel pump, testing and servicing the fuel supply, the oil burner nozzle, basic oil burner controls, combustion testing, and adjusting the oil burner for maximum efficiency. Prerequisite(s): None

PLBG1128 Heat Sys Design & Install 3 1/2/0
This course provides the student with a technical understanding of heating system design and installation. Topics include heat loss calculations, heating systems selection and design, installation techniques, testing procedures, and operation of heating systems. Prerequisite(s): None

PLBG1130 Hydronic Heating System 3 1/2/0
This course provides the student with a technical understanding of hydronic heating system design. Topics include heat loss calculations, heating systems selection and design. Prerequisite(s): None

PLBG1132 Water Treatment/Condition 3 1/2/0
In this course the student will learn water softener service, water treatment in boilers, pH balance, testing of sanitary water and gray water hazards. Prerequisite(s): None

PLBG1134 Advanced Plumbing Blueprints 3 1/2/0
Prerequisite(s):

PLBG1136 Basic Plumbing Code 2 2/0/0
Prerequisite(s):

PLBG1138 Advanced Plumbing Code3 1/2/0
Prerequisite(s):

PLBG1140 Plumbing Service Learning Project3 0/3/0
Prerequisite(s):

PNSG1200 Concepts of Nursing 2 2/0/0
Introduces the nursing concepts of the interactive role of the practical nurse within the health care. Topics covered include the nursing process, critical thinking, nurse patient interaction, documentation, admission/discharge, professionalism, holism, cultural sensitivity in health care, self care of the nurse, teaching and learning concepts. Prerequisite(s): Satisfactory assessment scores in reading, writing, and math or completion of developmental coursework with a grade of "C" or better; successful completion of the nursing assistant course; and admission to the practical nursing program

PNSG1207 Health Promotion I 5 3/2/0
This course introduces the foundations of nursing care across the lifespan. It develops the student's awareness of the clients as individuals and their basic needs as well as technical skills necessary for client care. Topics included are safety, data collection / diagnostics, fluid & electrolytes, nutrition, pre & post operative care, medication administration, comfort, integumentary and cancer. Prerequisite(s): Pre/Corequisites: BIOL2230, PNSG1200

PNSG1209 Family Wellness 3 3/0/0
This course develops the student's awareness of individual health needs within the family relating to maternal child health and the role of the nurse in lifespan health promotion. Topics included are: Maternal Child Health, Community Nursing (Home Health, Public Health, School Health), Lifestyle Choices (communicable diseases, prevention and early detection, risk behaviors). Prerequisite(s): BIOL2230, PSYC2222; Pre/Corequisites: BIOL2232, PNSG1200

PNSG1214 Nursing Pharmacology 2 2/0/0
This course develops the student's awareness of basic pharmacological concepts, drug legislation, drug classifications, therapeutic effects, side effect, nursing considerations of medications, and dosage calculations. Drug reference utilization is included. Prerequisite(s): Pre/Corequisite: BIOL2232; Recommended Pre/Corequisite: PNSG1207

PNSG1216 PN Clinical I 5 0/5/0
This course is an application of the nursing process, documentation, conceptual and foundational skills along with the role of the practical nurse in a variety of clinical settings with selected clients. The course incorporates health theories as related to the needs of the clients in the role of prevention, promotion, and restoration. Prerequisite(s): Due to clinical site requirements, the campuses of Detroit

Lakes, Moorhead, and Wadena have the following Prerequisites: Current Healthcare Provider/Professional Rescuer CPR certification; PNSG1200, PNSG1207; Pre/Corequisites: PNSG1209, PNSG1214, PNSG1217. Due to clinical site requirements, the campus of Fergus Falls has the following Pre/Corequisites: PNSG1200, PNSG1207, PNSG1209 and PNSG1214.

PNSG1217 Health Promotion II 4 2/2/0
This course develops the student's awareness of health promotion across the lifespan. Musculoskeletal, Respiratory, Urinary, Reproductive, and Digestive systems will be covered. Prerequisite(s): PNSG1207; Pre/Corequisite: BIOL2232

PNSG1220 Psychosocial Nursing 3 3/0/0
This course develops the student's awareness of the role of the practical nurse and the application of theories related to coping and adaptations, stress/crisis, therapeutic communication, mental health and illness, grief/loss, death and dying, and individuals with delayed developments throughout the lifespan. Prerequisite(s): PSYC2222; Pre/Corequisite: PNSG1200

PNSG1223 Health Promotion III 4 4/0/0
This course develops the student's awareness of lifespan health promotion. The systems included are Cardiovascular, Immune, Hematological, Neuro/Sensory, and Endocrine. Topics included are: Cardiovascular/Peripheral Vascular, Immune system/Lymph, Hematological, Neuro/Sensory, Endocrine. Prerequisite(s): PNSG1207

PNSG1226 PN Clinical II 4 0/4/0
This course is a continuation and advancing application of the nursing process, documentation, conceptual, foundational, and technical skills along with the role of the practical nurse in a variety of clinical settings with selected clients. The course incorporates health theories as related to the needs of the clients in the role of prevention, promotion, and restoration of health. Prerequisite(s): Pre/Corequisites: PNSG1209, PNSG1216

PNSG1232 Principles of IV Therapy 1 0/1/0
This course focuses on the skills and knowledge needed by the practical nurse in areas of advanced intravenous therapy. This course provides four hours of supervised practice in the college lab setting including a minimum of three individual, supervised, and successful venipunctures, one of which must occur on a human volunteer. This information is presented through the use of lecture notes and college lab demonstration. Evaluation of the student's objective mastery and skill competency will be achieved through the student's successful completion of assignments, tests, and return demonstration. Prerequisite(s): PNSG1216 or current LPN Licensure

PNSG1234 Nursing Roles 1 1/0/0
This course is an overview of nursing within health care. Topics covered include healthcare trends, legal aspects, ethical issues, leadership characteristics, the role of the Board of Nursing, reality shock, nursing professionalism, and other topics integral to the role of the nurse. Prerequisite(s): Pre/Corequisite: PNSG1216

PNSG1236 Practicum 2 0/2/0
This practicum experience provides the opportunity to integrate the knowledge and concepts learned throughout the curriculum. The student will be responsible for multiple patient assignments. Demonstration of safe and effective nursing care is required. Prerequisite(s): Successful completion of all courses required in the Practical Nursing Program (with official grades) PRIOR to entry into practicum

PNSG1240 Transcultural Nursing Care 1 1/0/0
This course will expose nursing students to global diversity and multicultural populations. It will provide nurses with cultural knowledge and to assist with therapeutic interventions, communication techniques to promote holistic care. This course will address viewing one's own personal values and prejudices. Prerequisite(s): Admission to the Practical Nursing program

PSCI1112 Amer National Govern 3 3/0/0
Meets MNTC Goal Areas 2, 5, and 9. This course provides an analysis of the organization, institutions, and functions of the United States government. Prerequisite(s): None

PSCI1113 State and Local Government 3 3/0/0
Meets MNTC Goal Areas 2, 5 and 9. This course provides an analysis of the organization, procedure, and functions of state and local governments and their relationship with national government. Prerequisite(s): None

PSCI2204 Comparative Government 3 3/0/0
Meets MNTC Goal Areas 5 and 8. Provides an introduction to the various systems of government used around the world. Students will compare the processes and institutions of both industrialized and underdeveloped nations, and explore how cultures and histories have affected the development of those political systems. Prerequisite(s): None

PSCI2206 International Politics 3 3/0/0
Meets MNTC Goal Areas 5 and 8. An introduction to the field of International Relations, with an emphasis on the history, structure, and processes of global political relations. Students will study the role of state and non-state actors, international conflict, war, global economic relations, and international organizations. The course will also address current global challenges such as terrorism, arms control, the use of foreign aid in the developing world, and/or other pressing issues facing the international political system. Prerequisite(s): None

PSCI2210 Judicial Politics 3 3/0/0
Meets MNTC Goal Areas 5 and 9. This course provides an overview of the American legal system, including the history and sources of law in the United States, the structure and purpose of local, state and federal courts, and the role that politics play in our legal system. Through this process, the course will focus on the actors in the legal system and the judicial selection process; the importance of the judicial process as it impacts the political environment in the United States; decisions of the United States Supreme Court and the Court's interaction with the executive and legislative branches of government; and/or other topics as determined by the instructor. Prerequisite(s): None

PSCI2220 Intro to Constitutional Theory 3 3/0/0
Meets MNTC Goal Areas 2, 5 and 9. This course focuses on some of the significant constitutional issues that confront policy makers and citizens of the United States. The framework for study is The United States Constitution. Topics covered include: governmental powers, separation of powers, civil liberties, civil rights, and federalism. Prerequisite(s): None

PSYC1101 Human Interaction 3 3/0/0
Meets MNTC Goal Areas 2 and 5. Introductory course emphasizing practical applications of psycho-social concepts, with specific emphasis on personality development, human relations and motivation. Applicable for students in occupational, health-related fields or general education. Prerequisite(s): None

PSYC1107 Environmental Psyc 3 3/0/0
Meets MNTC Goal Areas 2, 5, and 10. An exploration of the scientific study of human behavior and its interrelatedness with the environment. It attempts to describe and explain the behavior of people within their environment and the human responses to environmental issues. The course uses critical thinking on environmental issues and decision making for the future. Prerequisite(s): None

PSYC1200 General Psychology 3 3/0/0
Meets MNTC Goal Areas 5 and 9. This is a comprehensive introductory overview of psychology that studies human behavior and mental processes. Topics include research methods, the history of psychology, theories of human behavior, the physiological basis of behavior, sensation, perception, behavioral learning, memory, problem solving, language development, personality theory, intelligence, the influence of groups on the behavior of individuals, and altered states of consciousness such as sleep and dreams. Prerequisite(s): None

PSYC2220 Abnormal Psychology 3 3/0/0
Meets MNTC Goal Area 5. An introduction to the diagnosis, etiology and treatment of maladaptive behavior. The course will include historical and theoretical approaches, prevention and community resources. Prerequisite(s): PSYC1200, or acceptance into PN or A.D.N. program

PSYC2222 Developmental Psychology 3 3/0/0
Meets MNTC Goal Areas 5 and 9. Study of human development from the life span perspective, including theories, stages and influences of development. The course views the individual from conception to death through physical, social, emotional and mental development. Prerequisite(s): PSYC1200 recommended

PSYC2224 Social Psychology 3 3/0/0
Meets MNTC Goal Areas 5 and 7. Social Psychology includes theories and research involving individual's reactions to others and the influence of other on individuals. Topics include social thinking, social influence and social relations. Prerequisite(s): PSYC1200 or SOC1111

PSYC2226 Behavior & Environmental Management 3 3/0/0
Meets MNTC Goal Areas 2, 5 and 10. An exploration of the scientific study of human behavior and its interrelatedness with the environment. This course describes and explains the acquisition, maintenance and change of behavior with an emphasis on human application within a variety of environmental contexts. This course uses critical thinking on the principles and procedures used to understand and change the environment and human behavior. Prerequisite(s): None

RADT1108 Intro to Rad Tech/Pat Care 3 2/1/0
This course is designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures will be described, as well as infection control procedures utilizing standard precautions. Information confidentiality as it relates to medical records and other forms of health information will be presented. The role of the radiographer in patient education will also be identified. Prerequisite(s): None

RADT1114 Radiographic Proc I 4 2/2/0
This course will provide the student with the knowledge necessary to perform radiographic procedures relative to the thoracic and abdominal organs (including GI studies), upper/lower extremities, and pelvic girdle. Emphasis will be on radiographic terms, anatomy, positioning, manipulation of radiographic equipment and accessories, and related patient

care considerations. Prerequisite(s): RADT1108, BIOL2232

RADT1124 Radiographic Proc II 4 2/2/0
This course will provide the student with the knowledge necessary to perform radiographic procedure relative to the urinary system, the bony thorax, skull, vertebral column and arthology. Emphasis will be on radiographic terms, anatomy, positioning, manipulation of radiographic equipment and accessories, and patient care considerations related to radiography of the urinary system, bony thorax, vertebral column, skull and arthrography. Basic techniques in venipuncture, contrast media types, intravenous medication and emergency response will also be included. Prerequisite(s): RADT1114, RADT1140

RADT1132 Principles of Radiobiology 4 3/1/0
This course is designed to establish a basic knowledge of atomic structure and terminology, and provide an overview of the principles of radiation protection and interaction with living systems. Also presented are the nature and characteristics of radiation, (i.e. its effects on molecules, cells, tissues, and the body as a whole) X-ray production and the fundamentals of photon interactions with matter. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, healthcare organizations, and the responsibilities of the radiographer for patients, personnel and the public are also incorporated. Factors affecting biological response are presented, including acute and chronic effects of radiation. Prerequisite(s): BIOL2232, RADT1140; Corequisite: RADT1124

RADT1140 Radiographic Imaging 4 2/2/0
This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiographic images as well as provide a basis for analyzing those images. Film and electronic imaging with related accessories will be emphasized. Included is the importance of minimum imaging standards, discussion of problem solving technique for image evaluation and the factors that can affect image quality. Class demonstrations/labs are used to demonstrate application. Actual images will be included for analysis. Prerequisite(s): RADT1108, PHYS1105, MATH1114

RADT1144 Radiographic Procedures III 3 2/1/0
This course will provide the student with the knowledge necessary to perform radiographic procedures relative to traumatic injury, surgical and portable radiography. In addition the student will be introduced to the highly specialized studies of the central nervous system, cardiovascular system and cross-sectional imaging. Special imaging equipment, physical settings and techniques used in these highly specialized studies will also be included. Prerequisite(s): RADT1124

RADT1148 Clinical Radiography I 6 0/0/6
Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structural sequential, competency-based assignments in the clinical setting, concepts of team practice, patient centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient before, during and after the radiologic procedure. The emphasis of this clinical rotation will be on radiographic positioning and manipulation of radiographic equipment and accessories, related to radiography of the thoracic and abdominal viscera, upper and lower extremity, shoulder girdle, pelvis, upper GI, lower, GI,

and biliary system. Prerequisite(s): RADT1108;
Corequisites: RADT1114, RADT1140

RADT1158 Clinical Radiography II 6 0/0/6
Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structural sequential, competency-based assignments in clinical setting, concepts of team practice, patient centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure. This clinical course emphasizes the basic radiographic procedures and positioning related to the digestive system, urinary system, the bony thorax, and the vertebral column. The student also is to continue to acquire and build skills in performing radiographic procedures and positioning related to the thoracic and abdominal cavities, and the upper and lower extremities including the shoulder girdle and the pelvis. The student is introduced to skull radiography and portable and trauma radiographic procedures and radiographic exposure factors. Prerequisite(s): RADT1148; Corequisite: RADT1124

RADT1168 Clinical Radiography III 6 0/0/6
Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structural sequential, competency-based assignments in clinical setting, concepts of team practice, patient centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure. This clinical course emphasizes the basic radiographic procedures and positioning related to the skull, facial bones, paranasal sinuses, and detailed areas of the skull. The clinical experience provides for an introduction to surgery, evening clinical hours, and working independently. Prerequisite(s): RADT1158; Corequisite: RADT1144

RADT2222 Imaging Equipment 3 2/1/0
This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment (including computed tomography) requirements and design including circuitry of the x-ray machine. The content will also provide a basic knowledge of quality control. Computer applications in the radiologic sciences related to image capture, display, storage and distribution are presented as well. Prerequisite(s): RADT1132, RADT1140

RADT2244 Legal/Ethical Issues in Rad Tech 3 3/0/0
Content is designed to provide a fundamental background in ethics. The historical and philosophical basis of ethics, as well as the elements of ethical behavior will be discussed. The student will examine a variety of ethical issues and dilemmas found in clinical practice. An introduction to legal terminology, concepts and principles will also be presented. Topics will include misconduct, malpractice, legal and professional standards and the ASRT scope of practice. The importance of proper documentation and informed consent is emphasized. Prerequisite(s): None

RADT2248 Clinical Radiography IV 6 0/0/6

Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structural sequential, competency-based assignments in clinical setting, concepts of team practice, patient centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure. This clinical course provides the student with the opportunity to function more independently in all areas of basic radiography, and to develop clinical skills in regular radiographic areas and procedures, with continuing experience in trauma and surgical procedures. The student will be exposed to special procedures, and will begin rotations through the specialized areas of nuclear medicine, radiation therapy, computerized topography, ultrasound, and magnetic resonance imaging. Prerequisite(s): RADT1168

RADT2250 Radiographic Pathology 3 3/0/0
This course is designed to introduce theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Etiology, pathophysiologic responses, clinical manifestations, radiographic appearance and management of alterations in body systems will be presented. Prerequisite(s): BIOL2232

RADT2258 Clinical Radiography V 7 0/0/7
Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structural sequential, competency-based assignments in clinical setting, concepts of team practice, patient centered clinical practice and professional development shall be discussed, examined and evaluated. Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement shall ensure the well-being of the patient preparatory to, during and following the radiologic procedure. This clinical course emphasizes the development of independence, discretion, and judgment while performing basic radiographic procedures. It provides the student with the opportunity to function as a nearly registry eligible radiographer. The student is expected to correlate all clinical and didactic experiences while demonstrating a high degree of proficiency and efficiency. Prerequisite(s): RADT2248

RADT2280 Board Review 2 2/0/0
This course is designed to prepare the student to write the national board exam administered by the American Registry of Radiologic Technologists (ARRT). A review of all course work presented in the program with an emphasis on the ARRT exam specifications will be presented. Prerequisite(s): All program coursework or program director approval.

REFR1102 Refrigeration Principles 3 3/0/0
This course covers the theory and operation and service procedures of the basic refrigeration system including the four main components of the system: compressor, condenser, evaporator, metering device, and domestic refrigeration. Student will develop troubleshooting techniques using computer and Omnidata refrigerator simulators. Prerequisite(s): None

REFR1104 Refrigeration Lab 4 0/4/0
This course covers working with the tools and equipment of the refrigeration trade. The student receives hands-on experience working with refrigeration tubing, refrigerators,

freezers and operation of refrigeration and electrical Omnidata, computer operated simulators. Prerequisite(s):
Pre/Corequisite: REFR1102

REFR1106 Electrical Fundamentals 3 3/0/0
This course covers electrical theory of Ohm's law, inductance, capacitance and electrical design, operation, use and construction of domestic refrigeration, electric motors. Prerequisite(s): None

REFR1108 Electrical Lab 3 0/3/0
This course covers the hands-on application of electrical theory and practice of Ohm's law, inductance, capacitance, control operation, building of a startbox and troubleshooting domestic refrigeration while using computers and various tools and meters used in the service field. Prerequisite(s):
Pre/Corequisite: REFR1106

REFR1110 Refrig, A/C & Htg Prin 3 3/0/0
This course covers refrigeration theory of domestic refrigeration and introduction theory to commercial refrigeration and residential heating and air conditioning equipment including controls and accessories. Prerequisite(s): REFR1104, REFR1108

REFR1112 Refrig, A/C & Htg Lab 3 0/3/0
This course covers the operation and service procedures of domestic refrigeration and an introduction to residential heating and air conditioning and commercial refrigeration equipment. Prerequisite(s): Pre/Corequisite: REFR1110

REFR1114 Refrigeration Electrical Circuits 4 2/2/0
This course will consist of the design of electrical drawings and troubleshooting of different refrigeration and heating equipment. Prerequisite(s): REFR1104, REFR1108

REFR1130 Refrigeration Mgmt 2 2/0/0
This course covers refrigerant management techniques that is approved by EPA section 608 of the clean air act. We will cover environmental concerns, recovery, recycling and reclamation of different refrigerants. After completion the students will be give the option of taking the EPA Refrigerant Certification Exam. Prerequisite(s): None

REFR1140 Gas Heating 2 1/1/0
This course covers heating theory of gas furnaces. The student receives basic hands-on service experience with gas fired furnaces and refining of troubleshooting techniques with gas furnace simulators. Prerequisite(s): REFR1108

REFR1148 Resid AC, Theory, Applic, Cert 6 3/3/0
This course covers residential air conditioning systems consisting of window, through-the-wall, package-unit and split-system air conditioning. The student receives classroom theory of air conditioning and hands-on service techniques, installation of split system, and training for refrigerant certification. EPA Refrigerant Certification testing will be offered in the course. Prerequisite(s): REFR1110, REFR1112, REFR1114

REFR2202 Commercial Refrig & A/C Prin 4 4/0/0
This course covers principles of heat loads, equipment sizing and placement, piping, and use of accessories as applied to larger air conditioning and refrigeration systems. Safety is emphasized. Prerequisite(s): REFR1110

REFR2204 Commercial Refrig & A/C Lab 3 0/3/0
This course covers the practical application to gain experience in installation of larger refrigeration and air conditioning equipment. Operation, troubleshooting and repair is included. Safety is emphasized. Prerequisite(s):
Pre/Corequisites: REFR1112, REFR2202

REFR2206 Commercial Electrical Prin 3 3/0/0
This course covers fundamentals of commercial refrigeration and air conditioning electrical application to larger systems. Includes operation of switching and controlled devices. Safety is emphasized. Prerequisite(s): REFR1106

REFR2208 Commercial Electrical Lab 3 0/3/0
This course covers the practical application of electrical principles to air conditioning and refrigeration systems, including troubleshooting, repairing for larger systems from classroom drawings. Safety is emphasized. Prerequisite(s): Pre/Corequisites: REFR1108, REFR1114, REFR2206

REFR2210 Adv Refrigeration Prin 3 3/0/0
This course prepares students for more advanced lab sessions on commercial refrigeration systems. Students need to have a very good understanding of commercial refrigeration and electrical systems. Safety is emphasized. Prerequisite(s): REFR2202

