METROPOLITAN
COMMUNITY COLLEGE
WWW.MCCNEB.EDU | 402.457.2400

2010-2011 COLLEGE CATALOG

YOUR LIFE...YOUR PATH...YOUR CHOICE

Important Contacts

Information Center
(402) 457-2400
(800) 228-9553
www.mccneb.edu

Registration
(402) 457-5231

Academic Resource Centers
Elkhorn Valley Campus – (402) 289-1266
Fort Omaha Campus – (402) 457-2438
Fremont Area Center – (402) 317-3040
Sarpy Center – (402) 537-3864
South Omaha Campus – (402) 738-4537

Admissions
(402) 457-2422

Adult Education (AE)
(402) 457-2312

Bookstores
Elkhorn Valley Campus – (402) 289-1208
Fort Omaha Campus – (402) 457-2308
Sarpy Center – (402) 537-3850
South Omaha Campus – (402) 738-4508

Campus Deans
Applied Technology Center – (402) 763-5810
Bellevue/Offutt Center – (402) 827-8502
Elkhorn Valley Campus – (402) 289-1312
Fort Omaha Campus – (402) 457-2201
Fremont Area Center – (402) 317-3001
Sarpy Center – (402) 537-3800
South Omaha Campus – (402) 738-4600

Career Network Centers
Elkhorn Valley Campus – (402) 289-1416
Fort Omaha Campus – (402) 457-2331
South Omaha Campus – (402) 738-4555

Community Education
(402) 457-2620

Corporate Education and Training
(402) 457-2491

Development (GED)
(402) 457-2312

Disability Support Services
Elkhorn Valley Campus – (402) 289-1315
Fort Omaha Campus – (402) 457-2580
Sarpy Center – (402) 537-3841
South Omaha Campus – (402) 738-4757

Financial Aid/Veteran Services
Central Office – (402) 457-2330

Foundation
(402) 457-2346

International Students
(402) 457-2422

Libraries
Elkhorn Valley Campus – (402) 289-1206
Fort Omaha Campus – (402) 457-2306
South Omaha Campus – (402) 738-4506 or
(402) 444-4850

Public Safety
General – (402) 457-2222
Elkhorn Valley Campus – (402) 289-1218
Fort Omaha Campus – (402) 457-2313
South Omaha Campus – (402) 738-4569

Records
(402) 457-2353

Resident and Student Life
(402) 457-2338

Single Parent/Homemaker Program
(402) 457-2319

Student Accounts
(402) 457-2405

Student Retention Services (TRiO)
(402) 457-2318

Testing Centers
Applied Technology Center – (402) 763-5808
Bellevue Center – (402) 827-8508
Elkhorn Valley Campus – (402) 289-1278
Fort Omaha Campus – (402) 457-2204
Fremont Area Center – (402) 721-2507
Offutt Center – (402) 292-3330
Sarpy Center – (402) 537-3800
South Omaha Campus – (402) 738-4613

METROPOLITAN COMMUNITY COLLEGE
OMAHA, NEB.

2010-2011
COURSE CATALOG

This catalog is effective Fall quarter 2010. Every possible step has been taken to ensure its accuracy; however, sometimes changes must be made in the students' or the College's best interest. Metropolitan Community College (MCC) reserves the right to cancel or modify courses. MCC's official catalog is online. The information on the MCC catalog web site will reflect the most current catalog information, making only editing adjustments to this catalog.

Note: Prospective and current students have the right to request additional information about material contained in this catalog by contacting Student Services.

Welcome

Welcome to MCC. You will find that MCC is a comprehensive community college that focuses on providing opportunities for students to succeed in their education, career and life. We offer an educational value and quality that is affordable, accessible and convenient.