REFR2212 Adv Refrigeration Lab 3 0/3/0
This course gives students the opportunity to work on more complicated refrigeration systems through individual or paired groups on field trips, off-site meetings and hands-on projects. Safety is emphasized. Prerequisite(s): REFR2202, REFR2204

REFR2214 Adv Electrical Applications 4 2/2/0
This course covers the application of electrical principles to the more complex systems found in warehouse, hospital, supermarket refrigeration systems. Safety is emphasized. Prerequisite(s): REFR2208

REFR2216 Refrigeration Internship 3 0/0/3
Projects, reports, and discussions are coordinated to relate to the student's employment situation. Employment in an approved refrigeration/air conditioning occupation. A training agreement and an evaluation are required of each student. Prerequisite(s): Instructor approval

REFR2220 HVAC Troubleshooting 3 1/2/0
This course is designed to build student confidence in troubleshooting heating, ventilating, air conditioning systems and motor control circuits. While in the course, the student will learn troubleshooting techniques using simulators and computer generated simulators and actual air conditioning equipment. Prerequisite(s): None

REFR2222 Electronic Controls 3 1/2/0
This course covers the fundamentals of solid-state control devices; thermostats, vacuum indicators and programmable logic controllers, as applied to HVAC-R industry. Prerequisite(s): REFR1106

REFR2240 Oil Heat 2 1/1/0
This course covers oil heat theory primarily of the gun-type burner. The student receives hands-on experience in testing, analyzing, and adjusting oil furnaces. Prerequisite(s): None

REFR2242 Heat Load Estimating 2 1/1/0
This course covers heat and cooling load estimating for residential and light commercial buildings. Different manufacturer's worksheets, the standard manual J, and computerized methods of estimating are used. Prerequisite(s): None

SALE1160 Specialty Seminars 3 3/0/0
This course acquaints students with the diverse duties, responsibilities, required paperwork, daily administrative and self-management activities of a typical "outside" salesperson. A variety of sales resource speakers discuss their careers with the students. A book is summarized and various videos viewed. Prerequisite(s): None

SALE1162 Product Knowledge Development 3 2/1/0
This course is designed to assist students with developing product knowledge, determining selling tactics, developing internal/external sales support, identifying training needs, prospecting sources, comparing internal/external competition and service policies. Prerequisite(s): None

SALE1164 Personal Finance 2 2/0/0
This course covers "personal" finance as it applies to "everyday financial activities." Students are made aware of the importance of financial planning, risk management, budgeting, and how and when to cut costs, save, and invest. Prerequisite(s): None

SGDT1100 Cmpt Layout & Design I 4 2/2/0
This course introduces the student to the operation of industry standard sign software and its application to sign design. The course will focus on software usage for the fundamentals of sign layout and vinyl design with letter cutting. Prerequisite(s): None

SGDT1102 Freehand Lettering 4 1/3/0
This course is an introduction to the art and skill of freehand lettering. This course will emphasize basic letter layout and structure, brush control, and paint application for various letter styles. Prerequisite(s): SGDT1100

SGDT1104 Banners & Showcard Tech 2 1/1/0
This course will introduce students to the fundamentals of effective showcard/banner layout and letter application. Student will letter with different mediums on a variety of surfaces such as paper, showcard and vinyl. Prerequisite(s): SGDT1102

SGDT1106 Wall Graphics 2 1/1/0
The students in this course will be exposed to lettering application on a variety of wall surfaces. Emphasis will be on a working safely from ladders and scaffolding in varying environmental conditions. Prerequisite(s): SGDT1102

SGDT1108 Specialty Sign Applic I 2 1/1/0
This course will introduce students to a variety of sign enhancements. The emphasis will be on developing air brushing skills along with glass etching techniques. Prerequisite(s): SGDT1100

SGDT2200 Cmpt Layout & Design II 4 2/2/0
This course covers advanced software application for the development of sign layout and graphics. Students will be exposed to digital print and cut techniques on vinyl, as well as, inputting and digitizing images. Prerequisite(s): SGDT1100

SGDT2202 Commercial Signage 6 2/4/0

This course covers a variety of sign preparation and decorating techniques for commercial sign applications. This course will emphasize the design and production of effective signage on a variety of surfaces. Prerequisite(s): SGDT1106, SGDT2200

SGDT2204 Window Graphic Tech 2 1/1/0
This course covers surface preparation of glass substances along with interior and exterior applications. The emphasis of this course will be to decorate on the surface and in reverse with paint and vinyl. Prerequisite(s): SGDT1100, SGDT1102

SGDT2206 Vehicle Graphic Tech 2 1/1/0
This course will introduce students to design and layout on a variety of vehicle applications. The emphasis will be graphic development and lettering for visual impact on a "rolling billboard". Prerequisite(s): SGDT1102, SGDT1108, SGDT2200

SGDT2208 Specialty Sign Applic II 2 1/1/0
This course will introduce students to advanced sign enhancements. The emphasis will be on surface gold leaf application, sand-blasting on wood, high density foam applications. Prerequisite(s): SGDT1102, SGDT1108, SGDT2200

SOC1111 Intro to Sociology 3 3/0/0
Meets MNTC Goal Areas 2, 5, and 7. This course is an introduction to the study of societies and of the social factors that influence individual and group behavior. The course incorporates sociological and other critical thinking models for the investigation of various components of social life: culture, socialization, social organization, social stratification, social institutions, populations dynamics, and social change. Prerequisite(s): None

SOC1113 Social Problems 3 3/0/0
Meets MNTC Goal Areas 5 and 9. This course stresses acquiring an enriched understanding of social issues and prospects for improving them. Students will investigate social trends and factors affecting social problems, contrast sociological perspectives of social problems, deal constructively with information and ideas associated with social issues, examine the ethical dimensions inherent in problem definition and intervention design, and define personal and public responsibilities in relation to select social issues. Social issues covered may include: parenting and family issues; crime, delinquency and violence; aging, health, and health care issues; poverty and inequality; cultural pluralism; urban growth and population; environmental issues; sexual issues; global issues. Prerequisite(s): None

SOC1114 Social Problems Field Experience 1 1/0/0
Meets MNTC Goal Area 5. SOC1114 emphasizes an enriched understanding of social issues and prospects for improving them through direct work/research in a sociological setting. In an actual field setting, students will participate in, and make observations of, social intervention. These observations will be critically processed in relation to key sociological concepts. The nature of field experience necessitates that students be prepared to be off-campus and to participate outside of regular class hours (20-25 hours). Students may need transportation to field sites. Additional expenses may be incurred. Course may be repeated for credit. Prerequisite(s): Completion of or concurrent enrollment in SOC1113, or consent of instructor.

SOC2211 Marriage and Family 3 3/0/0
Meets MNTC Goal Area 5. The course examines the multitude of family and intimate relationship structures evident both now and historically. It covers how family

structures and processes impact individuals and how family structures are shaped by social institutions and cultural norms and values. Students investigate the factors which encourage stable intimate relationships versus those which encourage dysfunction and pathology. It is recommended that students have completed three credits of fundamental sociology and possess strong reading and writing skills. Prerequisite(s): None

SOC2215 Criminology 3 3/0/0
Meets MNTC Goal Areas 2 and 5. The course will provide a thorough overview of the field of criminology. A study of the theories which attempt to define and explain crime, criminal behavior and society's reactions to crime, including a focus on juvenile delinquency, the judiciary process and penology. Prerequisite(s): None

SOC2216 Minority Group Relations 3 3/0/0
Meets MNTC Goal Areas 5 and 7. This course examines the broad and inclusive concept of diversity; a topic which at the end of the twentieth century in the United States is full of ambiguities and conflicts. It endeavors to combine subjective interpretations of diversity with sociological perspectives to better prepare students to participate in and appreciate the increasingly diverse culture in which we live. Commonly cited features of diversity which will receive primary coverage are race and ethnicity. Prerequisite(s): None

SOC2217 Rural Sociology 3 3/0/0
Meets MNTC Goal Areas 5 and 7. The course is a sociological study of the forces which have transformed the rural setting and impact future trends in rural America. The course will also focus on the diverse cultural heritage contributing to the rich cultural mosaic found in rural scenarios. Prerequisite(s): None

SPAN1111 Beg Spanish 4 4/0/0
This course provides basic instruction in the correct form and use of the Spanish language. Study concentrates on oral and written comprehension of simple Spanish, verbal expression of personal themes, pronunciation and grammar. Prerequisite(s): None

SPAN1112 Beg Spanish II 4 4/0/0
This course provides continued basic instruction in the correct form and use of the Spanish language. Study concentrates on oral and written comprehension of simple Spanish, verbal expression of personal and extended themes, pronunciation and grammar. Prerequisite(s): SPAN1111 or by placement test

SPAN1151 Vocational Spanish I 1 1/0/0
This course provides students with the opportunity to use Spanish for specific communicative goals within a vocational focus. The situational approach will focus on words and phrases needed to cope with everyday, workplace situations, and will vary according to class need. This course is designed for students with little or no prior language experience and is Part 1 of a 3-part advancing sequence. This course may be taken more than once as the topics change. Topics may be: Survival Spanish for Probation Officers; Survival Spanish for Paramedics and EMT's; Survival Spanish for Law Enforcement Officers; Emergency Spanish for Paramedics and EMT's; Survival Spanish for Correctional Staff; Emergency Spanish for Firefighters; Survival Spanish for Dental Staff; Survival Spanish for School Administrators, Teachers & Support Staff; Office Spanish for Secretaries and Receptionists; Doing Business in Latin America; Spanish for the Physician's Office; or Spanish for Nursing. Only one vocation will be emphasized per section. This course is not intended to meet the language requirement of a particular course of study. Prerequisite(s): None

SPAN1152 Vocational Spanish II 1 1/0/0
This course provides students with the opportunity to increase their use of Spanish for specific communicative goals within a vocational focus. The situational approach will focus on additional words and phrases needed to cope with everyday, survival situations, and will vary according to class need. This course is designed for students with little Spanish language experience and is Part 2 of a 3-part advancing sequence. This course may be taken more than once as the topics change. Topics may be: Survival Spanish for Probation Officers; Survival Spanish for Paramedics and EMT's; Survival Spanish for Law Enforcement Officers; Emergency Spanish for Paramedics and EMT's; Survival Spanish for Correctional Staff; Emergency Spanish for Firefighters; Survival Spanish for Dental Staff; Survival Spanish for School Administrators, Teachers & Support Staff; Office Spanish for Secretaries and Receptionists; Doing Business in Latin America; Spanish for the Physician's Office; or Spanish for Nursing. Only one vocation will be emphasized per section. This course is not intended to meet the language requirement of a particular course of study. Prerequisite(s): SPAN1151 or consent of instructor

SPAN1153 Vocational Spanish III 1 1/0/0
This course provides students with the opportunity to increase their use of Spanish for specific communicative goals within a vocational focus. The situational approach will focus on enlarging the number and complexity of words and phrases needed to cope with everyday, survival situations, and will vary according to class need. This course is designed for students with some Spanish language experience and is Part 3 of a 3-part advancing sequence. This course may be taken more than once as the topics change. Topics may be: Survival Spanish for Probation Officers; Survival Spanish for Paramedics and EMT's; Survival Spanish for Law Enforcement Officers; Emergency Spanish for Paramedics and EMT's; Survival Spanish for Correctional Staff; Emergency Spanish for Firefighters; Survival Spanish for Dental Staff; Survival Spanish for School Administrators, Teachers & Support Staff; Office Spanish for Secretaries and Receptionists; Doing Business in Latin America; Spanish for the Physician's Office; or Spanish for Nursing. Only one vocation will be emphasized per section. This course is not intended to meet the language requirement of a particular course of study. Prerequisite(s): SPAN1152 or consent of instructor

SPAN2211 Intermediate Spanish 4 4/0/0
Meets MNTC Goal Area 8. SPAN2211 is the first semester of Intermediate Spanish. Reading, writing, listening and speaking continue to be developed through a focus on historic, political, cultural and artistic expressions of the Spanish-speaking world. Grammar from Beginning Spanish 1112 is lightly reviewed. New grammatical skills include the perfect tense of the indicative mood and simple tenses of the subjunctive mood. Prerequisite(s): SPAN1112 or consent of instructor

SPAN2212 Intermediate Spanish II 4 4/0/0
Meets MNTC Goal Area 8. SPAN2212 is the second semester of Intermediate Spanish. Reading, writing, listening and speaking continue to be developed through a focus on historic, political, cultural and artistic expressions of the Spanish-speaking world. Grammar from Intermediate Spanish 2211 is further developed to include the simple and perfect tenses of the indicative and subjunctive moods. Prerequisite(s): SPAN2211 or consent of instructor

SPCH1112 Small Group Communication 3 3/0/0
Meets MNTC Goal Areas 1 and 2. This course focuses on communication issues in small groups and the important role that small-group work plays in business today. An emphasis will be placed on improving communication skills for successful teamwork, group cohesiveness, and the responsibility to group goals and tasks. Students will be provided with opportunities to build their group

communication skills through practice. Prerequisite(s): None

SPCH1114 Intro to Public Speaking 3 3/0/0
Meets MNTC Goal Area 1. This course clarifies the process of oral communication, clarifies the basic principles of public speaking, and allows the student to increase the application of these principles both while speaking and while listening. Prerequisite(s): Assessment into ENGL1101 or successful completion of ENGL0050

SPCH1150 Interpersonal Comm 3 3/0/0
Meets MNTC Goal Area 1. This course will focus on helping the student improve his/her ability to communicate effectively in one-to-one dyadic encounters by providing experience-based instruction. Extensive in-class out-of-class analyses allow the student to examine his/her own and other's informal social interactions. The long-term goal is for the student to be able to apply interpersonal communication theories to daily interactions and draw his/her own conclusions about the effectiveness of interpersonal communication skills in the specific interaction. Prerequisite(s): Assessment into ENGL1101

SPCH1160 Forensics 1 1/0/0
MSCTC's competitive speech program provides practical speaking experience for intercollegiate tournaments and on-campus activities. The purpose of forensics is to provide a wide range of opportunities designed to increase interpersonal communications skills, public speaking, and interpretation abilities. Prerequisite(s): None

SPCH2216 Intercultural Comm 3 3/0/0
Meets MNTC Goal Area 7. This course is designed for anyone whose life is likely to include encounters with people from cultures or co-cultures different from his/her own; that includes everyone. The course will deal both with communication between international cultures and communication between co-cultures within the United States. Prerequisite(s): ENGL1101

SPCH2218 Oral Interpretation 3 3/0/0
Meets MNTC Goal Area 6. This course is intended to introduce students to the oral delivery of literature, the principles and techniques of selecting appropriate literary selections, and the meaning of literature. Prerequisite(s): SPCH1113 or SPCH1114

SUPL1110 Budget & Financial Mgmt 3 3/0/0
This course is designed for non-financial personnel who need to understand the basic theories of finance and apply them to practical business decisions. Key topics include learning the generally accepted accounting and budgeting principles, financial statement analysis, analysis of return on investment - cost/benefit ratios, analysis of annual reports. Prerequisite(s): None

SUPL1118 Lead & Facilitate Teams 3 3/0/0
This course will address the role of supervisor, manager, and leader as a leader and facilitator of work teams. Topics will include planning work teams, creating effective team interaction, identifying characteristics of successful teams, and demonstrating skills and behaviors of both team leader and team member. Prerequisite(s): None

SUPL1120 Covey's 7 Habits of Highly Effective People 2 2/0/0
This course is designed to prepare participants to become more effective in all aspects of their life. It contains material that is foundational for success in any leadership venture, in that it identifies the common habits that all effective leaders share. The content will cover identification of correct principles as a tool for monitoring one's behavior, the change process, the balance between production and production

capability, personal responsibility, personal vision, time management, conflict resolution, communication, team work, and maintaining a balance between the four dimensions of life, both personally and organizationally. Prerequisite(s): None

SUPL1122 Covey's 4 Roles of Leadership 1 1/0/0
The 4 Roles of Leadership, developed by the Stephen R. Covey organization, is a course designed to help potential leaders recognize the key roles they must assume in order to effectively lead their work groups and/or organizations. The differences between leadership and management are articulated, along with the key questions each leadership role must answer for its group, as well as the principles effective leaders apply with respect to each role. The content of this course will teach students how to define and develop vision and strategy, mission and purpose; how to align process, structure, information, decisions, people, and rewards so as to best execute the overall strategy. Participants will also learn how to create conditions where others in the organization can succeed, including effective use of leadership style and the creation of win-win agreements; and the significance of leading by example. Prerequisite(s): None

SUPL1124 Covey's 4 Disciplines of Execution 1 1/0/0
This course covers the key elements of time management and effectiveness in setting and achieving goals. It provides a framework to help participants distinguish between urgent and important and make sure the most important priorities are addressed. It introduces the keys to productivity and how to maximally achieve results through effective focus on the important. Participants will also learn how to identify and track progress toward their most significant goals. This course additionally provides participants with a planning system tool that will assist them in managing their time better and following through with their goals. Prerequisite(s): None

SUPL2212 Linking People & Productivity 3 3/0/0
Participants will learn leadership skills that positively impact organizational productivity. They will learn to use the skills of feedback, recognition, trust, conflict resolution, team building, and others. It is through the use of these skills and behaviors that leaders will create and build effective relationships; thus, strategically improving the bottom line. Real-world examples and practical applications engage participants and help them apply these skills to their own leadership responsibilities. Prerequisite(s): None

SUPL2214 Supervisory Ldrship Intern 3 0/0/3
This course provides participants with on-the-job opportunities to explore and/or practice specific areas of interest related to supervisory leadership. Internship opportunities fall under five broad categories of: (1) Quality Planning and Implementation, (2) Project Management, (3) Human Relations and Resource Management, (4) Workplace Improvement, and (5) Financial Analysis and Budgeting Processes. Prerequisite(s): Approval of plan(s) developed by the participant

SW2250 Intro to Social Work/Social Welfare 3 3/0/0
This course introduces to American social welfare institutions, the historical and philosophical bases of social welfare services, and current social issues and problems. Programs and agencies developed to deal with these issues will be examined. Students will be introduced to social work theories and intervention methods used by social workers. Career paths in social work will be identified. Meets three hours per week. Prerequisite(s): None

TECH1100	Fund of Telecommunications	2	1/1/0	This course covers cable television and telephone fundamentals by introducing the student to the technical concepts, equipment, and test procedures involved with the generation and distribution of telecommunication signals; and the basic concepts that govern the operation of today's telecommunication systems. Prerequisite(s): None	This course covers is designed to help the student gain awareness of and improve upon everyday relationships with customers, co-workers, supervisors, and the general public as they pertain to the telecommunication workplace. This course is a study of appropriate attitudes, images, and perceptions a technician needs to be concerned with when employed with a company that is very visible to the public eye. Emphasis will be placed on dealing with the public, co-workers, representing your employer, and ethical behavior on and off the job. Prerequisite(s): None				
TECH1104	Data Communications	2	1/1/0	This course provides an induction to data communications. Topics include overview of transmission systems, standards and protocols, communication software, communication hardware, local and wide area networks. Prerequisite(s): None	TECH1190	Telecom Srvc & Installation Intern	3	0/0/3	This course provides the student with the opportunity to utilize the knowledge and skills acquired during their recent education/training at an approved telecommunication site. Prerequisite(s): TECH1100
TECH1106	Adv Data Communications	2	1/1/0	This course is a study of Ethernet LAN and WAN problems and solutions. The course covers LAN Ethernet switch and WAN router specifications and configuration. The student will practice configuration and troubleshooting of networking equipment. Prerequisite(s): TECH1104	TECH2200	BISCI Installer Level I Cert	2	1/1/0	This course covers the codes and standards that have been set up by the TIA/EIA for telecommunication network cabling in public and private facilities. Topics include standards and codes for: structured cabling specifications, firstopping, bonding, grounding, terminating, labeling, testing, and safety in the installation of voice, data, and video networks. Prerequisite(s): None
TECH1110	Pole Climbing	2	0/2/0	This course will examine safe pole climbing procedures so the student will become proficient in ascending, performing, and descending poles. Prerequisite(s): None	TECH2230	Telecommunications Systems	3	2/1/0	In this course the student looks at different types of telecommunication systems from the plain old telephone service to the new digital hybrids. The student will become familiar with design and installation of analog and digital systems as they pertain to the telecommunication world. Prerequisite(s): TECH1100
TECH1120	Cabling & Termination	4	1/3/0	This course covers fundamental principles for cable splicing. Topics include cable construction, basics of transmissions, color coding, cable lay-ups and closures, and splicing of cables used in the telephone and cable television industries. The student will learn procedures in installing cable TV and telephone drop wire to customer homes; including proper grounding and grounding techniques, safety, connector installation, cable routing, methods of attachment, dwelling entry, and the types of drop cable and their specific uses are discussed. Troubleshooting and maintenance of customer drops are discussed. Prerequisite(s): None	TECH2240	Broadband Sys Dsgn & Analysis I	3	1/2/0	In this course the student will activate, test, and balance a cable television system using various types and brands of equipment. The student will become familiar with the equipment used in signal transportation; learn the techniques involved with balancing and troubleshooting various types and brands of line amplifiers using a variety of test equipment. The student will learn designing of a complete CATV system - feeder and trunk lines with proper location of all active and passive devices. Prerequisite(s): TECH1100
TECH1126	Telecom Outside Plant Const	4	1/3/0	This course covers basic construction of a pole line, aerial suspension strand, underground cable construction, locating of buried plant, and aerial plant cable construction for the telephone and cable television industries. Prerequisite(s): None	TECH2242	Broadband Sys Dsgn & Analysis II	3	1/2/0	In this course the student will design and lay out a cable television system to industry specifications, become familiar with headend signal processing equipment and techniques, troubleshoot a broadband cable television system, and use various test equipment to monitor system performance. Prerequisite(s): TECH2240
TECH1128	Fund Telecom Outside Plant Const	2	1/1/0	This course covers construction fundamentals of aerial and underground telecommunication systems used by the telephone and cable TV industries. Proper maintenance of construction equipment and locating underground cables is also covered. Prerequisite(s): None	TECH2250	Business Com Sys I	3	1/2/0	In this course the student will learn the fundamentals of the business communication systems used in today's fast paced business world. The student will learn design, installation and maintenance of different types of analog and digital business communication systems. Prerequisite(s): TECH1100
TECH1130	Fiber Optics	2	1/1/0	This course covers fiber optics starting with transmission of light to installation and repair of operating systems. A student will be able to analyze problems in a fiber optic system and make effective repairs using appropriate test equipment. Prerequisite(s): None	TECH2252	Business Com Sys II	3	1/2/0	In this course the student will perform site survey for the installation and activation of both analog and digital voice mail systems. After completion of survey, student shall design a workable solution for different customers needs ranging from the small business to large corporate customers. Prerequisite(s): TECH2250
TECH1140	Home Entertainment & Design	3	1/2/0	This course will provide the student with the knowledge and skills needed to design and install audio, video, computer network, and surround sound systems in the home. Prerequisite(s): None					
TECH1150	Telecom Customer Service	2	2/0/0						

TECH2270 Adv Electronic Communications 3
2/1/0
This course will deal with microwave-multiplex theory, installation, repair, and maintenance; the study of transmission and reception of satellite, TV, and microwave signals; and the concepts of cellular communications switching and transmission. The student will also learn how a composite signal is developed. Prerequisite(s): ELTR1180

TECH2280 Central Office Fundamentals 3
1/2/0
This course covers central office design, installation and maintenance. Power plants and grounding are also covered. Prerequisite(s): TECH1100

TECH2290 Telecommunications Tech Intern 3
0/0/3
This course provides the student with the opportunity to utilize the knowledge and skills acquired during their recent education/training at Northwest Technical College Telecommunications department at an approved telecommunications site. Prerequisite(s): TECH1100

TECH2292 Telecom Engineering Intern 1
0/0/1
This course provides the student with the opportunity to utilize the knowledge and skills acquired during their recent education/training at an approved telecommunications site. Prerequisite(s): TECH1100

TECH2294 Telecommunications Tech Intern 2
0/0/2
This course provides the student with the opportunity to utilize the knowledge and skills acquired during their recent education/training at Northwest Technical College Telecommunications department at an approved telecommunications site. Prerequisite(s): TECH1100

THPY1110 Massage Tech/Ethics 3 2/1/0
This course provides students with an in-depth knowledge of massage techniques. Emphasis will be on the application of the basic massages strokes and their variations. Students will learn proper draping and positioning techniques and recommended client protocol. In regards to ethics, a variety of topics will be discussed and explored in order to help the students form their own written code of ethics. Prerequisite(s): None

THPY1118 Kinesiology 3 2/1/0
This course teaches students to identify the location and movements of skeletal muscles. Students will identify bones and bony landmarks. They will learn muscle origin and insertion using specific bony landmarks as points of anatomical reference. They will learn directional terms and terms of movement. Students will learn to identify and describe the movement of each muscle. Prerequisite(s): THPY1110

THPY1123 Integrative Massage 2 1/1/0
This course introduces students to a variety of specialized modalities of massage. Specialization in the massage industry increases the marketability of therapists and is strongly recommended. Students will be familiar with the basic principles of each modality presented. In addition to lectures presented by the instructor, students will be responsible for researching modalities of particular interest to them. Prerequisite(s): None

THPY1130 Advanced Massage 2 1/1/0
This course prepares massage students to execute advance massage techniques. Students will learn optional techniques available to clients including abdominal massage, facial massage and massage of the gluteals. Massage for special

populations will be discussed as well including massage for the elderly and chair massage. Prerequisite(s): THPY1110

THPY1135 Deep Tissue Massage 2 1/1/0
This course prepares the massage student to apply deep muscular therapy techniques. Emphasis will be placed on the use of proper body mechanics and the use of proper techniques to deliver deep tissue massage safely. Trigger point therapy will be used extensively in this course. Students will learn the use of massage tools. Individual muscles will be isolated and massaged with parallel and cross fiber techniques. Prerequisite(s): THPY1118

THPY1142 Student Clinic 3 0/3/0
This course provides students with an opportunity to develop the practical skills necessary to administer professional massage therapy treatments. In addition to performing massage treatments on the general public, students will also perform seated chair massage at scheduled on-site events as arranged by the instructor. This course provides students with an opportunity to develop the practical learned skills needed to work as a professional massage therapist. Prerequisite(s): THPY1110

THPY1146 Certification Prep 2 2/0/0
This course is designated to prepare the students to take the National Certification Examination (NEC) issued by the National Certification Board of Therapeutic Massage & Bodywork (NCBTMB). Students will review Anatomy, Physiology, Kinesiology, Clinical Pathology, Massage Theory, Massage Assessment and Practice, Adjunct Techniques and Business Practices. Students will be taught to identify the areas in which they need the most review and use outside texts to help them maximize their learning potential. A study guide and sample test questions will be used to exemplify the NCE. Students will be encouraged to apply to take the National Certification Examination after they receive their diploma. Prerequisite(s): THPY1135

THPY1148 Sports Massage & Hydro2 1/1/0
This course covers the fundamentals of hydrotherapy and sports massage. Students will be taught to perform massage treatments specific to individual sports. The course addresses pre-, post- and event- sports massage techniques as well as rehabilitative massage for injuries and maintenance massage.

Students will also be instructed on the use of hydrotherapy techniques. Hydrotherapy will address the application of water as treatment in each of its three forms, hot and cold treatments, hydrocollators, body wraps and salt glows. These techniques can be implemented into Swedish massage treatments and Sports Massage. Prerequisite(s): THPY1110

THPY1150 Business Development 2 2/0/0
This class will introduce the massage therapist to the business aspects of operating a massage practice. Topics include client scheduling, budgeting, bookkeeping, marketing and massage related business issues. The course will detail client/therapist business concerns and help to prepare each student to identify and solve these concerns in a professional manner. Students will learn to write and execute a detailed, workable massage business plan. Prerequisite(s): None

THPY1156 Massage Pathophysiology 3
3/0/0
This course discusses common pathologies that massage therapists are likely to encounter in their professional practices. It also discusses whether these conditions are indicated or contraindicated for massage and describes how they may be treated. Prerequisite(s): Pre/Corequisite: THPY1110

THTR1105 Beg Acting 3 3/0/0
Meets MNTC Goal Area 6. Development of basic acting skills and techniques through the use of acting exercises, improvisation, and scenes from plays. Prerequisite(s): None

THTR1111 Intro to Theater 3 3/0/0
Meets MNTC Goal Area 6. This course is intended for all students who desire a greater appreciation of theatre as an artistic, cultural, and social force. It would focus on major developments in western theatre including theatre architecture, use of sets, costumes and lighting, and the changing roles of theatre personnel (actors, playwrights, directors, designers, and technicians). This course will use a textbook and augment the classroom lecture/discussion and student presentations with audio-visual aids, a field trip to other theatres, and attendance at least one performance of a play. Prerequisite(s): None

THTR1112 Intro to Stagecraft 2 2/0/0
Meets MNTC Goal Area 6F. The study of the background of the technical Theatre. An overview of all aspects of theatre including basic stagecraft, drafting, set building, and technical direction. Prerequisite(s): None

THTR1131 Acting Drama Lab 2 2/0/0
Meets MNTC Goal Area 6F. This course is intended to give students practical experience in performance in a dramatic production. Students will study a play for production and receive individual and ensemble coaching in acting techniques. A student must be cast in a production to register. This course may be repeated for credit. Prerequisite(s): None

THTR1141 Stage Craft 2 2/0/0
Meets MNTC Goal Area 6F. This course is intended to provide students with practical experience in all aspects of technical theatre. Students will have the opportunity to learn skills in set design and construction, lighting, properties, costuming, makeup and sound. Prerequisite(s): None

TRNS1102 Intro to Transportation 2 1/1/0
This course is the study of occupational safety, shop operation procedures, power and hand tool use, shop equipment applications, fasteners, measuring instruments, service literature, general service knowledge, acceptable work habits, industry standards and expectations. Prerequisite(s): None

TRNS1104 Transportation Electronics 3 2/1/0
Preparation for the electronic and computer related courses that follow. The theory and operation of electricity, semi-conductors (transistors, diodes, light emitting diodes, fluorescent displays), and test instruments will be studied. Prerequisite(s): None

TRNS1106 Engine Theory 2 2/0/0
This course covers the fundamentals of internal combustion engine operation, repair and maintenance. The procedures for removal, replacement, diagnosing, rebuilding and assembly. Proper tool and equipment application, and failure diagnosis are emphasized in this course. Prerequisite(s): Pre/Corequisites: TRNS1102, TRNS1110

TRNS1108 Engine Service 3 0/3/0
This course covers the disassembly, diagnosis, measurement, service, assembly and adjustment of engines and components. Prerequisite(s): Pre/Corequisite: TRNS1106

TRNS1110 Vehicle Sys Operating Tech 3 2/1/0

This course covers the theories of operation and the latest technologies that are used in the development and operation of current transportation vehicles. This course will utilize vehicle components and systems to deliver instruction in operating principles, nomenclature, application, and diagnosis. Prerequisite(s): None

TRNS1112 Heating Ventilation A/C 3 1/2/0
This course teaches the principles of air conditioning and its relationship to the heating system. The various types, the diagnosis of malfunctions, testing and repair are studied in the classroom. Practical experience is performed on live systems: recovering, evacuating, component replacement, charging and performance testing of the systems. Prerequisite(s): Pre/Corequisites: TRNS1102, TRNS1110

TRNS1114 Environmental Safety 1 1/0/0
This course covers the regulations of the Consumer Products Safety Commission, Environmental Protection Agency, Minnesota Pollution Control Agency, Occupational Safety and Health Administration, and the management of hazardous wastes produced in industry. Prerequisite(s): None

TRNS1116 Starting & Charging Sys 3 1/2/0
This course covers the service procedures necessary to repair charging and starting system components. Electrical principles are applied to test and troubleshoot complete circuits as well as components of each. Fundamental rebuilding principles and system analysis are emphasized. Safe battery testing and service are performed. Prerequisite(s): Pre/Corequisites: TRNS1102, TRNS1104

TRNS1118 Welding I 2 1/1/0
This class introduces the students to welding safety, welding and cutting fundamentals. The course provides the theory of welding and the training to develop the necessary skills to cut and weld metal. Prerequisite(s): None

TRNS1120 Welding II 1 0/1/0
This course teaches skills needed to weld metals in a variety of positions using various methods of welding. The class will also introduce aluminum welding. Prerequisite(s): TRNS1118

TRNS1122 Shop Management 1 1/0/0
This course teaches students proper shop management procedures including parts ordering inventory, repair order writing, payroll employee-employer relations, customer relations, and communication skills. Prerequisite(s): None

WELD1102 Weld Fundamentals 3 1/2/0
This course provides a basic understanding of, the scope and importance of welding in our society, welding safety, basic joints, positions, processes and procedures. An introduction to SMAW (stick), GMAW (wire), and oxy-acetylene processes will be covered, utilizing lab exercises and classroom lecture. Prerequisite(s): None

WINE1100 Introduction to Wine 3 3/0/0
Introduction to Wine is a basic foundation course in the area of Wine Studies. The course will help students understand of the process of wine making and develop the senses necessary to evaluate wines. Students will study the classical wine varieties of the world and learn wine service techniques according to the professional standards of Sommelier.

Note: All persons enrolling must be of at least 21 years of age and have a photo ID as proof of age before enrolling. Prerequisite(s): None

WINE1200 Food and Wine Pairing 2 2/0/0

Food and Wine pairing will offer students the experience of seeing how different wine affects food and how food affects wine. Students will consider food cooking methods, textures, acid levels, taste, and spice profiles as well as characteristics of wine and wine servings such as light, medium, and heavy body, sweet versus dry, bubbles or no bubbles, chilled versus non-chilled, low or high alcohol, and acid levels. Students will compare the old rules of pairing versus the new reality of today. The order of wine service guidelines will also be addressed.

Note: All persons enrolling must be of at least 21 years of age and present a photo ID as proof of age before enrolling.
Prerequisite(s): WINE1100

WMST1130 Women's Studies 3 3/0/0
Meets MNTC Goal Areas 5 and 7. An interdisciplinary study designed to enhance the student's understanding of women's cultural, social, historical, political, and economic contributions and humanitarian achievements based on the historical and diverse societal setting. Prerequisite(s): None

ZOO1122 Hematology & Coag 4 3/1/0
An introductory course for Medical Laboratory Technician students covering the production, maturation, function and abnormalities of blood cells and coagulation (stoppage of bleeding) to main body homeostasis. Routine hematology procedures to identify abnormal and immature cell and coagulation procedures to detect deficiencies and abnormal conditions of the clotting of blood are emphasized. Prerequisite(s): Enrollment in MLT program or instructor approval

ZOO1123 Immunohematology 3 2/1/0
Introduction to the clinical area of blood banking. Principles of antigens on red blood cells and antibodies in serum of blood and the typing of and compatibility theory and laboratory procedures. Prerequisite(s): BIOL1125 and enrollment in MLT program or instructor approval

ZOO1126 Urinalysis/Body Fluids 2 1/1/0
A laboratory course for students enrolled in the Medical Laboratory Technician Certificate Program. An overview of the urinary system including abnormalities and diseases. The collection, handling, storage of, analysis of physical and chemical properties and study and identification of morphological elements of urine. Includes study of other body fluid including cerebral spinal fluid. Prerequisite(s): None

[NOTES] Notes to display on semester order plan 0

Prerequisite(s):

Course Renumbering List

MSCTC renumbered all courses to four-digit identifiers. These numbers are effective Fall Semester 2005-06. The following list indicates the new course numbers for courses that have been renumbered.

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
ABCT100	ABCT1100	Intro to Auto Body	ADMM242	ADMM2291	Med Secretary Internship
ABCT102	ABCT1102	Auto Body Off Car Repair	ADMM244	ADMM2292	Med Secretary Internship
ABCT104	ABCT1104	Auto Body Lab I	ADMM246	ADMM2293	Med Secretary Internship
ABCT106	ABCT1106	Intro to Refinishing	ADMM252	ADMM2252	Advanced Coding
ABCT110	ABCT1110	Panel Replacement	ADMS080	ADMS0090	Basic Keyboarding
ABCT112	ABCT1112	Auto Body Refinishing	ADMS100	ADMS1100	Keyboarding I
ABCT114	ABCT1114	Auto Body Lab II	ADMS102	ADMS1102	Keyboarding II
ABCT116	ABCT1116	Glass and Trim	ADMS104	ADMS1104	Skillbuilding
ABCT118	ABCT1118	Basic Electrical	ADMS108	ADMS1108	Data Entry
ABCT202	ABCT2202	Unibody/Frame Alignment	ADMS110	ADMS1110	Word Processing
ABCT204	ABCT2204	Body Shop Operation	ADMS112	ADMS1112	Desktop Publishing
ABCT206	ABCT2206	Mechanical Components I	ADMS116	ADMS1116	Business Communications
ABCT208	ABCT2208	Major Collision Lab I	ADMS120	ADMS1120	Office Procedures
ABCT210	ABCT2210	Collision Damage Repair	ADMS122	ADMS1122	Machine Transcription
ABCT212	ABCT2212	Mechanical Components II	ADMS124	ADMS1124	Proofreading/Editing
ABCT214	ABCT2214	Major Collision Lab II	ADMS128	ADMS1128	Records/Database Mgmt
ABCT216	ABCT2216	Spot Repair & Paint Blending	ADMS140	ADMS1140	Internship
ABCT222	ABCT2222	Auto Body Internship	ADMS150	ADMS1150	Intro to Windows
ACCT104	ACCT1101	Payroll	ADMS152	ADMS1152	Intro to Word Processing
ACCT108	ACCT1108	Business Math/Calculators	ADMS154	ADMS1154	Intro to Spreadsheets
ACCT110	ACCT2211 & ACCT2201	Financial Accounting I - Lecture & Lab	ADMS156	ADMS1156	Intro to Database
ACCT112	ACCT2212 & ACCT2202	Financial Accounting II - Lecture & Lab	ADMS158	ADMS1158	Intro to Presentation Software
ACCT120	ACCT1120	Business Law	ADMS160	ADMS1160	Intro to Internet
ACCT122	ACCT1012	Prin of Bookkeeping	ADMS162	ADMS1162	Intro Desktop Publishing
ACCT124	ACCT1124	Spreadsheet Applications	ADMS212	ADMS2212	Integrated Elec Office Sys
ACCT126	ACCT2215	Computerized Acct Applic I	ADMS218	ADMS2218	Presentation Applic (PPT)
ACCT128	ACCT2216	Computerized Acct Applic II	ADMS222	ADMS2222	Adv Desktop Publishing
ACCT140	ACCT2642	Accounting Internship	ADMS224	ADMS2124	Adv Microcomputer Tech
ACCT200	ACCT2620	Intermediate Accounting I	ADMS240	ADMS2240	Internship
ACCT202	ACCT2622	Intermediate Accounting II	AMST102	AMST1102	Alignment & Suspension I
ACCT204	ACCT2213 & ACCT2203	Managerial Accounting - Lecture & Lab	AMST105	AMST1105	Brakes I
ACCT206	ACCT2255	Income Tax-Individual	AMST109	AMST1109	Starting & Charging
ACCT207	ACCT2256	Income Tax-Business	AMST111	AMST1111	Transportation Electronics
ACCT208	ACCT2630	Fund/Nonprofit Accounting	AMST112	AMST1122	Engines I
ACCT218	ACCT2291	Volunteer Income Tax Asst	AMST126	AMST1126	Engines II
ACCT220	ACCT2800	RAP Review	AMST132	AMST1132	Drive Trains I
ACCT222	ACCT2222	Accred Acct ABA Review	AMST136	AMST1136	Drive Trains II
ACCT240	ACCT2643	Accounting Internship	AMST190	AMST1190	Upper Engine Service Lab
ACCT250	ACCT2644	Special Problems I	AMST192	AMST1192	Auto Transmission Srv Lab
ADML120	ADML1120	Legal Office Procedures	AMST194	AMST1194	Adv Clutch/Drive Line Lab
ADML124	ADML1124	Civil & Family Law	AMST196	AMST1196	Adv Brake Service Lab
ADML126	ADML1126	Criminal, ADR, Appellate	AMST198	AMST1198	Adv Transfer Case Lab
ADML128	ADML1128	Real Estate & Probate	AMST201	AMST2201	Alignment & Suspension II
ADML130	ADML1130	Corporate Collection & Bankruptcy	AMST206	AMST2206	Body Elec/Mechanical I
ADML132	ADML1132	Legal Transcription I	AMST209	AMST2209	Body Elec/Mechanical II
ADML212	ADML2212	Legal Research	AMST211	AMST2211	Exhaust Analysis Fuel Sys
ADML220	ADML2220	Advanced Legal Practices	AMST214	AMST2214	Elec Powertrain Cntrl I
ADML222	ADML2222	Legal Terminology	AMST218	AMST2218	Elec Powertrain Cntrl II
ADML240	ADML2240	Internship	AMST220	AMST2220	Ignition Systems
ADML250	ADML2250	ALS Certification Review	AMST224	AMST2224	Auto Service Tech Intern
ADMM120	ADMM1120	Medical Office Procedures	AMST225	AMST2225	Brakes II
ADMM130	ADMM1130	Medical Transcription	AMST226	AMST2226	Auto Service Tech Intern
ADMM134	ADMM1134	Medical Language Applic	AMST228	AMST2228	Auto Service Tech Intern
ADMM150	ADMM1150	Medical Billing/Insurance	AMST232	AMST2232	Auto Independent Study Lab
ADMM152	ADMM1152	Outpatient Coding	AMST233	AMST2233	Auto Transmission I
ADMM230	ADMM2230	Adv Medical Transcription	AMST234	AMST2234	Auto Independent Study Lab
ADMM240	ADMM2290	Med Secretary Internship	AMST236	AMST2236	Auto Independent Study Lab
			AMST237	AMST2237	Auto Transmission II
			AMST238	AMST2238	Auto Independent Study Lab
			AMST240	AMST2240	Heating Ventilation A/C
			AMST250	AMST2250	Certification Exam Prep
			AMST254	AMST2254	Tune-Up Lab
			AMST256	AMST2256	Brake System Update
			AMST258	AMST2258	Auto Transmission/axle Update
			AMST260	AMST2260	Manual Drive Train & Axles Update
			AMST262	AMST2262	Suspension/Steering Update
			AMST264	AMST2264	Engines Update
			AMST266	AMST2266	Electrical/Electronics Update
			AMST282	AMST2282	Supplemental Inflatable Restraint