As you look through the catalog, we hope you find a program, class or service to meet your needs. MCC offers an academic transfer program for students interested in getting a bachelor's degree, as well as more than 175 degrees and awards in career and technical areas. High school students can begin their college experience by taking classes through the CollegeNOW!, Career Academy and dual enrollment programs. Community Education provides opportunities in classes for lifelong learners. Business and industry can arrange specialized training through MCC's Corporate Education & Training Division.

Classes are offered at a variety of times and at convenient locations throughout our service area of Dodge, Douglas, Sarpy and Washington counties. For students too busy to come to campus, MCC offers our e-learning options that let students take classes at home, at the office or at a community site via interactive television, course conferencing or the Internet. More than 100 online classes are offered each quarter.

Of course, MCC is more than classes or brick and mortar; we are a community of faculty and staff who are student-centered, creative and dedicated to quality instruction and student services. We offer a diverse, urban college with an atmosphere of small college friendliness. Best wishes to you as you explore the opportunities that MCC has to offer!

ACCREDITATION

MCC is accredited by the Higher Learning Commission and is a member of the North Central Association.

Higher Learning Commission
30 N. LaSalle St. Ste 2400
Chicago, IL 60602-2504
(800) 621-7440; (312) 263-0456
Fax: (312) 263-7462
www.ncahigherlearningcommission.org

MISSION

Our mission at Metropolitan Community College is to serve our community with distinction. We are a role model in higher education. We will deliver:

- Quality learning opportunities.
- Lifelong educational programs.
- Services that support personal and professional enrichment and training.
- Programs and services that stimulate economic and workforce development.
- Courses and programs that provide a transferable path to baccalaureate institutions.
- Career/vocational education supporting business and economic partnerships.
- A positive learning environment that promotes student success.

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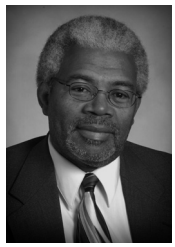
2010-2011 BOARD OF GOVERNORS

RON HUG
District 1

PATRICK LEAHY
District 1



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District 3

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District 4

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District 5

JIM NEKUDA
District 5

TIM POTTER
At-Large

MCC CATALOG 1010

The College catalog is a wonderful resource; however, so much information at once can seem confusing. Here is a little information on the catalog's organization to make it easier to use.

Where do you go when you need that class your friends told you they were taking? What is that prerequisite course for college algebra? Since the catalog has general education courses, should I take those before taking my major requirements? You will find these and other answers below.

General Education Requirements

All programs of study have general education requirements dedicated to educating the whole person. These courses broaden opportunities and enrich perspectives by preparing students for the ever-changing world outside the classroom.

Catalog Editions

A student who does not complete program requirements within four years is subject to the current catalog or any preceding catalog within four years if he/she attended during that catalog year.

Major Requirements

Associate degrees and certificates require completion of a specific set of courses designated as major requirements. These courses give students career skills or prepare students for transfer to other institutions.

Since some major requirement courses are offered once or twice a year, students should feel free to combine some general education courses with their major requirements to ensure timely graduation.

Prerequisites

Many general education and major requirements have prerequisites: courses that must be successfully completed prior to enrollment in the course.

Course Descriptions

Beginning on page 256 are course descriptions of all courses currently taught at MCC. The course description provides a brief summary of the class. Many course prerequisites are listed at the beginning of the course description.

Developmental Classes and Basic Skills Assessment

Good English, math, reading and science skills are essential to success at MCC. New students to MCC are expected to take the College's basic skills assessment in order to assist counselors and advisors in determining readiness for college-level coursework.

Students not yet ready to begin college-level courses should (or must) complete courses in developmental education classes in order to review or re-learn the academic skills necessary to succeed in college-level coursework.

The classes below in **bold** are the first possible developmental courses MCC offers. In many cases, these courses are needed before students can register for the 1000-level courses in their particular program. For example: If a student needs MATH 1310 and tested into MATH 0910, he/she would need to take MATH 0910, MATH 0920 and MATH 0921 or MATH 0960 before taking MATH 1310. If a student needed SOCI 1010 and tested into the RDLS 0100 area in reading, he/she would need to take RDLS 0100 before SOCI 1010 to satisfy the reading prerequisite. The math, reading, English and science areas are listed here for your use.