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
AMST284	AMST2284	Chrysler Driveability & Test Proc	CART102	GDTC1102	Drawing I
AMST286	AMST2286	Climate Controls	CART104	GDTC1104	Drawing II
AMST292	AMST2292	Internship	CART112	GDTC1112	Design & Layout I
ARCH112	ARCH1112	Architectural Desktop	CART114	GDTC1114	Design & Layout II
ARCH126	ARCH1126	Residential Project I	CART126	GDTC1126	Digital Photography
ARCH140	ARCH1140	Building Systems I	CART128	GDTC1128	Typography
ARCH204	ARCH2204	Presentation	CART132	GDTC1132	Manual Pre-Press Production
ARCH216	ARCH2216	Computer Estimating	CART134	GDTC1134	Electronic Drawing I
ARCH218	ARCH2218	Architectural Internship	CART144	GDTC1144	Electronic Drawing II
ARCH224	ARCH2224	Architectural Applications	CART148	GDTC1148	Advertising Writing
ARCH226	ARCH2226	Residential Project II	CART150	GDTC1150	Process Printing Theory
ARCH232	ARCH2232	Adv Arch Software	CART202	GDTC2202	Electronic Image Manipulation
ARCH240	ARCH2240	Building Systems II	CART204	GDTC2204	Electronic Drawing III
ARCH244	ARCH2244	Commercial Projects	CART208	GDTC2208	Illustration
ARCH250	ARCH2250	Project Administration	CART212	GDTC2212	Design & Layout III
ATEC210	ATEC2210	Data Communications	CART232	GDTC2232	Electronic 3-D Imaging
ATEC226	ATEC2226	Industrial Automation & Control	CART238	GDTC2238	Layout & Design Studio
ATEC238	ATEC2238	Quality Planning & Control	CART242	GDTC2242	Electronic Publishing
BIOL104	GSMS1104	Intro to Anatomy & Physiology	CART244	GDTC2244	Adv Electronic Imaging
BIOL150	BIOL2230	Human Anatomy & Physiology I	CART256	GDTC2256	Graphic Dsgn Prof Prac
BIOL160	BIOL2232	Human Anatomy & Physiology II	CART276	GDTC2276	Graphic Dsgn Internship
BLDG102	BLDG1102	Construction Safety	CART278	GDTC2278	Digital Preflight
BLDG104	BLDG1104	Building Codes	CART284	GDTC2284	Commercial Art Studies I
BLDG114	BLDG1114	Blueprint Reading I	CART286	GDTC2286	Commercial Art Studies II
BLDG120	BLDG1120	Construction Estimating I	CART288	GDTC2288	Commercial Art Studies III
BLDG122	BLDG1122	Construction Estimating II	CDEV105	CDEV1105	Development/Guidance
BLDG130	BLDG1130	Building Tech I	CDEV107	CDEV1107	Intro to Early Educ
BLDG134	BLDG1134	Building Tech II	CDEV200	CDEV2200	Integrating Play
BLDG140	BLDG1140	Estimating Methods I	CDEV229	CDEV2229	Imaginative Learning
BLDG214	BLDG2214	Blueprint Reading II	CDEV230	CDEV2230	Brain Dvlp & Early Chldhd
BLDG240	BLDG2240	Estimating Methods II	CDEV232	CDEV2232	Literacy & Reading
BMGT102	BMGT1102	Prep Small Bus Mgmt/Ownership	CDEV234	CDEV2234	United Children/Youth
BMGT104	BMGT1104	Research Methods	CDEV236	CDEV2236	Occupational Experience
BMGT108	BMGT1108	Organizational Mmgt	CDEV238	CDEV2238	Special Needs
BMGT110	BMGT1110	Financ Statement Analysis	CDEV240	CDEV2240	Observing & Assessing
BMGT112	BMGT1112	Business Plan Dvlpmnt	CDEV242	CDEV2242	Infant/Toddler Program
BMGT114	BMGT1114	Internship	CDEV242L	CDEV2243	Infant/Toddler Lab
BUS1101	ACCT1102	Payroll Taxes	CDEV244	CDEV2244	Parent & Professional
BUS1135	ACCT1108	Business Math/Calculators	CDEV246	CDEV2246	Foundations of Literacy
BUS1142	ACCT1012	Accounting Fundamentals	CDEV250	CDEV2250	Sign Language
BUS2152	BUS2150	Legal Environment of Business	CDEV252	CDEV2252	Paraprofessional Role
BUS2211	ACCT2211	Financial Accounting I	CDEV280	CDEV2280	Play Development
BUS2212	ACCT2212	Financial Accounting II	CDEV290	CDEV2290	Internship
BUS2213	ACCT2213	Managerial Accounting	CHEF102	CHEF1102	Intro to Food Service Prep
BUS2215	ACCT2215	Computerized Accounting	CHEF104	CHEF1104	Soups, Stocks, & Sauces
BUS2290	ACCT2255	Income Tax-Individual	CHEF106	CHEF1106	Salad & Baking Lab
BUS2295	ACCT2295	Bookkeeping Review	CHEF112	CHEF1112	Poultry & Seafood
CADD102	CADD1102	Fundamentals of CADD	CHEF114	CHEF1124	Menu Planning & Merchandising
CADD202	CADD2202	Advanced CAD	CHEF118	CHEF1118	Fry & Broiler Lab
CADD204	CADD2204	CAD Certification	CHEF202	CHEF2202	Meats
CADD208	CADD2208	Mech Desktop 3D Modeling	CHEF204	CHEF2204	Breakfast Preparation Lab
CADD210	CADD2210	Architectural Desktop	CHEF206	CHEF2206	Buffet & Garde Manger Lab
CADD212	CADD2212	CADD Alternatives	CHEF212	CHEF2212	Prod & Planning Supervision Lab
CARP102	CARP1102	Prin of Framing	CHEF214	CHEF2214	Quantity Food Prep & Butcher Lab
CARP104	CARP1104	Framing I	CHEF220	CHEF2220	Internship
CARP106	CARP2106	Footings & Foundations	CHEF230	CHEF2230	Food Cost Control
CARP108	CARP1108	Interior Finish I	CHEF232	CHEF2232	Food Service Planning
CARP110	CARP1110	Intro to Cabinet Building	CHEF234	CHEF2234	Operation/Legal Aspects Hospitality
CARP112	CARP1112	Exterior Finish I	CHEF236	CHEF2236	Industry
CARP202	CARP2202	Prin of Framing II	CHEF238	CHEF2238	Ethnic Foods
CARP204	CARP2204	Concrete Technology	CIVL109	CIVL1109	Confectionery Art
CARP206	CARP2206	Adv Framing Applications	CIVL119	CIVL1119	Survey I: Principles
CARP208	CARP2208	Exterior Finish II	CIVL138	CIVL1138	Survey II: Land Surveys
CARP210	CARP2210	Interior/Exterior Finish Prin	CIVL206	CIVL2206	CADD II: Plan Layout
CARP212	CARP2212	Interior Finish II	CIVL209	CIVL2209	Construction Surveys
CARP214	CARP2214	Exterior Siding	CIVL210	CIVL2210	Construction Inspection
CARP216	CARP2216	Deck Construction	CIVL229	CIVL2229	Road Design
CARP218	CARP2218	Soffits, Gutters, Gables	CIVL230	CIVL2230	Survey III: Legal Surveys
CARP220	CARP2220	Carpentry Internship	CIVL236	CIVL2236	Civil Engineering Tech Intern
CARP222	CARP2222	Exterior Finish III	CIVL238	CIVL2238	Utility Design
CARP224	CARP2224	Advanced Cabinets	CIVL240	CIVL2240	CADD III: Project Design
CARP226	CARP2226	Special Projects/Topics			Intro to GIS

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
CIVL244	CIVL2244	Survey IV: Equipment Software	COSM154	COSM1154	Salon Operations III
COMM102	GSCO1102	Applied Communications	COSM156	COSM1156	Salon Operations IV
COMM222	GSCO2222	Critical Thinking Skills	COSM158	COSM1158	Salon Operations V
CONE102	CONE1102	Intro Elec Circuit Theory	COSM160	COSM1160	Salon Operations VI
CONE104	CONE1104	Intro to NEC	COSM170	COSM1170	40-Hr Refresher Course
CONE107	CONE1107	Intro Residential Wiring	COSM172	COSM1172	155-Hr React Crs: Practical
CONE108	CONE1108	Electrical Circuit Theory	COSM174	COSM1174	155-Hr React Crs: Theory
CONE110	CONE1110	AC/DC Motors/Generators	COSM176	COSM1176	155-Hr React Crs: License Prep
CONE112	CONE1112	Residential Wiring	CPTR100	CPTR1100	Fund Computer Concepts
CONE114	CONE1114	National Electrical Code	CPTR104	CPTR1104	Intro to Computer Tech
CONE116	CONE1116	Conduit/Tool Applications	CPTR106	CPTR1106	Microcomputer Databases
CONE118	CONE1118	Electrical Services	CPTR108	CPTR1108	CISCO 1
CONE120	CONE1120	Electrical Blueprints	CPTR110	CPTR1110	Visual Basic Program I
CONE122	CONE1122	Intro to Materials	CPTR112	CPTR1112	Visual Basic Program II
CONE124	CONE1124	Intro Elec Blueprint Read	CPTR114	CPTR1114	COBOL Programming I
CONE202	CONE2202	Heating/Cooling Controls	CPTR118	CPTR1118	CISCO 2
CONE205	CONE2205	Intro Commercial Wiring	CPTR120	CPTR1120	Sys Analysis & Design
CONE206	CONE2206	Intro Motor Control Applic	CPTR122	CPTR1122	Microcomputer Maintenance
CONE208	CONE2208	Prog Logic Controllers	CPTR128	CPTR1128	RPG/OS400 I
CONE211	CONE2211	Electronic Motor Control	CPTR138	CPTR1138	Information Systems
CONE212	CONE2212	Commercial Wiring	CPTR140	CPTR1140	Network Essentials
CONE214	CONE2214	Industrial Wiring	CPTR142	CPTR1142	Network Essentials
CONE216	CONE2216	Motor Control Application	CPTR148	CPTR1148	Microcomputer Operating Sys
CONE220	CONE2220	Electrician Internship	CPTR150	CPTR1150	Adv Microcomputer OS
CONE222	CONE2222	Adv Prog Logic Controllers	CPTR152	CPTR1152	Help Desk
CONE225	CONE2225	Transformers	CPTR154	CPTR1154	UNIX Administration
CONE226	CONE2226	Agricultural Wiring	CPTR160	CPTR1160	Practical Math-Spreadsheet
CONE228	CONE2228	Troubleshooting	CPTR164	CPTR1164	Word Processing for Technicians
CONE230	CONE2230	Load Management Controls	CPTR180	CPTR1180	Report Generation
CONE232	CONE2232	Intro to Cptr Aided Drafting	CPTR200	CPTR2200	CISCO 3
CONE234	CONE2234	Hydraulics/Pneumatics	CPTR208	CPTR2208	CISCO 4
CONE236	CONE2236	Industrial Motor Maintenance	CPTR220	CPTR2220	COBOL Programming II
CONE238	CONE2238	Low Voltage Wiring	CPTR224	CPTR2224	Linux I
CONE240	CONE2240	Code Update	CPTR228	CPTR2228	RPG/OS400 II
CONE244	CONE2244	Natl Elec Code Changes 2002	CPTR230	CPTR2230	Struc Query Language
CONE246	CONE2246	Advanced Electronics	CPTR234	CPTR2234	Linux II
CONE248	CONE2248	Code Applications	CPTR236	CPTR2236	Network Security
CONE250	CONE2250	Special Topics/Projects	CPTR238	CPTR2238	Information Software Sys I
CONM102	CONM1102	Site/Building Layout	CPTR242	CPTR2242	Java Programming
CONM124	CONM1124	Building Systems	CPTR246	CPTR2246	Mgmt Information Systems
CONM204	CONM2204	Materials Testing	CPTR252	CPTR2252	Microcomputer Systems Project
CONM206	CONM2206	Building Codes	CPTR254	CPTR2254	Information Software Sys II
CONM208	CONM2208	Construction Estimating III	CPTR256	CPTR2256	TCP/IP
CONM210	CONM2210	Construction Scheduling	CPTR272	CPTR2272	Network Operating Systems
CONM212	CONM2212	Site Management	CPTR274	CPTR2274	Network Administration
CONM214	CONM2214	Safety Management	CPTR278	CPTR2278	Microcomputer Graphics
CONM222	CONM2222	Construction Mgmt Internship	CPTR280	CPTR2280	WAN Administration
COSM102	COSM1102	Preclinic Intro Cosmetology	CPTR290	CPTR2290	Computer Program Internship
COSM104	COSM1104	Preclinic Intro Manicurist	CPTR294	CPTR2294	Cmptr & Network Intern I
COSM106	COSM1106	Preclinic Intro Esthetist	CRLT102	GSWS1102	Contemporary Career Search
COSM108	COSM1108	Preclinic Hair Care	CRLT104	GSWS1108	Wellness and Work
COSM110	COSM1110	Preclinic Nail Care	CRMP202	CRMP2202	CR Structure & Mgmt
COSM112	COSM1112	Preclinic Chemical Control	CRMP203	CRMP2203	Cancer Reg Operations
COSM114	COSM1114	Preclinic Hair Color	CRMP204	CRMP2204	Oncology Coding & Stag
COSM116	COSM1116	Preclinic Skin Care	CRMP205	CRMP2205	Abstracting Methods
COSM118	COSM1118	Advanced Hair Care	CRMP206	CRMP2206	Follow-up Methods
COSM120	COSM1120	Salon Preparation	CRMP207	CRMP2207	Clinical Experience
COSM122	COSM1122	Clinic I	CTEC102	CTEC1102	Technology & Organization
COSM124	COSM1124	Clinic II	CTEC104	CTEC1104	Technical Research
COSM126	COSM1126	Clinic III	CTEC106	CTEC1106	Helpdesk Operations
COSM128	COSM1128	Clinic IV	CTEC202	CTEC2202	Comm, Networks, & Internet
COSM132	COSM1132	Clinic VI	CTEC204	CTEC2204	Adv Technical Support
COSM134	COSM1134	Nail Clinic/License Prep	CTEC240	CTEC2240	Technical Support Internship
COSM136	COSM1136	Cosmetology License Prep	DENT100	DENT1100	Biomaterials
COSM138	COSM1138	Estheology Clinical/License Prep	DENT112	DENT1112	Dental Anatomy
COSM140	COSM1140	Clinic VII	DENT114	DENT1114	Dental Radiology
COSM142	COSM1142	Salon Practicum I	DENT120	DENT1120	Dental Pharmacology
COSM144	COSM1144	Salon Practicum II	DENT122	DENT1122	Dental Ethics & Jurisprudence
COSM146	COSM1146	Manicurist Clinic I	DNAS106	DNAS1106	Dental Science
COSM148	COSM1148	Superfluous Hair Removal	DNAS112	DNAS1112	Clinical Assisting I
COSM150	COSM1150	Salon Operations I	DNAS120	DNAS1120	Dental Prac Management
COSM152	COSM1152	Salon Operations II	DNAS126	DNAS1126	Clinical Assisting Specialties

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
DNAS128	DNAS1128	Advanced Functions	ELWT102	ELWT1102	Line Worker Theory I
DNAS130	DNAS1130	Clinical Affiliation	ELWT104	ELWT1104	Electrical Structure Installation
DNAS132	DNAS1132	Credentialing Exam Prep	ELWT106	ELWT1106	Climbing Electrical Structure
DNHY106	DNHY1106	Head and Neck Anatomy	ELWT108	ELWT1108	Const of Overhead Structures
DNHY108	DNHY1108	Oral Histology & Embryology	ELWT110	ELWT1110	Line Worker Theory II
DNHY110	DNHY1110	Dent Hygiene Prin I	ELWT112	ELWT1112	Transformers
DNHY112	DNHY1112	Dent Hygiene Prac I	ELWT114	ELWT1114	Line Construction Reports
DNHY116	DNHY1116	Dent Hygiene Prin II	ELWT116	ELWT1116	Pole Top/Bucket Rescue
DNHY118	DNHY1118	Oral Pathology	ELWT118	ELWT1118	Field Construction I
DNHY123	DNHY1123	Dent Hygiene Prac II	ELWT120	ELWT1120	Field Construction II
DNHY124	DNHY1124	Pain Control Lab	ELWT122	ELWT1122	Field Construction III
DNHY130	DNHY1130	Dent Hygiene Prin III	ELWT130	ELWT1130	Electrical Line Worker Internship
DNHY132	DNHY1132	Dent Hygiene Prac III	EMTB100	EMTB1100	Emergency Med Tech Basic
DNHY210	DNHY2210	Dent Hygiene Prin IV	ENGR100	ENGR1100	Project Management
DNHY213	DNHY2213	Dent Hygiene Prac IV	ENGR118	ENGR1118	Engineering Applications
DNHY216	DNHY2216	Community Dental Hygiene	ENGR126	ENGR1126	Engineering Graphics
DNHY219	DNHY2219	Periodontology	ENGR132	ENGR1132	Office Systems & Equip
DNHY220	DNHY2220	Dent Hygiene Prin V	FASH140	FASH1140	Textiles
DNHY223	DNHY2223	Dent Hygiene Prac V	FASH144	FASH1144	Fashion History & Trends
DNHY232	DNHY2232	Dental Hygiene Review	FASH152	FASH1152	Professional Image Strategies
DNHY240	DNHY2240	Clinical Affiliation I	FASH158	FASH1158	Business Insights
DNHY246	DNHY2246	Clinical Affiliation II	FASH242	FASH2242	Fashion Accessories
DRAF230	DRAF2230	Electrical Systems Technology	FASH248	FASH2248	Buying
DRAF234	DRAF2234	HVAC	FASH250	FASH2250	Visual Merchandising
DSET102	DSET1102	Engine Service	FASH254	FASH2254	Specialty Departments
DSET104	DSET1104	Preventative Maintenance	FASH258	FASH2258	Field Studies
DSET106	DSET1106	Fuel Systems	FIRE100	FIRE1100	Intro to Fire Service
DSET110	DSET1110	Power Train I	FIRE104	FIRE1104	Job Skills I
DSET112	DSET1112	Hydraulics I	FIRE106	FIRE1106	Firefighter I & II
DSET114	DSET1114	Vehicle Brakes	FIRE108	FIRE1108	Firefighter I & II Skills
DSET118	DSET1118	Final Drives	FIRE112	FIRE1112	Fire Apparatus
DSET120	DSET1120	General Shop Serv Ind Study	FIRE150	FIRE1150	HazMat Operational
DSET122	DSET1122	General Shop Serv Ind Study	FIRE152	FIRE1152	Building Construction
DSET202	DSET2202	Advanced Engines	FIRE154	FIRE1154	Company Functions
DSET204	DSET2204	Adv Electrical Systems	FNCS110	FNCS1110	Intro to Financial Services
DSET206	DSET2206	Electronic Controls	FNCS114	FNCS1114	Consumer Lending
DSET210	DSET2210	Mobile Hydraulics	FNCS118	FNCS1118	Personal Finance Prod/Cust Srvc
DSET212	DSET2212	Power Trains II	FNCS122	FNCS1122	Teller Applications
DSET214	DSET2214	Suspension & Alignment	FNCS126	FNCS1126	Credit Counseling & Collections
DSET218	DSET2218	Advanced Fuels	FNCS210	FNCS2210	Financial Statement Analysis
DSET220	DSET2220	Internship	FNCS220	FNCS2220	Real Estate Lending
ELTR100	ELTR1100	Survey of Electronics	FNCS240	FNCS2240	Financial Internship
ELTR102	ELTR1102	Circuit Analysis I	GTEC006	DVCM0006	Comprehension Building
ELTR104	ELTR1104	Circuit Analysis II	GTEC104	GSWS1104	College Success Skills
ELTR124	ELTR1122 & ELTR1123	Digital I & II	GTEC108	GSC11108	Info Retrieval - 21st Century
ELTR152	ELTR1152	Semiconductors I	HEAT102	HEAT1102	Sheet Metal Design
ELTR154	ELTR1154	Semiconductors II	HEAT104	HEAT1104	Control Electricity
ELTR160	ELTR1160	Electronic Assembly Tech	HEAT202	HEAT2202	Air Handling
ELTR180	ELTR1180	Communication Systems I	HEAT218	HEAT2218	Gas Heating
ELTR202	ELTR2202	Semiconductors III	HEAT220	HEAT2220	Oil Heating
ELTR208	ELTR2208	Microprocessors	HEAT222	HEAT2222	Wire Feed Welding
ELTR212	ELTR2212	Microcomputer Sys Program	HITM150	HITM1150	Intro Health Info Science
ELTR220	ELTR2220	Communication Systems II	HITM152	HITM1152	Health Information Systems
ELTR222	ELTR2222	Adv Computer Maintenance	HITM154	HITM1154	Medicolegal Aspects
ELTR226	ELTR2226	Service Monitor Operation	HITM156	HITM1156	Coding Classification Sys
ELTR230	ELTR2230	Troubleshooting	HITM158	HITM1158	Clinical Affiliation I
ELTR236	ELTR2236	Multiple Access Systems	HITM202	HITM2202	Cmptr Applic in Health
ELTR240	ELTR2240	Electromagnetic System	HITM210	HITM2210	Coding-ICD-9-CM
ELTR242	ELTR2242	Video Systems	HITM2260	no change	Reimbursement Methods
ELTR246	ELTR2246	Audio Systems	HITM234	HITM2234	Coding III Advanced
ELTR250	ELTR2250	Statistics & Quality	HITM240	HITM2240	Coding II CPT
ELTR254	ELTR2254	Sensors & Transducers	HITM245	HITM2245	Coding IV CPT
ELTR256	ELTR2256	Electronic Licensing	HITM250	HITM2250	Super Lead in Hlth
ELTR260	ELTR2260	Land Mobile Radio	HITM252	HITM2252	Quality Mgmt & Statistics
ELTR262	ELTR2262	Electronic Equip Servicing	HITM258	HITM2258	Clinical Affiliation II
ELTR266	ELTR2266	Mechanics & Hydraulics	HLTH104	HLTH1104	Medical Law and Ethics
ELTR268	ELTR2268	Programmable Logic Controllers	HLTH106	HLTH1106	Medical Terminology
ELTR270	ELTR2270	Adv Lab Project I	HLTH110	HLTH2002	Basic Pharmacology
ELTR272	ELTR2272	Adv Lab Project II	HLTH118	HLTH1112	Home Health Aide
ELTR274	ELTR2274	Adv Lab Project III	HLTH112	HLTH1102	Health Career Exploration
ELTR288	ELTR2288	Electronic Technology Internship	HLTH208	HLTH2208	Pathophysiology
			HRES122	HRES1122	Intro to Human Resources

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
HRES126	HRES1126	Employee Processes	METC202	METC2202	Power Trans & Mech Sys
HRES130	HRES1130	Benefits Administration	METC208	METC2208	Basic Elec/Electronics
HRES134	HRES1134	Training & Development	METC210	METC2210	Electro-Mech & Indus Cntrl
HRES204	HRES2204	Policy Administration	METC216	METC2216	CAM/CNC
HRES212	HRES2212	Wage/Salary Administration	METC220	METC2220	Hydraulic Systems
HRES224	HRES2224	Employee/Labor Relations	METC222	METC2222	Fluid Power Systems
HRES242	HRES2242	HR Internship	METC224	METC2224	Electricity & Electronics
HUM110	HUM1101	Intro to Humanities	METC226	METC2226	Jig & Fixture Dsgn for Mfg
HVAC102	HVAC1102	Duct Fitting Construction	METC228	METC2228	Pneumatic Systems
HVAC104	HVAC1104	HVAC Electrical Controls	METC230	METC2230	Setup Reduction: The SMED Sys
HVAC128	HVAC1128	HVAC Design & Installation	METC232	METC2232	Mistake Proofing: The ZQC Sys
HVAC202	HVAC2202	Air Handling	METC234	METC2234	Wrkplc Productivity & Organization
HVAC204	HVAC2204	Adv Duct Fitting Const	METC236	METC2236	Quality Planning & Mgmt
HVAC212	HVAC2212	Hot Water Heating	METC238	METC2238	Production & Inventory Mgmt
HVAC250	HVAC2250	HVAC Applications	METC242	METC2242	Spec Topics Manufacturing
HVAC254	HVAC2254	HVAC Interrelated Topics	METC252	METC2252	Production/Operations Mgmt
HVAC260	HVAC2260	Refrigerant Certification	METC254	METC2254	Quality Measurement & Control
HVAC290	HVAC2290	Internship	METC256	METC2256	Programmable Logic Cntrl
IMMA110	IMMA1110	Intro Power & Mech Sys	METC260	METC2260	Project Management
IMMA112	IMMA1112	Mech Blueprint Reading	METC270	METC2270	Manufacturing Internship
IMMA210	IMMA2210	Special Topics-Maint.	MKTG100	MKTG1100	Prin of Marketing
INTD102	INTD1102	Info Exchange Networking Tech	MKTG104	MKTG1104	Intro to Business
INTD104	INTD1104	Systems Administration	MKTG106	MKTG1106	Principles of Sales
INTD108	INTD1108	HTML	MKTG110	MKTG1110	Customer Service
INTD110	INTD1110	Intro to Web Programming	MKTG112	MKTG1112	Retailing
INTD112	INTD1112	Web Graphic Design	MKTG116	MKTG1116	Advertising
INTD116	INTD1116	Web Graphic Creation	MKTG118	MKTG1118	Telemarketing Techniques
INTD206	INTD2206	XML	MKTG120	MKTG1120	Supervisory Leadership
INTD208	INTD2208	Java Script/DHTML	MKTG126	MKTG1126	Consumer Money Mgmt
INTD210	INTD2220	Adv Web Programming	MKTG128	MKTG1128	Business Insights
INTD212	INTD2214	Multimedia Web Design	MKTG130	MKTG1130	Marketing Ethics
INTD224	INTD2224	Web Marketing	MKTG138	MKTG1138	Leadership Development I
INTD230	INTD2230	Emerg Tech-Resrch & Feasibility	MKTG140	MKTG1140	Leadership Development II
INTD232	INTD2232	E-Commerce Implementation	MKTG200	MKTG2200	Prin of Management
INTD234	INTD2234	Adv Web Site Project	MKTG204	MKTG2204	Applied Sales Techniques
INTD242	INTD2242	Web Database Programming	MKTG206	MKTG2206	Sales Management
INTD248	INTD2248	Perl Programming	MKTG208	MKTG2208	Organizational Behavior
INTD250	INTD2250	Interactive Media Internship	MKTG210	MKTG2210	Management Trends
MATH0065	GSMS0065	Math for Nurses	MKTG212	MKTG2212	Retail Management
MATH008	MATH1020	Intermediate Algebra	MKTG220	MKTG2222	Human Resource Mgmt
MATH010	DVMS0057	Practical Math Applications	MKTG226	MKTG2226	Consumer Behavior
MATH100	GSMS1000	Technical Mathematics	MKTG230	MKTG2230	Marketing Research
MATH102	GSMS1002	Technical Trigonometry	MKTG232	MKTG2232	Marketing Management
MATH104	GSMS1004	Technical Trigonometry II	MKTG234	MKTG2234	Computer Marketing Applic
MATH106	GSMS1006	Tech Algebra/Trig	MKTG236	MKTG2236	Small Business Mgmt
MATH152	MATH1102	Finite Math	MKTG238	MKTG2238	Leadership Development III
MCDD104	MCDD1104	Mech Engineering Drawing I	MKTG240	MKTG2240	Leadership Development IV
MCDD106	MCDD1106	Mech Engineering Drawing II	MKTG242	MKTG2242	Advertising Management
MCDD120	MCDD1120	Drafting Practices	MKTG244	MKTG2244	Sales Promotion
MCDD122	MCDD1122	Geometric Tolerance & Dimension	MKTG246	MKTG2246	Media Planning & Sales
MCDD124	MCDD1124	Mechanical Drafting Applications	MKTG290	MKTG2290	Supervised Occup Exp I
MCDD224	MCDD2224	Manufacturing Process	MKTG292	MKTG2292	Supervised Occup Exp II
MCDD242	MCDD2242	Machine Design	MKTG298	MKTG2298	Small Business Plan Development
MCDD246	MCDD2246	Tool Design	MRNT102	MRNT1102	Intro to Marine Tech
MCDD248	MCDD2248	CNC Application	MRNT104	MRNT1104	Drive System Theory
MCDD250	MCDD2250	Machine Blueprint & Material Est	MRNT106	MRNT1106	Drive System Service I
MCDD252	MCDD2252	Mechanical Design Process	MRNT108	MRNT1108	Marine Hydraulics
MCDD260	MCDD2260	Mech CADD Dsgn & Detail Intern	MRNT110	MRNT1110	Transom & Mid Section Service
METC112	METC1112	Manufacturing Processes	MRNT114	MRNT1114	Intro to Boat Rigging
METC114	METC1114	Engineering Drawings/CAD I	MRNT202	MRNT2202	Marine Fuel Systems
METC116	METC1116	Engineering Drawings/CAD II	MRNT204	MRNT2204	Marine Electrical Systems
METC118	METC1118	Manufacturing Basics	MRNT206	MRNT2206	EFI Systems
METC120	METC1120	Blueprint Reading/Measure	MRNT208	MRNT2208	Engine Condition Diagnosis
METC122	METC1122	Intro Mechanical Sys	MRNT210	MRNT2210	Engine Service
METC124	METC1124	Overview Fluid Power	MRNT212	MRNT2212	Performance Testing
METC126	METC1126	Basic CNC Operations	MRNT214	MRNT2214	Marine Internship
METC128	METC1128	Applied CNC Operations	MRNT218	MRNT2218	Adv Electrical Diagnosis
METC130	METC1130	Basic Elec Concepts	MRNT220	MRNT2220	Marine Shop Management
METC132	METC1132	Overview PLCs	MRNT224	MRNT2224	Marine Indep Study Lab I
METC134	METC1134	Applied Basic PLCs	MRNT226	MRNT2226	Advanced Drive System
METC140	METC1140	Basic Robotic Prin	MRNT230	MRNT2230	Marine Stern Drive Engines
METC152	METC1152	Safety & Accident Prevent	MRNT232	MRNT2232	Marine Indep Study Lab II

Old Course #	New Course #	Course Title	Old Course #	New Course #	Course Title
MRNT236	MRNT2236	Boat Reconditioning	REFR110	REFR1110	Refrig, A/C & Htg Prin
NEON102	NEON1102	Block Neon	REFR112	REFR1112	Refrig, A/C & Htg Lab
NEON104	NEON1104	Script Neon	REFR114	REFR1114	Refrigeration Electrical Circuits
NEON106	NEON1106	Neon Pattern & Sculpture	REFR130	REFR1130	Refrigeration Mgmt
NEON109	NEON1109	Production Bending	REFR140	REFR1140	Gas Heating
NEON110	NEON1110	Bombarding & Transformers	REFR148	REFR1148	Resid AC, Theory, Applic, Cert
NEON113	NEON1113	Outdoor Neon	REFR202	REFR2202	Commercial Refrig & A/C Prin
NEON114	NEON1114	Indoor Neon	REFR204	REFR2204	Commercial Refrig & A/C Lab
NEON116	NEON1116	Neon Internship I	REFR206	REFR2206	Commercial Electrical Prin
NEON118	NEON1118	Neon Internship II	REFR208	REFR2208	Commercial Electrical Lab
NEON120	NEON1120	Manifold Construction	REFR210	REFR2210	Adv Refrigeration Prin
NEON122	NEON1122	Cost Analysis & Layout	REFR212	REFR2212	Adv Refrigeration Lab
NEON124	NEON1124	Neon Art & Clocks	REFR214	REFR2214	Adv Electrical Applications
NSCI096	DVMS0096	Pre-College Chemistry	REFR216	REFR2216	Refrigeration Internship
NSCI102	GSMS1102	Intro to Nutrition	REFR220	REFR2220	HVAC Troubleshooting
NSCI110	GSMS1110	First Aid / CPR	REFR222	REFR2222	Electronic Controls
ODPR102	ODPR1102	Outdoor Power Equip Theory	REFR240	REFR2240	Oil Heat
ODPR104	ODPR1104	ODPR Engine Service Lab I	REFR242	REFR2242	Heat Load Estimating
ODPR106	ODPR1106	ODPR Fuel/Electrical Srv Lab II	SALE160	SALE1160	Specialty Seminars
ODPR108	ODPR1108	Snow Fuel/Chassis/Pwrtrn Lab III	SALE162	SALE1162	Product Knowledge Development
ODPR110	ODPR1110	Adv Eng & Rltd Pwr Equip Thry	SALE164	SALE1164	Personal Finance
ODPR112	ODPR1112	Adv Eng, Electrical & Pwrtrn Lab	SALE166	SALE1166	Sales Psychology
ODPR114	ODPR1114	Related Power Equip Srv Lab	SALE168	SALE1168	Visual Presentation/Hard Lines
ODPR116	ODPR1116	All Terrain Vehicle Service	SGDT100	SGDT1100	Cmpt Layout & Design I
ODPR118	ODPR1118	Chainsaw Service	SGDT102	SGDT1102	Freehand Lettering
ODPR120	ODPR1120	Personal Water Craft Service	SGDT104	SGDT1104	Banners & Showcard Tech
ODPR122	ODPR1122	Troubleshooting/Tune-up Lab	SGDT106	SGDT1106	Wall Graphics
ODPR124	ODPR1124	Welding	SGDT108	SGDT1108	Specialty Sign Applic I
ODPR132	ODPR1132	Outdoor Power Indep Study Lab I	SGDT200	SGDT2200	Cmpt Layout & Design II
ODPR134	ODPR1134	Outdoor Power Equipment Service	SGDT202	SGDT2202	Commercial Signage
ODPR136	ODPR1136	Internship	SGDT204	SGDT2204	Window Graphic Tech
PHIL210	PHIL2210	Morals/Medicine	SGDT206	SGDT2206	Vehicle Graphic Tech
PHRM100	PHRM1001	Fund Concepts of Pharmacy	SGDT208	SGDT2208	Specialty Sign Applic II
PHRM200	PHRM2001	Pharmacy Prin / Prac I	SPCH120	SPCH1112	Small Group Communication
PHRM202	PHRM2002	Pharmacy Prin / Prac II	SSCI104	GSSI1104	Human Relations
PHRM204	PHRM2004	Drug Properties/Distribution	SSCI112	GSSI1112	Contemporary Economics
PHRM210	PHRM2010	Experiential / Hospital	SUPL110	SUPL1110	Budget & Financial Mgmt
PHRM212	PHRM2012	Experiential / Retail	SUPL118	SUPL1118	Lead & Facilitate Teams
PLBG102	PLBG1102	Piping Trades/Job Safety	SUPL120	SUPL1120	Covey's 7 Habits of Highly Effective People
PLBG104	PLBG1104	Bldg Sewers/Drainage Sys	SUPL122	SUPL1122	Covey's 4 Roles of Leadership
PLBG106	PLBG1106	Piping Grades/Elev/Calcul	SUPL124	SUPL1124	Covey's 4 Disciplines of Execution
PLBG108	PLBG1108	Plumbing/Piping Drawings	SUPL214	SUPL2214	Supervisory Ldrship Intern
PLBG110	PLBG1110	Copper Pipe Procedures	TECH100	TECH1100	Fund of Telecommunications
PLBG112	PLBG1112	Plastic Pipe Procedures	TECH110	TECH1110	Pole Climbing
PLBG114	PLBG1114	Steel Pipe Procedures	TECH120	TECH1120	Cabling & Termination
PLBG116	PLBG1116	Plumbing Theory/Systems	TECH126	TECH1126	Telecom Outside Plant Const
PLBG118	PLBG1118	State Plbg Code Interpret	TECH128	TECH1128	Fund Telecom Outside Plant Const
PLBG120	PLBG1120	Residential Plbg Install	TECH130	TECH1130	Fiber Optics
PLBG122	PLBG1122	Plbg Repair/Service Work	TECH150	TECH1150	Telecom Customer Service
PLBG124	PLBG1124	Plumbing Field Internship	TECH190	TECH1190	Telecom Srv & Installation Intern
PLBG126	PLBG1126	Oil Burner Service Work	TECH200	TECH2200	BISCI Installer Level I Cert
PLBG128	PLBG1128	Heat Sys Design & Install	TECH230	TECH2230	Telecommunications Systems
PLBG130	PLBG1130	Hydronic Heating System	TECH240	TECH2240	Broadband Sys Dsgn & Analysis I
PLBG132	PLBG1132	Water Treatment/Condition	TECH242	TECH2242	Broadband Sys Dsgn & Analysis II
RADT110	RADT1112	Intro to Rad Tech/Pat Care	TECH250	TECH2250	Business Com Sys I
RADT114	RADT1114	Radiographic Proc I	TECH252	TECH2252	Business Com Sys II
RADT118	RADT1148	Clinical Radiography I	TECH260	TECH2260	Adv Data Communications
RADT124	RADT1124	Radiographic Proc II	TECH270	TECH2270	Adv Electronic Communications
RADT128	RADT1158	Clinical Radiography II	TECH280	TECH2280	Central Office Fundamentals
RADT130	RADT1140	Radiographic Imaging	TECH290	TECH2290	Telecommunications Tech Intern
RADT138	RADT1168	Clinical Radiography III	TECH292	TECH2292	Telecom Engineering Intern
RADT210	RADT2210	Prin of Imaging Equip	THPY110	THPY1110	Massage Tech/Ethics
RADT218	RADT2218	Clinical Radiography IV	THPY1140	THPY1148	Sports Massage/Hydro
RADT220	RADT2220	Radiation Biology/Protect	THPY1154	THPY1156	Sports Massage/Hydro
RADT228	RADT2228	Clinical Radiography V	THPY118	THPY1118	Kinesiology
RADT230	RADT2230	Intro Rad Qlty Assurance	THPY123	THPY1123	Integrative Massage
RADT234	RADT2234	Radiographic Pathology	THPY150	THPY1150	Business Development
RADT238	RADT2238	Clinical Radiography VI	TRNS102	TRNS1102	Intro to Transportation
REFR102	REFR1102	Refrigeration Principles	TRNS104	TRNS1104	Transportation Electronics
REFR104	REFR1104	Refrigeration Lab	TRNS106	TRNS1106	Engine Theory
REFR106	REFR1106	Electrical Fundamentals	TRNS108	TRNS1108	Engine Service
REFR108	REFR1108	Electrical Lab			

Old Course #	New Course #	Course Title	Deactive Course #	Course Title	Replacement Course
TRNS110	TRNS1110	Vehicle Sys Operating Tech	ZOO2232	Anatomy & Phys II Lecture	replace with BIOL2232
TRNS112	TRNS1112	Heating Ventilation A/C	ZOO2233	A & P II Lab	incorporate to BIOL2232
TRNS114	TRNS1114	Environmental Safety			
TRNS116	TRNS1116	Starting & Charging Sys			
TRNS118	TRNS1118	Welding I			
TRNS120	TRNS1120	Welding II			
TRNS122	TRNS1122	Shop Management			
WELD102	WELD1102	Weld Fundamentals			
ZOO1125	BIOL1125	Basic Immunology			
ZOO2201	BIOL1005	Survey A&P			

MSCTC has aligned courses where previously two similar courses existed. The following list indicates the deactivated course numbers/titles, along with the replacement course numbers.

Deactive Course #	Course Title	Replacement Course
BIOL110	Microbiology	replace with BIOL2257
BIOL1120	Environmental Science	replace with BIOL1107
CHEM120	Intro to Chemistry	replace with CHEM1101
COMM006	Fundamentals of Writing	replace with ENGL0050
COMM230	Technical Writing	replace with ENGL1201
COMP110	Composition I	replace with ENGL1101
COMP120	Composition II	replace with ENGL1102
ECON110	Macroeconomics	replace with ECON2210
HLTH1105	Medical Terminology	replace with HLTH1106
HLTH1114	CPR	replace with GSMS1110
HLTH128	Intro Nrsng Long Term Care	replace with HLTH1115
HLTH130	Intro to Home Health	replace with HLTH1112
MATH002	Foundations of Math	replace with MATH0052
MATH004	Introductory Algebra	replace with MATH0090
MATH006	Algebra: Intro & Intermediate	replace with MATH0090 & MATH1020
MATH0091	Elementary Algebra	replace with MATH0090 & MATH1020
MATH1010	Intro to College Algebra	replace with MATH1020
MATH150	College Algebra	replace with MATH1114
MATH154	Elementary Statistics	replace with MATH1213
MATH202	Probability and Statistics	replace with MATH1213
OBRA100	Intro to Nursing	replace with HLTH1121
PHIL120	Intro to Philosophy	replace with PHIL1211
PHIL130	Intro to Ethics	replacd with PHIL1201
PHYS110	Physics	replace with PHYS1105 or PHYS1106 (new courses)
PHYS1100	Fund Concepts of Physics	replace with PHYS1105 or PHYS1106 (new courses)
PSCI110	State/Local Gov	replace with PSCI1113
PSYC110	General Psychology	replace with PSYC1200 (new course)
PSYC1211	General Psychology	replace with PSYC1200 (new course)
PSYC1212	General Psychology II	incorporated into new course PSYC1200
PSYC122	Developmental Psychology	replace with PSYC2222
PSYC130	Abnormal Psychology	replace with PSYC2220
PSYC140	Human Interaction	replace with PSYC1101
SOCI110	Intro to Sociology	replace with SOC1111
SPCH110	Intro to Public Speaking	replace with SPCH1114
ZOO2230	Human Anatomy & Physiology I	replace with BIOL2230
ZOO2231	A & P I Lab	incorporate to BIOL2230



MnSCU Board of Trustees

MSCTC Employees: Alphabetical Directory

MSCTC Employees: Campus Directory

Index

Minnesota State Colleges and Universities - MnSCU

James H. McCormick, Chancellor

MnSCU Board of Trustees

Caleb Anderson

Maplewood, MN

Duane Benson

Minneapolis, MN

Michael Boulton, Treasurer

Porter, MN

Cheryl Dickson

St. Paul, MN

Ivan F. Dusek

Willmar, MN

Ruth Grendahl

Apple Valley, MN

Clarence Hightower, Vice Chair

Minneapolis, MN

Dan McElroy

St. Paul, MN

David Olson

St. Paul, MN

David Paskach, Chair

Marshall, MN

Thomas Renier

Duluth, MN

Christine Rice

Lake Elmo, MN

Ann Curme Shaw

Minneapolis, MN

C. Scott Thiss

Edina, MN

James Van Houten

Minneapolis, MN

Carol Wenner

Alexandria, MN

Minnesota State Community and Technical College Administration

Ann Valentine

President

Doctorate, Iowa State University

Masters, Iowa State University

Bacc, Mount Mercy College, Cedar Rapids, Iowa

Associate, Kirkwood Community College, Cedar

Rapids, Iowa

Cristopher “Cris” Valdez

Provost – Detroit Lakes Campus

Masters,

Provost – Fergus Falls Campus

Jerome Migler

Provost – Moorhead Campus

Doctorate, University of Minnesota

Kathleen Curphy

Provost – Wadena Campus

Spec,MFA,JD, Central Missouri State University

Bacc, University of Northern Iowa

Teresa Theisen

Associate Provost - Perham

Masters, Moorhead State University

Bacc, North Dakota State University

Dacia Johnson

Human Resources Director – Fergus Falls

Patrick Nordick

Chief Financial Officer - Perham

Bacc, Bemidji State University

MSCTC Employees: Alphabetical Directory

A

Aasen, Lynn

Gen. Maintenance Worker - F

Abbott, Jill

Associate Dean of Academic & Student Services- F
Masters, South Dakota State University
Bacc, Southwest State University