Math

MATH 0900 or **0910** or→ (If Algebra is needed)→**MATH 0920** and **MATH 0921** or **MATH 0960**

↓ MATH 1240 or MATH 1220

↓ MATH 1310

Reading

RDLS 0100

↓

Any 1000-level course that requires college-level reading skills

English	**Science**
ENGL 0960	**SCIE 0900**
↓ ↓ English Level 1 classes	BIOS 1010 and other BIOS, SCIE and CHEM

If you have questions regarding the use of the catalog, contact Student Services to speak with an advisor or counselor. We want to serve you in the most professional, personal and effective manner.

ACADEMIC CALENDAR FOR SUMMER 2010–SUMMER 2011

Summer 2010

Classes begin for ten-week and first five-week sessions ..... June 6 (SU)
Independence Day recess (College closed) ..... July 4–5 (SU-M)
Classes end for first five-week session ..... July 12 (M)
Classes begin for second five-week session ..... July 13 (T)
Classes end for ten-week and second five-week sessions ..... Aug. 16 (M)

Fall 2010

Labor Day recess (College closed) ..... Sept. 4–6 (SA-M)
Classes begin ..... Sept. 7 (T)
Classes end ..... Nov. 22 (M)

Winter 2010–2011

Thanksgiving Day recess (College closed) ..... Nov. 25–28 (TH-SU)
Classes begin ..... Dec. 1 (W)
Last class day before holiday recess ..... Dec. 21 (T)
Holiday recess (College closed) ..... Dec. 24–Jan. 2 (F-SU)
Classes resume after holiday recess ..... Jan. 3 (M)
Martin Luther King recess (College closed) ..... Jan. 17 (M)
Classes end ..... Feb. 28 (M)

Sprint 2011

Classes begin ..... March 9 (W)
Spring recess (College closed) ..... April 23–24 (SA-SU)
Classes end ..... May 24 (T)
Memorial Day recess (College closed) ..... May 28–30(SA-M)

SUMMER 2011

Classes begin for ten-week and first five-week sessions ..... June 6 (M)
Independence Day recess (College closed) ..... July 4 (M)
Classes end for first five-week session ..... July 11 (M)
Classes begin for second five-week session ..... July 12 (T)
Classes end for ten-week and second five-week sessions ..... Aug. 16 (M)

MCC'S HISTORY

The present Nebraska community college system came into being in 1971 when the Nebraska Legislature created eight technical community college areas across the state. One of these new areas was called the Eastern Nebraska Technical Community College Area, which encompassed Dodge, Douglas, Sarpy and Washington counties. An area vocational technical school operated by the Omaha Board of Education already served part of this area.

MCC was created in 1974 when the Legislature consolidated the original eight technical community college areas into six. That year, the programs, personnel, assets and liabilities of the former Omaha Nebraska Technical Community College Area merged with the Eastern Nebraska Technical Community College Area under a new name stipulated by amended legislative statutes: the Metropolitan Technical Community College Area. In 1992, the Legislature voted to change the name to Metropolitan Community College Area.

With a 2007–08 enrollment of 49,696 students, MCC is one of the fastest growing postsecondary institutions in Nebraska. This enrollment compares to 2,430 credit students in 1974–75, the College's first year.

PROFILE

MCC is a comprehensive, full-service public community college supported by the taxpayers of Dodge, Douglas, Sarpy and Washington counties. The College's mission is to serve our community with distinction. We are a role model in higher education.

MCC offers more than 100 one-year and two-year programs in business administration, computer and office technologies, culinary arts, industrial and construction technologies, health and public services, social sciences and services and visual and electronic technologies, as well as academic transfer programs. General support courses, classes for business and industry and continuing education courses are also important parts of the College's service to the community.