Achterkirch, Lauren

Associate Director, Financial Aid - W

Aguilar, Jessica

Admin Assist, Comm Connection; Career Center - F
Associate, Fergus Falls Community College
Bacc, Minnesota State University Moorhead

Allen, Kevin

Director, Student Life/ELL Advisor -M
Bacc, Concordia College

Allen, Sharlene

Curriculum/DARS/CAS Coordinator – M
Associate, North Dakota State College of Science
Bacc, University of Mary

Andersen, David

Faculty, Criminal Justice – F
Mast, Minnesota State University Moorhead
Bacc, Minnesota State University Moorhead

Anderson, Robert

Dean of Student Services - F
Masters, University Of Illinois at Urbana
Bacc, Southern Illinois University-Carbondale

Anderson, Sharyn

Accounting Technician - F

Anderson, Shawn

Dean of Student Services – M
Mast, Central Connecticut State University
Bacc, Minnesota State University

Arno, Jennifer

Counselor - F
Masters, Moorhead State University
Bacc, University of MN–Morris

Ashworth, Teresa

Faculty, Music - F
Masters, North Dakota State University
Bacc, University of South Dakota

B

Bagent, Karoline

Faculty, Associate Degree Nursing - F
Masters, University of Minnesota

Bagne, Angela

Faculty, Psychology – M
Mast, North Dakota State University

Bahls, Rhonda

Admin. Vice President of Advancement - P
Associate, Minot State Univ-Bottineau Campus

Bainer, James

Faculty, Diesel Mechanics - M
Diploma, Staples Area Vocational Technical
Institute

Bakkegard, Bruce

Faculty, Air Conditioning & Refrigeration - M
Bacc, North Dakota State University

Bamberg, John

Plant Maintenance Engineer - F

Banerji, Nandini

Faculty, Physics - F
Doc, University of Vigo, Spain
Mast, Indian Institute of Technology, Delhi, India
Mast, Indian Institute of Technology, Kanpur, India
Bacc, University of Delhi, India

Barber, John

Faculty, Plumbing – M
Assc, Indian Hills Community College

Barnum, Evonne

Student Services Specialist - M

Barsness, Brooke

Director, Advancement & Foundation - F
Bacc, Saint Olaf College
Associate, Fergus Falls Community College

Baso, Sandra

Faculty, Cosmetology - W
Dipl, Northwest Technical College

Beacom, Teresa

Faculty, Composition – D
Mast, University of Missouri – Kansas City
Bacc, College Of Saint Benedict

Beaton, Allen

Faculty, Accounting - M
Bacc, San Diego State University

Behr, Allen

Business Manager - D / M

Bement, Alecia

Administrative Assistant, Chief Academic Officer - D
Diploma, Northwest Technical College

Benchama, Nouredine

Faculty, Mathematics - M
Doctorate, Wichita State University
Masters, Wichita State University

Beske, Tori

Administrative Assistant, Faculty Support - F
Associate, Fergus Falls Community College

Beyer, Jennifer

Faculty, English - M
Masters, Bemidji State University
Bacc, Bemidji State University

Bischof, Carol

Faculty, Biology - F
Masters, Miami University-Oxford, OH
Bacc, MMS State University-College of Agriculture

Bjerke, M. Shawn

Faculty, Biology - M
Masters, North Dakota State University
Bacc, North Dakota State University

Blaney, Michelle

Online Technologist – P
Mast, University of Kentucky

Bacc, University of Pittsburgh – Main Campus
Boatz, Kristie
Faculty, Dental Hygiene – M
 Bacc, Valley City State University
 Assc, North Dakota State College of Science
 Dipl, Rochester Community College

Boe, Thomas
Faculty, Dental Hygiene - M
 Doc, University of Minnesota
 Mast, St. Cloud State University

Boeder, Harold
Gen. Maintenance Worker - F

Bokinskie, Joanne
Administrative Assistant, Provost - W

Bond, Neil
Gen. Maintenance Worker Lead - F
 Associate, Fergus Falls Community College

Borash, Jason
Faculty, Construction Electrician - W
 Dipl, Minnesota State Community & Technical
 College - Wadena

Bothwell, Kent
Faculty, Physical Education - F
 Masters, South Dakota State University-Brookings
 Bacc, University of South Dakota–Springfield

Brady, Colleen
Faculty, Radiologic Technology - D

Breen, Echo
Faculty, Practical Nursing - F
 Bacc, University of North Dakota

Brewer, Denice
Administrative Assistant, CTS - M

Brewster, Kim
Faculty, Chef Training - M
 Diploma, Northwest Technical College

Brickner, Joan
Faculty, English – M
 Mast, Eastern Michigan University
 Bacc, Wayne State University

Brimhall, Carrie
Director, Enrollment Management - F
 Masters, Capella University
 Bacc, Concordia College at Moorhead
 Associate, Fergus Falls Community College

Broers, Linda
Faculty, Dental Programs - M
 Bacc, University of Mary

Brown, Tracy
ITS1-Help Desk - W
 Associate, Northwest Technical College

Bry, Jeff
Faculty, Sociology - M
 Masters, University of North Dakota
 Bacc, University of North Dakota

Bucholz, Glen
Faculty, Mercury Marine - D
 Associate, Northwest Technical College

Buell, Mary
Associate Registrar - D

Bueng, Karen

Account Clerk Senior - M

Buermann, Jade
IT – Help Desk – M

Buermann, Jordan
Webmaster – Distance Services – P
 Assc, Northwest Technical College – Detroit Lakes

Buermann, Sharon
ITS1 Help Desk - D
 Diploma, Northwest Technical College

Buhain, Dylan
Director of Multicultural Services- F
 Mast, Minnesota State University Mankato

Burlingame, Kathy
Assoc. Dean of Nursing (Interim) - D
 Masters, University of Minnesota

C

Canning, Pamela
Enrollment Clerk - W

Carney, Paul
Faculty, English - F
 Masters, University of Texas-El Paso
 Bacc, Southern Methodist University

Carpenter, Janice
Receptionist/Admin Assistant - P

Carter, Daniel
Faculty, Electronic Technology - W
 Bacc, Bemidji State University

Caswell, Ramona
Faculty, Chemistry – F
 Mast, University of Minnesota
 Bacc, University of Wisconsin Madison

Centko, John
Academic Dean - M

Chadwick, Charles
Foundation Director - M

Clark, Jean
Bookstore Coordinator - D

Clark, June
Nursing Admissions Coordinator - F
 Diploma, Fergus Falls Community College

Clark, Kevin
Gen. Maintenance Worker - F
 Associate, Rochester Community & Technical
 College

Coley Amy
Faculty, Radiologic Technology – D
 Bacc, University of Mary

Cordell, Linda
Information Specialist-DE - P
 Bacc, University of North Dakota
 Associate, University of North Dakota

Craik, Marlene
Faculty, Computer & Network Technology - D
 Associate, Northwest Technical College

Curie, Carrie
Library Technician – M

Curphy, Kathleen
Provost - W
 Spec,MFA,JD, Central Missouri State University

Bacc, University of Northern Iowa

D

Daeuber, Eric

*Faculty, Microcomputer Support Specialist;
Philosophy - M*
Masters, Minnesota State University Moorhead

Dague, Deborah

Associate Registrar - W

Dahlman, Kent

Faculty, Speech, Mass Communications – F
AA, Fergus Falls Community College

Dahring, Bonnie

Financial Aid Assistant - P
Bacc, University of Mary
Associate, Fergus Falls Community College

Daniels, Jessica

Faculty, Biology – F
Bacc, Concordia College Moorhead
Mast, University of Minnesota

Danzeisen, Lloyd

Faculty, Physical Education - F
Masters, St Cloud State University
Bacc, University Of Minnesota-Morris

Denault, Yvonne

Faculty, Graphic Design - M
Bacc, Minnesota State University-Moorhead

Dickey, Christi

Associate Director, Financial Aid - F
Bacc, Minnesota State University Moorhead
Associate, Fergus Falls Community College

Drange, Paul

Online Support Center Supervisor - P
Bacc, Concordia University-St. Paul

Drummond, Donald

Faculty, Mathematics - M
Masters, Minot State University
Bacc, North Dakota State University

Dubbels, Thomas

Counselor - M
Masters, Moorhead State University
Bacc, North Dakota State University

Dumbeck, David

Senior Systems Programmer - P
Diploma, Northwest Technical College

Durand, Heidi

Faculty, Speech Communication - M
Bacc, North Dakota State University

Durward, Lynn

Faculty, Internet Design Technology - D
Masters, Southern Illinois University-Carbondale
Bacc, Southern Illinois University-Carbondale

Dykhoff, Wayne

Faculty, Electrical Line Worker - W

Dyrstad, Heidi

Faculty, Sociology - M
Doctorate, University of North Dakota
Masters, North Dakota State University
Bacc, Concordia College at Moorhead

E

Ebsen, Michelle

Faculty, Sales, Marketing & Management - M

Eklund, Clyde

Faculty, Math- D
Mast, University of Minnesota
Bacc, Bemidji State University

Ellwanger, Diane

Food Service Worker - M

Erickson, Curtis

Faculty, Custom Training - D
Bacc, North Dakota State University

Erickson, Mickal

Faculty, Construction Electrician - M
Diploma, Anoka Technical College

Evans, Bill

Faculty, Biology - W
Masters, Medical College of Georgia
Bacc, The Citadel

F

Field, Marla

Faculty, Sales, Marketing & Management - M
Bacc, Moorhead State University

Fischer, Gary

Faculty, Accounting - W
Masters, Bemidji State University
Bacc, Moorhead State University
Associate, Fergus Falls Community College

Fischer-Walvatne, Rebecca

Adm Assistant, Communications Specialist
MnOnline - P
Bacc, Concordia College-Moorhead

Fjeld, Dixie

Faculty, Administrative Support - M
Bacc, Concordia College-Moorhead

Flaskerud, Debra

Faculty, Computer Programming - M
Masters, North Dakota State University
Bacc, Moorhead State University

Flink, Bobbie

Library Technician - F
Associate, Fergus Falls Community College

Freeman, Roberta

Faculty, Speech –F
Mast, Bemidji State University
Bacc, Bemidji State University

Froelich, Kathleen

Nursing Tutor - D

Fryslie, Sara

Faculty, Speech Communication - M
Masters, North Dakota State University
Bacc, North Dakota State University

G

Gaarder, Carolyn

Faculty, Health Information Technology - M
Bacc, College of Saint Scholastica

Gabrielson, Karen

Administrative Assistant, Academic Dean - F
Associate, Alexandria Technical College

Ganyo, Jennifer

Faculty, English – M
Mast, Minnesota State University Moorhead

Gausman, Thomas

Faculty, Business and Economics - F
Masters, Northern IL University
Bacc, University of Minnesota–Morris

George, Randy

General Maintenance Worker – W

Gilderhus, Jennifer

Faculty, Speech Communication - M
Masters, North Dakota State University
Bacc, North Dakota State University

Gildersleeve, Helene

Dean of Academic & Student Services (Interim) - D
Bacc, Pacific University

Glesne, Carolyn

Director, Institutional Research - F
Bacc, Concordia College at Moorhead
Associate, Fergus Falls Community College

Glynn, Adele

Receptionist - F
Cert, MN Institute of Medical & Dental Asst

Gnahn, Jim

Gen. Maintenance Worker - F

Gnoinsky, Kay

Associate Director, Financial Aid - M

Godwin, Bradley

Manufacturing & Technical Product Dir. –CTS
Bacc, Bemidji State University
Dipl, Hibbing Community College

Godzinski, Ronald

Faculty, Philosophy – F
Mast, Colorado State University
Bacc, California State University

Goltz, Christopher

Faculty, Computer Programming - M

Goodyear, Marcia

Administrative Assistant, Provost - M

Granger, Carol

*Faculty, Medical Administrative Secretary
Technology - W*
Bacc, Moorhead State University

Grant, Connie

Online Student Advisor - P

Green, Dorothy

Account Clerk Senior - M

Griffin, Joseph

Faculty, Auto Body; Auto Mechanics - D
Diploma, Brainerd Staples Regional Technical
College
Diploma, Alexandria Technical College

Grubb, Darrin

Faculty, Sales & Marketing - M
Masters, Minnesota State University Moorhead
Bacc, Minnesota State University Moorhead

Guerrero, Ted

Learning Services Coordinator/Minority Advisor - M

Bacc, Moorhead State University

Guttormson, Steven

Director of Public Relations - F
Bacc, Minnesota State University Moorhead

H**Haagenson, Loren**

Faculty, Human Resources Management - M
Bacc, Minnesota State University Moorhead
Licensure, Minnesota State University Moorhead

Hacking, Judith

Library Technician - F
Bacc, Bemidji State University

Hage, Darren

ITS1-Help Desk - F
Associate, Interstate Business College

Hagen, Keith

Faculty, Telecommunications Engineering - W

Hale, Tammy

Faculty, Practical Nursing - W
Bacc, University of North Dakota

Hall, Nancy

Nurse – D
Mast, University of Minnesota

Halling, Melissa

Faculty, Math

Haltli, Russell

Faculty, Construction Electrician – M
Assc, North Dakota State College of Science

Hanson, Diane

Online Student Advisor – P
Mast, St. Cloud State University
Bacc, St. Cloud State University

Hanson, Lavonn

Faculty Support – F
Bacc, Minnesota State University Moorhead

Hanson, Nancy

Faculty, English – M
Mast, North Dakota State University
Bacc, Minnesota State University Moorhead
Assc, Minnesota State University Moorhead

Hanstad, Tanya

Faculty, Math - F
Masters, North Dakota State University
Bacc, Concordia College at Moorhead

Harper, Lori

Library Assistant - W

Harrell, Marcus

Admissions/equity Advisor – M
Bacc, Concordia College Moorhead

Hauge, Doreen

Library Assistant - D
Associate, Fergus Falls Community College

Haukos, Jeffrey

IT – Help Desk – F
Assc, Mn State Community & Tech College –
Fergus Falls

Haus, Lawrence

Audio Visual Technician - F
Associate, Fergus Falls Community College

Cert, Hennepin Tech. Center S.
Hegarty, Joseph
Faculty, Construction Electrician – W
Assc, North Dakota State College of Science

Heikes, David
Faculty, English – W
Mast, University of South Dakota

Heino, Michael
Learning Services Coordinator - W

Hetland, Mary
Faculty, Psychology - M
Masters, Moorhead State University

Hintgen, Sharon
Faculty, Mathematics - F
Masters, Bemidji State University
Bacc, University of Minnesota–Morris

Hjalmsquist, Dave
Faculty, Computer Programming - M
Diploma, Northwest Technical College

Hjelmstad, Cheryl
Administrative Assistant, Provost - F

Hoban, Jacqueline
Administrative Assistant, Academic Dean - D

Hoffman, Joel
Nursing Dept. Lab Assistant – M

Holmer, Maggie
Human Resources Assistant - P

Holmsquist, Sherrie
Faculty, Sales & Marketing - M
Masters, University of North Dakota
Associate, University of Minnesota-Crkstn

Hotchkiss, David
IT – Help Desk – D/W

Hughes, Alan
Faculty, Construction Electrician - M

Hurt, Bruce
Gen. Repair Worker - D

I

Imdieke, Gerald
Faculty, Construction Electrician - W
Diploma, Northwest Technical College

J

Jacob, Pamela
Faculty Support – F
Assc, MN State Community & Tech College –
Fergus Falls

Jacobson, Jennifer
Faculty, Practical Nursing – M
Mast, University of Southern Alabama
Bacc, Minot State University

Jacobson, Virginia
Account Clerk - W

Jensen, Crystal
Faculty, English - M
Masters, Minnesota State University Moorhead
Bacc, Minnesota State University Moorhead
Bacc, Minnesota State University Moorhead

Jenson, Michele

Associate Registrar - M

Johanson, Carla
Communications Specialist – Distance Services - P
Bacc, Moorhead State University

Johnson, Dacia
Chief Human Resources Officer – F
Mast, Southwest Minnesota State University
Bacc, Minnesota State University Moorhead

Johnson, Deb
Faculty, Leadership Instruction - M
Bacc, Moorhead State University

Johnson, H Dean
Faculty, Electronics - M

Johnson, Jay
Faculty, Mathematics - F
Masters, University of WI-Eau Claire
Bacc, University of Minnesota

Johnson, Kathryn
Project ACCESS Coordinator – F
Bacc, Minnesota State University Moorhead

Johnson, Keith
Faculty, Mechanical Design & Detail – M
Bacc, Minnesota State University Moorhead
Diploma, Moorhead Area Technical Institute

Johnson, Mark
Faculty, Auto Mechanics - D
Diploma, Lake Area Vocational Technical

Johnson, Mark L.
Faculty, Political Science/History – M
Mast, Louisiana State University
Bacc, University of North Dakota

Johnson, Patricia
Learning Services Coordinator - D
Masters, North Dakota State University
Bacc, Moorhead State University

Johnson, Robert
Faculty, Graphic Design Technology - M
Cert, Northwest Technical College

Johnson, Stephen
Faculty, Electrical Lineworker - W
Cert, Minnesota West Community & Technical
College

K

Kaiser, Lynn
Faculty, Sales, Marketing & Management - M
Mast, University of Mary
Bacc, Minnesota State University Moorhead

Karels, Kristi
Online student Advisor – P
Mast, Hamline University
Bacc, University of Minnesota Morris

Kaspari, Jeannie
Dental Lab Assistant – M
Dipl, Minnesota State College - Moorhead

Kava, Brenda
Student Services Generalist - F
Associate, Minnesota State University Moorhead

Keeping, Marsha
Building Services Supervisor - M

Kelman, Deborah

Librarian - F
Masters, Western Michigan University
Bacc, University of Illinois

Kenyon, David

Gen. Maintenance Worker - F

Kisacky, Patricia

Account Clerk - W

Knoke, Karen

Faculty, Mathematics - M
Bacc, Moorhead State University

Knudson, Dan

Director, Operating Systems and Networks - F
Bacc, Minnesota State University Moorhead

Koehnlein, Thomas

Facilities Director - P
Masters, Arizona State University
Bacc, North Dakota State University

Kraemer, David

Faculty, Carpentry - W
Diploma, Northwest Technical College

Kraft, Colleen

Faculty, Chef Training - M
Diploma, Northwest Technical College

Krause, Roger

Gen. Maintenance Worker - D

Kuhnhen, Crystal

Faculty, Dental Assistant - M

Kulish, Christopher

Web Developer/D2L Site Administrator - M
Assc, Minnesota State College - Moorhead

L**Laager, Lon**

Faculty - Counselor - F
Masters, Bemidji State College
Bacc, Bemidji State College

Labish, Jennifer

Student Services Help Desk - M

Lacher, Marcus

Faculty, Adm Support Microcomputer Emphasis - D
Bacc, Minnesota State University

Ladwig, Charlotte

Administrative Assistant, Student Services - F
Associate, Fergus Falls Community College

Lamey, Camelia

Faculty, Biology - M
Masters, University of Oklahoma
Bacc, University of Minnesota

Lane, Barry

Vice President, Learning Services - D
Doc, Regent University
Mast, University of Minnesota

Larson, Daniel

Faculty, Manufacturing Engineering Technology - M
Associate, Alexandria Technical College

Larson, Kristen

Library Technician - M
Assc, Northland Community & Technical College

Leathes, Mavis

Account Clerk Senior - M

Associate, Northwest Technical College

Lebahn, Marilynn

Faculty, Sales, Marketing & Management - M
Bacc, North Dakota State University

Lee, Patrick

Faculty, Construction Electrician - W
Diploma, Northwest Technical College

Lein, Scott

Gen. Repair Worker - M

Leverson, Jerome

Faculty, Electronics Technology - W
Bacc, Bemidji State University

Lewis, Sheridan

Enrollment Clerk - M
Associate, Northwest Technical College

Likness, Marlyce

Enrollment Specialist - M

Linda, Alan

Faculty, Heating, Ventilation & Air Conditioning - W
Bacc, Iowa State University

Line, Donald

Faculty, Construction Electrician - W
Dipl, Wadena Area Vo Tech Institute

Lundborg, Shelley

Faculty, Financial Services Careers - M
Mast, Minnesota State University Moorhead
Bacc, Concordia College-Moorhead

Lysdahl, Jacqueline

Administrative Assistant, Academic Dean - W

M**Magner, Shawn**

Faculty, Biology - D
Doctorate, University of Louisville
Bacc, University of Louisville

Mallory, Dawn

Faculty, Practical Nursing - D
Bacc, University of Wisconsin

Mann, Kirk

Faculty, English - F
Masters, St. Cloud State University
Bacc, Concordia College-Moorhead

Mann, Randolph

Faculty, English as a Second Language - M
Masters, Iowa State University
Bacc, Dickinson State University

Markovetz, Heath

Network Administrator - M
Assc, Northwest Technical College

McClendon, Susan

Nursing Dept. Lab Assistant - D
Dipl, Northwest Technical College

McDaniel, Becky

Faculty, Practical Nursing - M
Masters, University of Mary

McDougall, Earl

Faculty, Carpentry (White Earth) - D
Diploma, Detroit Lakes AVTI

McLeod, Susan

Information Specialist-DE - P

Menz, Loren

Faculty, Construction Management Supervision - M
Bacc, Iowa State University of Science & Technology

Mergens, Brenda

Administrative Assistant, Development; Foundation; Faculty Support - F

Mess, Kristina

Enrollment Manager – F
Bacc, College of Saint Benedict

Meyer, Judy

Associate Director, Financial Aid - D

Michelson, Karen

Faculty, English - F
Masters, Bemidji State University
Bacc, Bemidji State University
Associate, Fergus Falls Community College

Migler, Jerome

Provost - M
Doctorate, University of Minnesota

Miller, Onnalee

Account Clerk - F
Associate, Fergus Falls Community College
Diploma, Fergus Falls Community College

Miltich, Anthony

Faculty, English - F
Masters, Bemidji State University
Bacc, Saint John's University
Bacc, Bemidji State University
Associate, Itasca State Junior College

Miltich, Sharon

Faculty, English - F
Masters, Bemidji State University
Bacc, Bemidji State University
Associate, Itasca Community College

Mindermann, Arlin

Gen. Maintenance Worker - F

Moore, Cynthia

Faculty, Practical Nursing - D
Associate, Fergus Falls Community College
Diploma, Fergus Falls Community College
Cert, Fergus Falls Community College

Morstad, Tracy

Faculty, Associate Degree Nursing - F
Masters, University of Mary
Bacc, Southern IL University

Mrazek, Joseph

Faculty, Mechanical CADD - M
Bacc, Bemidji State University

N**Neece, Shari**

Faculty, English - M
Masters, North Dakota State University
Bacc, Minnesota State University Moorhead

Nelson, Ann

Student Registration - F
Mast, Cardinal Stritch College
Bacc, University of Minnesota

Nerdahl, Joyce

Faculty, Associate Degree Nursing - F
Masters, University of Minnesota
Bacc, Moorhead State University
Associate, Central Lakes College-Brainerd
Licensure, Fergus Falls Community College

Nikolas, Arlin

Faculty, History - F
Masters, North Dakota State University
Bacc, Moorhead State University

Noetzelman, Pamela

Personnel Aide Senior - F

Nordick, Patrick

Chief Financial Officer - P
Bacc, Bemidji State University

O**O'Brien, Vickie**

Faculty, Practical Nursing – W
Bacc, College of St. Benedict

Olds, Wendy

Financial Aid Assistant - P
Assc, Mn State Community & Tech. College –
Detroit Lakes
Diploma, Northwest Technical College
Cert, Northwest Technical College

Olson, Dianne

Financial Aid Assistant - P

Olson, Jody

Faculty, Massage Therapy - W

Olson, Leslie

Administrative Assistant, Academic Dean - M

Olson, Michael

Gen. Maintenance Worker - M

Otto, Teresa

Faculty, English as a Second Language - F
Masters, University of WI-Stout
Bacc, Bemidji State University

Overby, David

Help Desk Director - M
Bacc, University of North Dakota

P**Patrick, Judy**

Faculty, Accounting - M
Bacc, University of New Mexico-Anderson/Manag.

Pederson, Brooks

Faculty, Carpentry - M
Bacc, North Dakota State University

Penney, Stephen

Gen. Maintenance Worker Lead - M

Petermann, Shana

Faculty, Biology - M
Masters, North Dakota State University
Bacc, North Dakota State University

Peterson, Greg

Faculty, Diesel Mechanics - M
Diploma, Northwest Technical College

Peterson, Susan

Bookstore Coordinator - F

Peterson, Susan J.

Faculty, Fashion Marketing & Management - M
Bacc, North Dakota State University

Phillips, Harold

Building Maintenance Foreman - F

Pieske, Gary

Faculty, Professional Sales & Marketing - D
Associate, North Dakota State College of Science

Pladson, Kristie

Faculty, Dental Hygiene - M
Bacc, Valley City State University
Associate, North Dakota State College of Science
Diploma, Rochester Community College

Platz, Dorothy

Library Assistant - W
Masters, Bemidji State University

Potter, Brenda

Faculty, Medical Administrative Secretary
Technology - M
Bacc, Moorhead State University

Preuss, Tim

Faculty, Microcomputer & Network Technology - M
Masters, North Dakota State University

Priewe, Joyce

Administrative Assistant, CTS - D

Pugh, Louise

Faculty, Mathematics - F
Masters, North Dakota State University
Bacc, North Dakota State University

Q

Quamme, Kent

Faculty, Business - F
Masters, University of North Dakota
Bacc, Dickinson State University

R

Rach, Nancy

Counselor - W
Masters, St. Cloud State University
Bacc, Bemidji State University
Associate, Fergus Falls Community College
Associate, Bemidji State University

Redlin, Jennifer

Faculty, Psychology - M
Masters, North Dakota State University
Bacc, North Dakota State University

Reed, Amber

Faculty, Nursing Assistant/Home Health
Aide/Practical Nursing - F
Bacc, Minnesota State University Moorhead
Associate, Fergus Falls Community College
Cert, Fergus Falls Community College

Reese, James

Gen. Maintenance Worker - W

Retzlaff, Jason

Faculty, Physical Education - F
Bacc, North Dakota State University

Associate, Fergus Falls Community College

Richardson, Terry

Faculty, Air Conditioning & Refrigeration - M
Associate, North Dakota State College of Science

Ridder, Lisa

Student Services Help Desk - M
Bacc, Minnesota State University Moorhead

Roberts, Catherine

Administrative Assistant, Distance Education - P
Cert, Northwest Technical College

Robins, Patricia

Gen. Maintenance Worker - D

Roers, Mary

Faculty, Associate Degree Nursing - F
Masters, University of North Dakota
Bacc, Moorhead State University
Associate, Northland Community & Technical
College
Diploma, Fergus Falls Community College

Rolczynski, Margo

Library Assistant - M
Associate, Minnesota State College-Moorhead

Ronneberg, Jeanne

Faculty, Mathematics - W
Bacc, Saint Cloud State University

Rosell, Brian

Faculty, Auto Body - D
Diploma, Northwest Technical College

Rosen, Kenneth

Faculty, Construction Electrician - W
Diploma, Northwest Technical College

Rousslang, Mary

Faculty, Practical Nursing - W
Bacc, Minnesota State University Moorhead
Diploma, Luth Gen & Deac Hosp Sch Of Nursing

Rude, Carol

Receptionist - W

Ruther, Thomas

Faculty, Telecommunications Engineering - W

Ryan, Mary

Director, Client Services CTS - W
Bacc, University of MN-Twin Cities

S

Salo, Roberta

Cosmetology Lab Assistant - W
Associate, Fergus Falls Community College

Sanders, Heather

Supported Employment Worker - W

Schmidt, Douglas

Electrical Line Worker Assistant - W

Schrom, Patricia

Academic Dean - M
Masters, Minnesota State University Moorhead
Bacc, Winona State University

Schulze, Robert

Faculty, Auto Mechanics - M
Masters, University of Wisconsin-Stout
Bacc, University of Wisconsin-Stout

Schumacher, Karen

Health Product Leader, CTS - M
Bacc, University of North Dakota

Schwartz, Eugene
Faculty, Carpentry - W

Schwartz, Leslie
Faculty, Telecommunications Engineering - W
Diploma, Northwest Technical College

Severson, Debra
Bookstore Coordinator - M
Diploma, Northwest Technical College

Seyfried, David
Faculty, Computer Science & Disability Services - F
Doctorate, University of Iowa
Masters, Western Michigan University
Bacc, North Central College

Seyfried, Shirley
Faculty, Associate Degree Nursing - F
Masters, University of Washington
Bacc, Northern Illinois University

Sheppard, Matthew
Facilities Services Supervisor - M

Sheridan, Joanna
IMS/Marketing Specialist - M

Shiple, Carol
Faculty, Accounting - D
Bacc, Moorhead State University
Bacc, Concordia College-Moorhead

Siira, Emily
Director, Student Life Program - F
Bacc, South Dakota State University

Simon, Claudia
Director, Gateway Program (Interim) - M
Bacc, University of North Dakota

Sjolie, Patricia
Faculty, Medical Lab Technology - F
Masters, University of North Dakota
Bacc, University of North Dakota
Associate, Fergus Falls Community College

Sjostrom, Betty
Faculty, Administrative Support; Accounting - D
Masters, Moorhead State University
Bacc, Valley City State University

Smith, Clifford
Dean of Student Services (Interim) - M
Bacc, Bemidji State University

Smith, Sandra
HR Assistant - P

Smithwick, Joann
Bookstore Assistant - M

Sorensen, Jean
Gen. Maintenance Worker - D

Soukup, Michael
Wiring Specialist - W
Associate, Northwest Technical College
Diploma, Northwest Technical College

Sperling, Daniel
Counselor - M
Masters, North Dakota State University
Bacc, Moorhead State University

Stearns, Ronald
Facilities Services Supervisor - D

Stech, William
Minority Advisor - D

Steege, Roselle
Gen. Maintenance Worker - W

Steen, Christopher
Faculty, Marine Mechanics - D
Associate, North Dakota State College of Science

Steidl, Carole
Faculty, Dental Hygiene - M
Bacc, Valley City State University
Associate, North Dakota State College of Science

Stevenson, Joel
Faculty, Internet Design Technology - D

Stigen, Nancy
Faculty, Accounting - M
Bacc, Moorhead State University

Strom, Levon
Faculty, Practical Nursing - D
Masters, University of North Dakota

Such, Tami
Faculty, Practical Nursing - M
Bacc, University of Mary

Swanson, Armond
Account Clerk - W

Swanson, Marlo
Bookstore Coordinator - W

Swedberg, Jessica
Financial Aid Secretary - M
Diploma, Northwest Technical College

Swedberg, Marilyn
Faculty, Psychology - F
Masters, St. Cloud State University
Bacc, Moorhead State College
Associate, Fergus Falls Community College

Swenby, Christopher
Faculty, Carpentry - M
Bacc, Concordia College

Synsteliem, Loren
Faculty, Psychology - F
Masters, University of CT-School of Social Work
Bacc, Concordia College-Moorhead
Associate, Fergus Falls Community College

Szczec-Johnson, Janet
Faculty, Microcomputer & Network Technology - W
Diploma, Wadena AVTI

T

Tangen, Brenda
Personnel Aide - P

Teneyck-Stafki, Susan
Faculty, Child Development Careers - W
Masters, Moorhead State University
Bacc, Moorhead State University

Theisen, Teresa
Associate Provost - P
Masters, Moorhead State University
Bacc, North Dakota State University

Thomas, Sharon
Faculty, Neon Technology - D

Diploma, Northwest Technical College

Thompson, Linda

Dean of Distance Education - P
Masters, University of Mary
Bacc, University of Minnesota
Associate, University of Minnesota-Crookston

Thompson, Teresa

Account Clerk Senior - F

Thordal, David

Faculty, Mathematics - M
Bacc, Moorhead State University

Thurn, Jonathan

Library Assistant - M

Timmer, Steven

Learning Center Tutor - M

Torgerson, Daniel

Gen. Maintenance Worker - M

Torgerson, Theodore

Counselor - D
Bacc, University of Wisconsin

Totland, Carol

Assistant to the President - F
Associate, Minnesota State University Moorhead

Tougas-Mann, Cynthia

Faculty, Child Development Careers - W
Bacc, St Cloud State University

Townsend, Carolyn

Faculty, Practical Nursing - M
Bacc, Moorhead State University
Associate, North Dakota State University

Trautmann, Anna

Food Service Worker - M

Tyree, Alex

ITS1-Help Desk - M
Associate, Northwest Technical College

U

Ukkelberg, Theresa

Faculty, Nurse Assistant - W
Associate, Normandale Community College

Ullmer, Mike

Faculty, Marine Mechanics - D
Associate, Fergus Falls Community College

Ulven, Charles

Faculty, Sales & Marketing - M
Bacc, Moorhead State University

V

Valentine, Ann

President
Doctorate, Iowa State University
Masters, Iowa State University
Bacc, Mount Mercy College, Cedar Rapids, Iowa
Associate, Kirkwood Community College, Cedar Rapids, Iowa

Vickstrom, Susan

Customer Service Specialist - F
Associate, Alexandria Technical College

W

Wagar, Kristy

Account Clerk Senior - M

Wagner, Dennis

Faculty, Construction Electrician - M
Associate, North Dakota State College of Science

Wagner, Linda

Dental Dept. Secretary - M

Ward, Carrie

Faculty, Administrative Support - M
Bacc, Minnesota State University Moorhead

Ward, Mary

Student Services Associate - W
Masters, Southwest State University
Bacc, Bemidji State University

Weber, Dean

Faculty, Plumbing - W
Diploma, Northwest Iowa Community College

Weber, Ross

Faculty, Telecommunications Engineering - W
Diploma, Northwest Technical College

Weibye, Darlene

Faculty, Cosmetology - W
Diploma, Northwest Technical College

Weiss, Rennae

Receptionist - M

Werner, Perry

Librarian - M
Masters, University of Iowa
Masters, Emporia State University
Bacc, University of Nebraska-Kearney

West, Flora

Faculty, Speech Communication - M
Masters, University of Mary
Bacc, Moorhead State University

Westley, Dale

Enrollment Manager - D
Diploma, Detroit Lakes AVTI

Wetzel, Patricia

Faculty, Practical Nursing - M
Masters, University of North Dakota
Bacc, University of North Dakota

Wheeler, Dianne

Enrollment Clerk - W

Whelihan, Thomas

Director, Financial Aid & Registrar - P

Wiederich, Vernon

Facilities Services Supervisor - W

Wiese, Gerald

Faculty, Auto Body - D
Diploma, Central Lakes College-Staples Technical

Wiidakas, Sharon

Faculty, Legal Secretary Technology - M

Wika, Sue

Faculty, Sociology - F
Doctorate, South Dakota State University
Bacc, South Dakota State University

Wilber, Patricia

Chief Academic Officer (Interim) - P
Masters, University of St Thomas
Doctorate, University of North Dakota
Bacc, Rutgers University-New Brunswick

Williams, Ann

Faculty, Biology, Health, & Physical Education - F
Masters, University of Michigan
Bacc, Ball State University

Winter, Doris

Faculty, Administrative Support - W
Diploma, Alexandria Technical College

Wolden, Diane

Faculty, Associate Degree Nursing - F
Masters, University of Minnesota
Bacc, College of Saint Benedict

Wolden, Wayne

Business Manager - W
Diploma, Wadena Technical College

Wolfe, Pamela

Secretary - F

Wosika, Michelle

Enrollment Specialist - D
Diploma, Northwest Technical College

Z

Zachariason, Robert

Faculty, Construction Electrician - M
Diploma, Northwest Technical College

Zilmer, Dennis

Business Manager - F
Bacc, Saint Cloud State University

Zirbes, Joan

Faculty, Reading; Administrative Support - W
Bacc, Moorhead State University

Zurn, Jared

Faculty, Architectural Technology - D
Bacc, North Dakota State University

MSCTC Employees: Campus Directory

Detroit Lakes Campus

Name	Title, Department	Phone
Anderson, Donald	Faculty	218.846.37 46
Behr, Allen	Business Manager	218.846.37 38
Bement, Alecia	Administrative Assistant	218.846.37 51
Brady, Colleen	Program Director/Instructor	218.846.37 40
Bucholz, Glen	Faculty	218.846.37 75
Buell, Mary	Associate Registrar	218.846.37 89
Buermann, Sharon	ITS1 Help Desk	218.846.37 64
Burlingame, Kathy	Faculty	218.846.37 69
Clark, Jean	Bookstore Coordinator	218.846.37 27
Craik, Marlene	Faculty	218.846.37 52
Cummings, Pamela	Faculty	218.846.37 98
Dumbeck, David	Senior Systems Programmer	218.846.37 79
Durward, Lynn	Faculty	218.846.37 97
Ebie, Jason	CLA1-Study Skills/Faculty	218.846.37 17
Erickson, Curtis	Faculty	218.846.37 22
Felt, Rodney	Faculty	218.846.37 84
Fuss, Rene	Receptionist	218.846.37 00
Gilbertson, Keith	CTS-Trade/Service Leader	218.846.37 65
Griffin, Joseph	Faculty	218.846.37 90
Hagen, Kody	Webmaster	218.846.37 39
Hauck, Lisa	Faculty	218.846.37 25
Hauge, Doreen	Library Assistant	218.439.31 22
Hedlund, Helene	Faculty	218.846.37 66
Heins, Janis	Faculty/CLA1-Math Tutor	218.846.37 83
Hoban, Jacqueline	Administrative Assistant	218.846.37 23
Honkola, Warren	CLA1-Accounting Tutor	218.846.37 83
Hughes, Nona	Faculty	218.846.37 74
Hukriede, Ernest	CLA1/Carpentry Assistant	218.473.21 58
Hurt, Bruce	General Repair Worker	218.846.37 50
Jensen, Dan	Faculty	218.846.37 35
Johnson, Mark	Faculty	218.846.37

Johnson, Patricia	Student Svcs Associate	218.846.37 67
Kinsella, Craig	Dean	218.846.37 24
Krause, Roger	Gen Maintenance Worker	218.846.37 50
Lacher, Marcus	Faculty	218.846.37 61
Leff, William	Provost	218.846.37 78
Lynk, Mary	Faculty	218.846.37 19
Magner, Shawn	Faculty	218.846.37 92
Mallory, Dawn	Faculty	218.846.37 69
Mastin, Patricia	CLA1-Nursing Tutor	218.846.37 95
Merry, Karen	Librarian	218.846.37 72
Meyer, Judith	Associate Director - Fin Aid	218.846.37 54
Moore, Cynthia	Faculty	218.846.37 16
Morrison, Barbara	Account Clerk	218.846.37 36
Parker, Tony	Faculty	218.846.37 09
Pieske, Gary	Faculty	218.846.37 37
Priewe, Joyce	CTS Admin Assistant	218.846.37 63
Robins, Patricia	Gen Maintenance Worker	218.846.37 50
Rosell, Brian	Faculty	218.846.37 30
Schurman, Shirley	Learning Svcs Coordinator	218.846.37 86
Shiple, Carol	Faculty	218.846.37 70
Sjostrom, Betty	Faculty	218.846.37 18
Sorensen, Jean	Gen Maintenance Worker	218.846.37 50
Stearns, Ronald	Facilities Services Supv.	218.846.37 50
Stech, William	Minority Advisor	218.846.37 56
Steen, Christopher	Faculty	218.846.37 58
Stevenson, Joel	Faculty	218.846.37 82
Strom, Levon	Faculty	218.846.37 80
Thomas, Sharon	Faculty	218.846.37 47
Torgerson, Theodore	Counselor	218.846.37 14
Ullmer, Mike	Faculty	218.846.37 45
Westley, Dale	Enrollment Manager	218.846.37 77
Wiese, Gerald	Faculty	218.846.37 48
Wosika, Michelle	Enrollment Specialist	218.846.37 20
Zurn, Jared	Faculty	218.846.37 71

Fergus Falls Campus

Name	Title, Department	Phone
Abbott, Jill	Assoc. Dean	218.736.1515
Aguilar, Jessica	Administrative Assistant	218.736.1541
Allen, Kevin	Dir. Multicultural Services	218.736.1624
Andersen, David	Faculty	218.736.1634
Anderson, Robert	Assoc. Dean Student Svcs	218.736.1530
Anderson, Sharyn	Accounting Technician	218.736.1551
Angus, Kristi	Faculty	218.736.1644
Arno, Jennifer	Counselor	218.736.1536
Ashworth, Teresa	Faculty	218.736.1609
Bagent, Karoline	Faculty	218.736.1587
Bamberg, John	Plant Maintenance Engineer	218.736.1615
Barsness, Brooke	Director of College Advancement & Executive Director of the Fergus Area College Foundation	218.736.1508
Bergquist, James	Faculty	218.736.1579
Beske, Tori	Administrative Assistant - Faculty	218.736.1600
Bischof, Carol	Faculty	218.736.1591
Boeder, Harold	General Maintenance Worker	218.736.1615
Bond, Neil	Lead General Maintenance Worker	218.736.1615
Bongers, Mary	Administrative Assistant	218.736.1520
Bothwell, Kent	Baseball Coach	218.736.1619
Breen, Echo	Faculty	218.736.1588
Brimhall, Carrie	Dir. Enrollment Management	218.736.1528
Carney, Paul	Faculty	218.736.1614
Charest, Lori	Faculty	218.736.1605
Clark, June	Admin Assistant - Student Services	218.736.1526
Clark, Kevin	Gen Maintenance Worker	218.736.1615
Clobes, Julie	Faculty	218.736.1583
Cole, Melanie	Faculty	218.736.1338
Daeuber, Eric	Faculty	218.736.1606
Danzeisen, Lloyd	Football Coach Softball Coach	218.736.1617
Dickey, Christi	Associate Director - Fin Aid	218.736.1534
Doering, Stephen	Faculty	218.736.1613
Donath, Jeffrey	Faculty	218.736.1641
Egersdorf, Roberta	Faculty	218.736.1610
Embretson, Deborah	Faculty	218.736.1608
Farnberg, Gretchen	Faculty	218.736.1605
Flink, Bobbie	Library Technician	218.736.1652
Gabrielson, David	Provost	218.736.1504
Gabrielson, Karen	Administrative Assistant	218.736.1575
Gausman,	Faculty	218.736.1643
Thomas		
Gerhardson, Stefanie	Faculty	218.736.1607
Glesne, Carolyn	Dir. Institutional Research	218.736.1514
Glynn, Adele	College Receptionist	218.736.1501
Gnahn, James	Gen Maintenance Worker	218.736.1615
Guttormson, Steven	Director of Public Relations	218.736.1531
Gyolai, Kristine	Faculty	218.736.1605
Hacking, Judith	Library Technician	218.736.1650
Hage, Darren	Info Technology Specialist	218.736.1656
Hagemeister, Kelly	Faculty	218.736.1603
Hagemeister, Linnea	Faculty	218.736.1604
Hall, Louise	Faculty	218.736.1583
Hanstad, Tanya	Faculty	218.736.1633
Haus, Lawrence	Audio Visual Technician	218.736.1660
Hintgen, Sharon	Faculty	218.736.1630
Hjelmstad, Cheryl	Admin Assistant - Provost	218.736.1505
Johnson, Arthur	Faculty	218.736.1603
Johnson, Dacia	Assist Human Resources Dir	218.736.1512
Johnson, Jay	Faculty	218.736.1622
Jurgens, Gene	Faculty	218.736.1631
Kava, Brenda	Financial Aide Technician	218.736.1533
Kelman, Deborah	Librarian	218.736.1651
Kenyon, David	Gen Maintenance Worker	218.736.1615
King, Steven	Faculty	218.736.1620
Knudson, Dan	Director of Operating Systems and Networks	218.736.1657
Laager, Lon	Counselor	218.736.1539
Ladwig, Charlotte	Admin Assist - Student Services	218.736.1525
Lahti II, Richard	Faculty	218.736.1589
Larsen, Nathanael	Faculty	218.736.1505
Lein, Linda	Faculty	218.736.1584
Lindgren, Steve	Faculty	218.736.1644
Lundburg, Paul (Wes)	Dean - General Education & Liberal Studies	218.736.1506
Lunde, John	Food Service	218.739.1305
Malsam, Emily	Faculty	218.736.1338
Mann, Kirk	Faculty	218.736.1612
Mardiyev, Larisa	Faculty	218.736.1639
McDougall, Cindy	Faculty	218.736.1605
McKenzie, Jean	Faculty	218.736.1642
Mergens, Brenda	Admin Assist - Faculty & Executive Director - Fergus Area College Foundation	218.736.1625
Michelson, Karen	Faculty	218.736.1580
Mikkelson, Carol	Faculty	218.736.1606
Miller, Onnalee	Account Clerk	218.736.1553