PROGRAM ACCREDITATION

All College programs are approved by the Nebraska State Department of Education for veterans' educational benefits.

In addition, the accrediting bodies of various professional associations approve many MCC educational programs.

- The Associate Degree Nursing Program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006.
- The Associate Degree Nursing and Practical Nursing programs are approved by the Nebraska Board of Nursing, P.O. Box 95044, Lincoln, NE 68509.
- The Automotive Technology and Auto Body Technology programs are accredited by the National Automotive Technicians Education Foundation (NATEF), 101 Blue Seal Dr. Ste 101, Leesberg, VA 20175.
- All MCC Business programs are accredited by the Association of Collegiate Business Schools and Programs (ACBSP), 11520 W. 119th St., Overland Park, KS 66213.
- The Culinary Arts Program is accredited by the American Culinary Federation Accrediting Commission (ACFEIAC), 10 San Bartola Dr., St. Augustine, FL 32086.
- The Dental Assisting Program is accredited by the Commission on Dental Accreditation of the American Dental Association (ADA), 211 E. Chicago Ave., Chicago, IL 60611.
- The Early Childhood Education Program is accredited by the National Association for the Education of Young Children (NAEYC), 1313 L St. NW Ste 500, Washington, D.C. 20005.
- The Financial Planning Certificate of Achievement in personal financial planning is a registered program with Certified Financial Planning Board of Standards, Inc., 1670 Broadway Ste 600, Denver, CO 80202
- The Human Services Program is accredited by the Council for Standards in Human Service Education (CSHSE), 1900 Galen Dr., Ste. 412, Houston, TX 77030.
- The Legal Assistant Program is approved by the American Bar Association (ABA), 321 N. Clark St., Chicago, Il 60610.
- Real Estate courses are approved by the Nebraska Real Estate Commission, 1200 N St. Ste 402, P.O. Box 94667, Lincoln, NE 68509.
- The Respiratory Care Technology Program is accredited by the Commission on Accreditation for Respiratory Care, 1248 Harwood Rd., Bedford, TX 76021.

- Theatre Technology is a registered apprenticeship program approved to grant an apprenticeship certificate by the U.S. Department of Labor, Frances Perkins Building, 200 Constitution Ave., NW Washington, D.C. 20210.

NONDISCRIMINATION AND EQUAL OPPORTUNITY

Metropolitan Community College does not discriminate on the basis of race, color, national origin, religion, sex, marital status, age, disability or sexual orientation in admission or access to its programs and activities or in its treatment or hiring of employees. The College complies with Title VI of the Civil Rights Act of 1964, the Civil Rights Act of 1990, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, as amended, the Age Discrimination Act of l975, related Executive Orders 11246 and 11375 and all civil rights laws of the State of Nebraska and the City of Omaha.

Contacts: Concerning Title VI (race), Title IX (gender equity), Section 504 (disability) and Americans with Disabilities Act/Program and Services Accessibility and Age, contact:

- Vice President of Campuses and Student Affairs: (402) 457-2681 (students)
- Associate Vice President of Human Resources: (402) 457-2236 (employees)
- Director of Facilities: (402) 457-2529 (accessibility)

Concerning hiring and employment-related complaints of discrimination or harassment based on race, color, national origin, religion, sex, marital status, age, disability, sexual orientation, retaliation or for affirmative action and diversity issues, contact:

- Associate Vice President for Equity and Diversity: (402) 457-2649

The address for all of the above individuals is as follows:

Metropolitan Community College
P.O. Box 3777
Omaha, NE 68103-0777

OMBUDSPERSON

Any person with information concerning possible violations of law or fiscal waste or fiscal mismanagement in College operations may contact:

Nicole Neesen
College Ombudsperson
6542 S. 118th St.
Omaha, NE 68137
Office: (402) 457-7200 ext. 8030
Cell phone: (402) 612-1843
Email: nneesen@cox.net

DIVERSITY

MCC believes that diversity, in many forms and expressions, is essential to its educational mission and to its success as an institution. We value the pluralistic nature of our society and recognize diversity that includes, but is not limited to, race, ethnicity, religion, culture, social class, age, gender, sexual orientation and physical or mental capability. We respect the variety of ideas, experiences and practices that such diversity entails. It is our commitment to ensure equal opportunity and to sustain a climate of civility for all who work or study at MCC or who otherwise participate in the life of the College. We celebrate and embrace diversity as a way to promote respect and enhance academic experiences, making our College a welcoming place to learn and grow while meeting the needs of a diverse population.

Faculty and staff are committed to creating a curriculum and a learning environment that empower students to become contributing members of an increasingly multicultural and diverse society. The College provides workshops, seminars, publications and projects that foster the understanding and benefits of diversity and enhance shared values. Staff are encouraged to nurture the sensitivity and mutual respect that is fundamental to valuing diversity. Through a supportive intellectual and social climate, MCC promotes freedom of thought, speech, innovation and creativity.

MCC FOUNDATION

The Metropolitan Community College Foundation was established in 1977 as a separate, not-for-profit, IRS approved 501(c)3 corporation. The Foundation's mission is to provide financial support for students, faculty, staff, programs and facilities and is promoted by a volunteer Board of Directors and development staff.

By connecting MCC with community supporters and alumni, the Foundation advances the College's mission and values and helps build the community it serves. From student scholarships to capital projects, the MCC Foundation offers prospective donors a wide array of giving opportunities to align their giving interests to the special projects underway at MCC.

The MCC Foundation accepts gifts of cash, life insurance, personal property, securities and stocks or bequests. Gifts may be designated toward an existing

fund or donors may create a new fund that meets their giving criteria. The MCC Foundation also offers prospective donors the option of creating endowed funds of $5,000 or more to provide annual and lasting gifts toward the project of their choice.

For more information on the MCC Foundation, visit www.mccneb.edu/foundation or call (402) 457-2346.

MCC Locations

Elkhorn Valley Campus

204th and W. Dodge Rd.

The Elkhorn Valley Campus opened in 1980 and was renovated and updated in 2007. In Fall 2008, the Gallery of Art and Design opened. Academic degree programs available at the Elkhorn Valley Campus include Accounting, Art, Civil Engineering Technology, Health Information Management Systems, Academic Transfer, Theatre Technology and Video/Audio Communication Arts. In addition, support courses for other MCC degree programs are also available.

Fort Omaha Campus

30th and Fort Sts.

The historic Fort Omaha Campus houses an 82,000 square foot instructional facility with modern classrooms, labs and student-dedicated space. The Institute for Culinary Arts opened in Winter 2009.

Among the programs available at the Fort Omaha Campus are Computer Technology Transfer, Culinary Arts and Hospitality Management, Early Childhood Educator, Graphic Communications Art and Design and Horticulture. In addition, support courses for other MCC degree programs are also available.

South Omaha Campus

27th and Q Sts.

The South Omaha Campus opened in 1978 and in 2007, doors opened to the new Connector that provides access to a Metropolitan Area Transit hub and a joint MCC and Omaha Public Library location. The building connects to the Eugene T. Mahoney Building and Industrial Training Center, also located at the South Omaha Campus. Academic degrees available at the South Omaha Campus include Business Management, Construction Technology, Criminal Justice, Electronics Technology, Health and Public Services, Respiratory Care Technology and Welding. In addition, support courses for other MCC degree programs are also available.

Applied Technology Center

104th and State Sts.

Opened Summer 2007, the Applied Technology Center is home to a number of MCC's trades programs. The space was acquired to accommodate growth in both MCC enrollment and in the trades programs themselves. The location allows ample space for the special classroom and lab facility needs of trades programs such as Diesel Truck Driving, Utility Line Technician and Diesel Service Technology.