Miltich, Anthony	Faculty	218.736.1611	Wolden, Diane	Faculty	218.736.1590
Miltich, Sharon	Faculty	218.736.1629	Wolfe, Pam	Admissions Assistant	218.736.1532
Mindermann, Arlin	Gen Maintenance Worker	218.736.1615	Zilmer, Dennis	Business Office Manager	218.736.1550
Morstad, Tracy	Faculty	218.736.1593	Moorhead Campus		
Muehlberg, Beth	Faculty	218.736.1632	Name	Title, Department	Phone
Nelson, Ann	Registrar	218.736.1529	Allen, Sharlene	Curriculum/DARS/CAS Coordinator	218.299.6894
Nelson, Arthur	Faculty	218.736.1597	Anderson, Terri	Faculty/Dental Lab Ass't	218.299.6847
Nerdahl, Joyce	Faculty	218.736.1585	Bainer, James	Faculty	218.299.6542
Nikolas, Arlin	Faculty	218.736.1647	Barnum, Evonne	Office and Admin Spec	218.299.6533
Noetzelman, Pam	Personnel Aide	218.736.1513	Beaton, Allen	Faculty	218.299.6595
Otto, Teresa	Faculty	218.736.1628	Behr, Allen	Business Manager	218.299.6505
Peterson, Mary Carol	Faculty	218.736.1605	Benchama, Nouredine	Faculty	218.299.6830
Peterson, Susan	Bookstore Coordinator	218.736.1556	Beyer, Jennifer	Faculty	218.299.6831
Phillips, Harold	Building Maint Foreman	218.736.1615	Bjerke, M. Shawn	Faculty	218.299.6501
Pierce, Patsy	Faculty	218.735.1588	Brewer, Denice	CTS Admin Assistant	218.299.6576
Prieve, Thomas	Faculty	218.736.1589	Brewster, Kim	Faculty	218.299.6572
Pugh, Louise	Faculty	218.736.1646	Broers, Linda	Faculty	218.299.6515
Quamme, Kent	Faculty	218.736.1640	Bry, Jeff	Faculty	218.299.6833
Reed, Amber	Faculty	218.736.1588	Bueng, Karen	Account Clerk Senior	218.299.6508
Retzlaff, David	Men's Basketball Coach	218.736.1618	Carla, Johanson	Dir. Institutional Relations	218.299.6585
Retzlaff, Jason	Faculty	218.736.1618	Centko, John	Dean	218.299.6504
Risbrudt, Susan	Faculty	218.736.1583	Curie, Carrie	Library Assistant	218.299.6530
Robles, Joyce	Faculty	218.736.1632	Daeuber, Eric	Faculty	218.299.6571
Roers, Mary	Faculty	218.736.1582	Denault, Yvonne	Faculty	218.299.6567
Ruud, Terry	Faculty	218.736.1603	Drummond, Donald	Faculty	218.299.6832
Severson, Amy	Faculty	218.736.1583	Dubbels, Thomas	Counselor	218.299.6516
Seyfried, David	Faculty	218.736.1595	Dyrstad, Heidi	Faculty	218.299.6517
Seyfried, Shirley	Faculty	218.736.1596	Ellwanger, Diane	Food Service Worker	218.299.6598
Siira, Emily	Director of Student Life	218.736.1543	Erickson, Mickal	Faculty	218.299.6619
Sjolie, Patricia	Faculty	218.736.1592	Field, Marla	Faculty	218.299.6627
Sonmor, Rebecca	Faculty	218.736.1613	Fjeld, Dixie	Faculty	218.299.6555
South, Nancy	Director of Housing	218.736.1635	Flaskerud, Debra	Faculty	218.299.6625
Stanley, Susan	Faculty	218.736.1500	Fryslie, Sara	Faculty	218.299.6834
Sundberg, Tanya	Faculty	218.736.1589	Gaarder, Carolyn	Faculty	218.299.6558
Swedberg, Marilyn	Faculty	218.736.1645	Gilderhus, Jennifer	Faculty	218.299.6835
Synsteliën, Loren	Faculty	218.736.1637	Gnoinsky, Kay	Associate Director-Fin Aid	218.299.6539
Thompson, Teresa	Account Clerk Sr	218.736.1552	Goltz, Christopher	Faculty	218.299.6552
Totland, Carol	Admin Assist - President	218.736.1502	Goodyear, Marcia	Administrative Assistant	218.299.6503
Valentine, Dr. Ann	President	218.736.1503	Green, Dorothy	Account Clerk Senior	218.299.6507
VanSickle, Jane	Faculty	218.735.1639	Grubb, Darrin	Faculty	218.299.6836
Vergiels, Caroline	Faculty	218.736.1584	Guerrero, Ted	Minority Counselor/Advisor	218.299.6514
Vickstrom, Susan	Admin Assist- Student Services	218.736.1540	Gunderson, Melford	Faculty	218.299.6632
Wagner, John	Faculty	218.736.1338	Gunwall, David	Faculty	218.299.6549
Wagnild, Kathleen	Faculty	218.736.1584	Haagenson, Loren	Faculty	218.299.6551
Wika, Sue	Faculty	218.736.1636	Hapala, Mary	Account Clerk	218.299.6611
Williams, Ann	Volleyball Coach Women's Basketball Coach	218.736.1621	Harikrishnan, Raksha	Secretary - Gateway	218.477.4316
Williams, Marcia	Faculty	218.736.1639	Heiler, Rebecca	CTS-Administrative Asst	218.299.6566
			Helmstetter, Allen	Faculty	218.299.6501
			Hetland, Mary	Faculty	218.299.6525
			Hinsperger, Sue	Faculty	218.299.6522

Hjalquist, Dave	Faculty	218.299.6624	Sheppard, Matthew	Facility Services Supervisor	218.299.6519
Holmquist, Sherrie	Faculty	218.299.6628	Sheridan, Joanna	Instructional Management System/Marketing Specialist	218.299.6635
Hughes, Alan	Faculty	218.299.6526	Simon, Claudia	Interim Director of Gateway	218.477.4338
Jensen, Crystal	Faculty	218.299.6837	Smith, Clifford	Interim Dean - Student Services	218.299.6535
Jenson, Michele	Associate Registrar	218.299.6593	Smithwick, Joann	Bookstore Assistant	218.299.6570
Johanson, Carla	Dir. institutional Relations	218.299.6585	Sperling, Daniel	Counselor	218.299.6609
Johnson, Dean	Faculty	218.299.6557	Steidl, Carole	Faculty	218.299.6523
Johnson, Dean H	Faculty	218.299.6520	Stigen, Nancy	Faculty	218.299.6510
Johnson, Keith	Faculty	218.299.6518	Such, Tami	Faculty	218.299.6638
Johnson, Randall	Faculty	218.299.6534	Swedberg, Jessica	Financial Aid Advisor	218.299.6511
Johnson, Robert	Faculty	218.299.6575	Swenby, Christopher	Faculty	218.299.6565
Knoke, Karen	Faculty	218.299.6587	Thordal, David	Faculty	218.299.6524
Kraft, Colleen	Faculty	218.299.6572	Timmer, Steven	CLA1	218.299.6617
Labish, Jennifer	Student Services Help Desk	218.299.6500	Torgerson, Daniel	Gen Maintenance Worker	218.299.6578
Lamey, Camelia	Faculty	218.299.6838	Townsend, Carolyn	Faculty	218.299.6563
Larson, Daniel	Faculty	218.299.6564	Trautmann, Anna	Food Service Worker	218.299.6598
Leathes, Mavis	Account Clerk Senior	218.299.6569	Tweeton, Lester	Faculty	218.299.6550
Lebahn, Marilynn	Faculty	218.299.6608	Tyree, Alex	ITS1-Help Desk	218.299.6630
Lein, Scott	Gen Repair Worker	218.299.6578	Ulven, Charles	Faculty	218.299.6626
Leverson, Harris	Gen Maintenance Worker	218.299.6578	Wagar, Kristy	Account Clerk Senior	218.299.6509
Lewis, Sheridon	Enrollment Clerk	218.299.6599	Wagner, Dennis	Faculty	218.299.6540
Likness, Marlyce	Enrollment Specialist	218.299.6599	Wagner, Linda	Receptionist-Dental	218.299.6560
Lundborg, Shelley	Faculty	218.299.6589	Ward, Carrie	Faculty	218.299.6613
Lundquist, Jarrett	CLA1-Study Skills	218.299.6617	Weiss, Rennae	Receptionist	218.299.6500
Mann, Randolph	Faculty	218.299.6839	Werner, Perry	Librarian	218.299.6531
Markovetz, Heath	ITS1 Help Desk	218.299.6568	West, Flora	Faculty	218.299.6556
McDaniel, Becky	Faculty	218.299.6637	Wetzel, Patricia	Faculty	218.299.6529
McFarlen, Louisa	CLA2/Nursing Program Assistant	218.299.6620	Wiidakas, Sharon	Faculty	218.299.6562
McKeever, Laurie	Enrollment Manager	218.299.6583	Zachariason, Robert	Faculty	218.299.6546
Menz, Loren	Faculty	218.299.6547			
Migler, Jerome	Campus Provost	218.299.6506			
Mrazek, Joseph	Faculty	218.299.6592			
Neece, Shari	Faculty	218.299.6840			
Olson, Leslie	Administrative Assistant	218.299.6544			
Olson, Michael	Gen Maintenance Worker	218.299.6578			
Overby, David	Help Desk Director	218.299.6521			
Patrick, Judy	Faculty	218.299.6621			
Pederson, Brooks	Faculty	218.299.6565			
Penney, Stephen	Lead GMW	218.299.6578			
Petermann, Shana	Faculty	218.299.6841			
Peterson, Greg	Faculty	218.299.6543			
Peterson, Susan	Faculty	218.299.6629			
Pladson, Kristie	Faculty	218.299.6588			
Potter, Brenda	Faculty	218.299.6612			
Preuss, Tim	Faculty	218.299.6614			
Redlin, Jennifer	Faculty	218.299.6842			
Richardson, Terry	Faculty	218.299.6602			
Rolczynski, Margo	Administrative Assistant	218.299.6594			
Schrom, Patricia	Dean Health/Human Services	218.299.6631			
Schulze, Robert	Faculty	218.299.6548			
Schumacher, Karen	CTS-Health Product Leader	218.299.6586			
Severson, Debra	Bookstore Coordinator	218.299.6570			

Wadena Campus

Name	Title, Department	Phone
Abel, Roger	Faculty	218.631.7878
Achterkirch, Lauren	Associate Director of Financial Aid	218.631.7820
Amundson, Sonja	Faculty	218.631.7883
Baso, Sandra	Faculty	218.631.7899
Bokinskie, Joanne	Administrative Assistant	218.631.7811
Brown, Tracy	ITS1 Help Desk	218.631.7872
Carter, Daniel	Faculty	218.631.7837
Cox, Laura	CLA1-Nursing Tutor	218.631.7862
Curphy, Kathleen	Provost	218.631.7810
Dague, Deborah	Associate Registrar	218.631.7819
Drange, Paul	Enrollment Manager	218.631.7817

Ehrmantraut, Tana	CLA2-Pharmacy Tech	218.631.78 90	Ruther, Thomas	Faculty	218.631.78 92
Evans, Bill	Faculty	218.631.79 05	Ryan, Mary	Dir. Client Services- CTS	218.631.78 69
Fischer, Gary	Faculty	218.631.78 47	Salo, Roberta	CLA1-Cosmetology	218.631.78 24
Granger, Carol	Faculty	218.631.78 27	Schwartz, Eugene	Faculty	218.631.78 48
Hagen, Keith	Faculty	218.631.78 59	Schwartz, Leslie	Faculty	218.631.78 64
Hale, Tammy	Faculty	218.631.78 89	Smythe, Kristi	Faculty	218.631.78 29
Harper, Lori	Library Assistant	218.631.78 66	Soukup, Michael	Wiring Specialist	218.631.78 76
Heino, Michael	Learning Svcs Coordinator	218.631.78 70	Stech, William	Minority Advisor	218.631.78 23
Heins, Janis	Faculty	218.631.78 00	Steege, Roselle	Gen Maintenance Worker	218.631.78 00
Hunter, Dean	Faculty	218.631.78 39	Swanson, Armond	Account Clerk	218.631.78 16
Imdieke, Gerald	Faculty	218.631.78 49	Swanson, Marlo	Bookstore Coordinator	218.631.78 25
Jacobson, Virginia	Account Clerk	218.631.78 15	Szczech-Johnson, Janet	Faculty	218.631.78 55
Johnson, Stephen	Faculty	218.631.78 85	Teneyck-Stafki, Susan	Faculty	218.631.78 88
Kassa, Anthony	Faculty	218.631.79 15	Tougas-Mann, Cynthia	Faculty	218.631.78 29
Kisacky, Patricia	Account Clerk	218.631.78 14	Ukkelberg, Theresa	Faculty	218.631.78 91
Koski, Mary	Dean of Academic & Student Services	218.631.78 12	Ward, Mary	Student Svcs Associate	218.631.78 32
Kraemer, David	Faculty	218.631.78 38	Weber, Dean	Faculty	218.631.78 40
Lee, Patrick	Faculty	218.631.78 75	Weber, Ross	Faculty	218.631.78 79
Leverson, Jerome	Faculty	218.631.78 57	Weibye, Darlene	Faculty	218.631.78 95
Linda, Alan	Faculty	218.631.78 22	Wheeler, Dianne	Enrollment Clerk	218.631.78 21
Line, Donald	Faculty	218.631.79 14	Wiederich, Vernon	Facilities Services Supv.	218.631.79 06
Lysdahl, Jacqueline	Administrative Assistant	218.631.78 17	Winter, Doris	Faculty	218.631.78 43
Miller, Donna	Faculty	218.631.78 42	Wolden, Wayne	Business Manager	218.631.78 13
Mosher, Kitty	Faculty	218.631.79 27	Zirbes, Joan	Faculty	218.631.78 58
Ollie, Shirley	Vocational Advisor	218.631.78 82			
Olson, Jody	Faculty	218.631.79 08			
Platz, Dorothy	Library Assistant	218.631.78 94			
Rach, Nancy	Counselor	218.631.78 74			
Reese, James	Gen Maintenance Worker	218.631.78 00			
Rinkel, Sharyl	Faculty	218.631.78 00			
Ronneberg, Jeanne	Faculty	218.631.78 23			
Rosen, Kenneth	Faculty	218.631.78 60			
Rousslang, Mary	Faculty	218.631.78 68			
Rude, Carol	Receptionist	218.631.78 28			

Perham / Regional

Name	Title, Department	Phone
Ames-Ohnstad, Terisa	Online Student Advisor for MN Online Call Center	800.456.85 19
Bahls, Rhonda	Administrative Assistant	218.347.62 35
Cordell, Linda	Information Specialist for MN Online Call Center	800.456.85 19
Dahring, Bonnie	Financial Aid Assistant	218.347.62 38

Dumbeck, David	Senior Systems Programmer	218.846.37 79
Erickson, Linda	Human Resources Director	218.347.62 26
Fairburn, Kimberly	Financial Aid Assistant	218.347.62 42
Fischer-Walvatne, Rebecca	Administrative Assistant	218.347.62 36
Gory, Thomas	Information Specialist for MN Online Call Center	800.456.85 19
Grant, Connie	Online Student Advisor for MN Online Call Center	800.456.85 19
Koehnlein, Thomas	Dir of Facilities	218.347.62 11
LeDoux, Debra	Online Student Advisor for MN Online Call Center	800.456.85 19
McLeod, Susan	Information Specialist for MN Online Call Center	800.456.85 19
Nordick, Patrick	Chief Financial Officer	218.347.62 09
Olds, Wendy	Financial Aid Assistant	218.347.62 40
Ollie, Shirley	Vocational Advisor	218.347.69 82
Olson, Dianne	Financial Aid Assistant	218.347.62 44
Roberts, Catherine	Administrative Assistant	800.456.85 19
Smith, Sandra	HR Assistant	218.347.62 41
Tangen, Brenda	Personnel Aide, Sr.	218.347.62 43
Theisen, Teresa	Associate Provost	800.456.85 19
Thompson, Linda	Dean	800.456.85 19
Whelihan, Thomas	Dir. Financial Aid & Regist.	218.347.62 28

INDEX

Ability to Benefit	13	High School: Tech Prep	15
Academic Advising.....	22	Immunization Record Requirement.....	14
Academic Appeals and Grievance	23	Incomplete Grades	22
Academic Assessment.....	19	Independent Study	16
Academic Forgiveness.....	22	International Students	14
Academic Program Assessment.....	21	Laptop	32
Academic Support Services	19	Limited English Proficiency	31
Access to Information.....	12	Minnesota Transfer	21
Accreditation	2, 10	MSCTC Detroit Lakes Campus	4
Admission	12	MSCTC Fergus Falls Campus	4
Advanced Standing Placement	13	MSCTC Mission	3
Assessment Testing & Course Placement .	13	MSCTC Moorhead Campus	5
Attendance / Non-Attendance	19	MSCTC Vision.....	3
Auditing Courses.....	20	MSCTC Wadena Campus.....	5
Bookstore.....	30	Nondiscrimination in Employment & Education Opportunity.....	47
Campus Dining	29	Notification under Title IX & Section 504 ...	56
Campus Security.....	35	Orientation.....	12
Campus Visits	14	Post Secondary Enrollment Options	15
Career Exploration & Placement Services .	19	Program Interruption	23
Cell Phone Use	35	Program Inventory.....	58
Change in Student Record.....	18	Program Profiles	60
Child Care	30	Prohibition of Concealed Weapons	46
Classification of Students.....	18	Registration	16
Consumer Information.....	30	Repeated Courses	22
Counseling & Guidance	30	Satisfactory Academic Progress	22
Course Descriptions.....	108	Special Students	15
Credit by Exam	14	Student Applicants	14
Credit by Experiential Learning	13	Student Clubs & Activities	31
Custom Training.....	8	Student Communications	33
Data Disclaimer.....	2	Student Conduct Code	40
Disabilities	30	Student Credit Load	20
Distance Education - On-line Information.....	6	Student Directory Data	18
Drop/Add	20	Student Housing.....	34
Drug Free Environment.....	36	Student Identification.....	34
Facilities Use.....	39	Student Involvement in Decision-Making ...	45
Family Ed Rights & Privacy (FERPA).....	17	Student Parking.....	34
Financial Return of Title IV Funds	27	Student Records	17
Financial Aid Appeals & Reinstatement	29	Student Right to Know.....	34
Financial Aid Satisfactory Academic Progress		Student Services Appeals	34
Financial College Fees.....	24	Theater.....	34
Financial Deferment / Payment Plan.....	27	Tobacco Free Environment	45
Financial Non-Resident Tuition	24	Transcript Requests	35
Financial Residency.....	24	Transfer of Credit	17
Financial Senior Citizen Fee	24	Transfer To Four-Year Institution	16
Financial Student Payments	25	Transfer To MSCTC	17
Financial Tuition	24	Travel Abroad.....	35
Financial Tuition / Fees Chart	26	Veterans Benefits.....	15
Financial Tuition Reciprocity	24	Visual Arts	36
Financial Tuition Refund	27	Withdrawal	20
General Studies	21	Workplace Violence	45
Grade Point Average.....	22		
Grading	22		
Graduation Policy.....	19		
Health & Safety Policy.....	40		
Health Services / Insurance	31		