Fremont Area Center

9th and Broad Sts.

The Fremont Area Center opened in 1986 to serve Dodge and Washington counties, and it moved to its permanent home in the renovated former junior high in 2007. This location offers many courses that support academic degree programs along with ABE/GED/ESL classes. Advising, financial aid, counseling and registration services are available.

Offutt Air Force Base

Bellevue

MCC offers a wide variety of classes at Offutt Air Force Base through the Education Center. Located in Bellevue off U.S. Highway 75, the Offutt AFB Center provides convenient access to military personnel and their dependents. Area citizens may contact the center to determine availability of on base classes.

Bellevue Center

2820 Arboretum Dr.

Services are conveniently located at the Bellevue Public Schools Lifelong Learning complex. Classes are offered at Bellevue West High School, located at 1501 Thurston Ave. A variety of academic courses are available to support degree programs.

Sarpy Center

91st and Giles Rd.

Opened in 1999, the center is a collaborative effort between MCC and the City of La Vista. The Sarpy Center has 15 classrooms. A commons area links the center with the La Vista Public Library.

Community Locations

Metropolitan Community College cooperates with many public and private schools and other locations throughout the four county service area to provide a wide range of community and workforce education. Day and evening courses and programs are available for job/career enrichment, continuing education, general interest and many other goals.

Individual Campus Tours
Tours and appointments are available for prospective students. To schedule a tour, call the campus you wish to visit or (402) 457-2400 or schedule online at www.mccneb.edu/visitation.

Group Visits, Workshops and Presentations
Visits are available for large groups of up to 50 people. Group visits may include campus tours and opportunities to meet academic advisors and program faculty. Schedule group tours at least two weeks in advance by calling (402) 457-2422.

Student Services
Campus and Student Affairs

ADMISSION REQUIREMENTS
General Admission Requirements for New Students
Any person who has a high school diploma or equivalent, is at least 18 years of age or can benefit from a program of study may be admitted to the College.

Admission to the College, however, does not mean admission to all courses, programs or guarantee financial aid. Students may be required to take preparatory work prior to entering MCC classes. The College reserves the right to evaluate requests for admission and to refuse admission to any applicant when considered to be in the best interest of the College.

Although the American College Testing (ACT) placement test is not required, if a student has taken the ACT within the last two years, he/she may forward scores to Admissions.

Reservation of Rights to Admission
The College reserves the rights to limit the number of students admitted to the College and/or to specific programs and to make decisions regarding admissions to the College and to specific programs in accordance with any lawful criteria and/or procedures determined by the College or its officials whether such criteria and/or procedures are published or unpublished.

Admission to Specific Programs
In addition to the general admission procedures, some programs have specific requirements and a formal admissions process. Among the items generally considered in determining the eligibility of a student for admission to a program are educational and occupational experiences and other reasonable standards to ensure that the student possesses the potential to complete the program successfully.

The College may require a student to provide a medical statement from a physician or background check for admission to a specific program or when it is otherwise in the best interest of the student and/or the College.

A student who does not meet the requirements for a specific program may become eligible after completing appropriate work in developmental studies or prerequisite credit classes.

Admission of International Students
The following conditions apply to students holding an F-1 student visa seeking admission to the College:

- Immigration laws require the F-1 student to attend college as a full-time credit-seeking student.
- A student on a temporary visa is considered to be non-resident for purposes of tuition payments.
- The applicant is required to take the Test of English as a Foreign Language (TOEFL). The applicant is responsible for making early arrangements for the test via online registration at www.ets.org or writing to:
  TOEFL
  Educational Testing Service
  Princeton, N.J. 08540, USA
  Test results must be sent to the College via TOEFL institutional code number 9621.
- After admission, students may need to complete placement testing in order to determine appropriate placement in classes.
- The applicant is required to complete an admission application.
- The applicant must provide an official high school transcript of grades to include a date of graduation. Any student transferring from another college or university in the United States is required to provide an official transcript and transfer form.
- The applicant is required to provide evidence of financial independence while attending the College.
- The applicant is required to be insured under a health and accident insurance policy.
- Once accepted, students must register for 12 credit hours or more each quarter to stay in status.

Admission for High School Students

In order to enroll at the College, a high school student must:

- have a minimum of a C average in high school subjects;
- follow the enrollment policies and procedures of the College (i.e., assessment testing and prerequisite course work); and
- discuss enrollment with a parent/legal guardian and a high school official.

A high school student taking college courses for the first time should go to www.mccneb.edu, click on Secondary Partnerships and follow the CollegeNOW! link to begin registration.

Transfer of Credits from Another College

A student who wishes to transfer credits from another college and plans to pursue a program of study must provide official transcripts. To declare a program of study, contact Student Services. To mail official transcripts for evaluation, contact your school and have the transcript sent to:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

Students enrolled in 12 or more credit hours during a quarter are considered full-time students. Students enrolled in less than 12 credit hours during a quarter are considered part-time students.

ENROLLMENT PROCEDURES

Registration for New Students

It is easy to get started!

- Visit a convenient MCC location or www.mccneb.edu to get more information about MCC
- Meet with an academic advisor
- Complete a Basic Skills Assessment (if needed)
- Apply for financial aid (if desired)
- Pay tuition for classes
- Purchase textbooks

A student wishing to enroll in more than 25 credit hours needs approval from the Campus Dean, Executive Director or Student Services Director.

The student is responsible for making any changes in his/her class schedule. These changes must follow College procedures and deadlines at all times.

Registration for Students

Online Registration via WebAdvisor:

Visit www.mccneb.edu to access WebAdvisor

Enter your User ID and password*
*You must have a User ID and password to access online registration. To request an ID and password, click on the registration link at www.mccneb.edu.

WebAdvisor – WebAdvisor services include:

- Registration for credit and noncredit classes
- Grades and class schedules
- Requests for official transcripts
- Drop classes
- Address changes
- Account summaries by term
- Payment options
- Degree audits
- Financial aid information

Phone Registration:

Call (402) 457-5231 or toll-free (800) 228-9553

Have your student ID ready.

Have your course numbers, section numbers or course synonym numbers available.

Schedule changes are the responsibility of the student. Academic advisors are available to assist students with schedule changes.

Change of Registration

The College provides specific timelines each quarter to change schedules. The following guidelines apply to course registration changes:

- Courses may be added after the first class session with instructor approval. Forms are available in Student Services.
- Changes and refunds are effective on the date the request is received. The eligibility and amount for a refund is automatically calculated by the date of the withdrawal.

- A student may withdraw from a course any time prior to the last day to drop or audit a class section.
- Withdrawing from a course within the designated drop period results in a W that is recorded on the student's permanent record.
- Failure to withdraw from a class may result in the assignment of an F grade to the student's permanent record.
- Faculty may withdraw (IW) a student from a course for frequent absences that result in a lack of progress. Notification is sent to the student via the College's student email system. The student may appeal to the instructor if this action is considered an error (must be done before the last drop date of the class).

Course Cancellations

The College may find it necessary to cancel a course due to insufficient enrollment or other extenuating circumstances. Whenever possible, the course will be cancelled prior to the first class meeting and the student notified. The student enrolled in a cancelled course will receive a full refund.

TRANSCRIPTS

Transcript Retention

MCC retains the student's official academic records (transcript). Student financial aid records are retained for three years plus the current year.

Transcript Changes

The student who believes there is an inaccuracy in his/her official academic record (transcript) *must notify Records immediately.* The transcript is the final, accurate record of academic accomplishment.

Transcript Requests

A transcript request form is available at Student Services or online at www.mccneb.edu/academics/transcript_request_form.asp. Transcript request options include:

- Requesting a transcript via the student's WebAdvisor account
- Faxing a completed request form to (402) 457-2244
- Submitting a completed request form to Student Services

For additional information, contact Records at (402) 457-2353.

In compliance with the U.S. Department of Education's policy aimed at reducing the student loan default rate, the current or former student who is in default on his/her student loan is not entitled to official transcripts of grades or course completions.

TUITION

Classification

Students are classified by residence for the purposes of assessing tuition. Students may contact Enrollment Services regarding residency classification.

Resident

A student qualifies to register for resident tuition rates at MCC if he or she is not an international student with an F-1 student visa and is meeting one of the following criteria:

- Has a Nebraska mailing address (P.O. Box not acceptable)
- Is a minor whose parents or legal guardian have a Nebraska mailing address (P.O. Box not acceptable)
- Is married to a spouse who has a Nebraska mailing address (P.O. Box not acceptable)
- Has attended or graduated from a Nebraska secondary school during the school year immediately prior to registration at MCC

Non-Resident

An individual who does not qualify for the resident tuition rates is considered a non-resident and his/her tuition assessed according to the non-resident tuition schedule.

Costs for Credit Classes*

Residents

Standard tuition ..... $43/credit hr.
Persons 62 years of age or older ..... $21.50/credit hr.
CollegeNOW! high school students... $21.50/credit hr.
Afternoon reduced rate** ..... $30.10/credit hr.

Non-Residents

Standard tuition $64.50/credit hr.
Persons 62 years of age or older $32.20/credit hr.
Afternoon reduced rate** $45.10/credit hr.

Fees

Facilities fee	$5/credit hr.
Late registration fee (beginning 2nd week of term)	$5/class
Graduation application fee	$25/application
International Student Health Insurance – premium varies by age	

**The College tuition rate is subject to change without prior notice by and at the discretion of the Metropolitan Community College Board of Governors.*

Books and Materials

Students are expected to obtain books, supplies and consumable materials needed for classes. In addition, some programs require the purchase of special items such as tools, camera, etc. A complete listing of special costs is available at Student Services.

**Afternoon Reduced Rate

Students enrolling in any on-campus credit course that starts between the hours of 3 p.m. and 4 p.m., Monday through Thursday, will receive the afternoon reduced rate. This rate only applies to courses offered during the Fall, Winter and Spring quarters.

High School CollegeNOW! Student Tuition

Nebraska resident high school students enrolling in courses at MCC, including, but not limited to, MCC Career Academies, dual credit, CollegeNOW! and Bridge to Success programs, receive the CollegeNOW! high school rate listed above.

62 Years of Age or Older

Students 62 years of age or older are eligible for tuition rates listed above for credit courses and reduced registration fees for noncredit courses unless otherwise stated. All other applicable costs for Community Education courses are assessed at the full rate.

Student Liability Insurance Program

Students enrolling in certain health occupations and human services programs requiring clinical practice, laboratory or experiences that place the student in the position of providing patient care must be covered by a student liability insurance program. The specific policy shall be determined by the College with the cost paid by the student as part of the fee assessment upon initial enrollment in the clinical, laboratory or patient care class.

International Student Health Insurance

MCC requires that all international students purchase a health insurance policy through the College. The insurance premiums are collected by MCC for submission to the insurance company.

Delinquent Accounts

Students must meet all financial obligations each quarter by paying all money due to MCC including tuition, fees, fines, charges for unreturned library books and any other financial obligations by the payment deadline. Students with delinquent accounts are not permitted to enroll in succeeding terms, are not entitled to transcripts, are not permitted to graduate and, if currently enrolled, may be disenrolled.

TUITION PAYMENT

After you register, you will be billed for your tuition a few weeks before the quarter starts. Tuition can be paid by credit card, check, cash or deferred payment.

Credit Card

DISCOVER, MasterCard and VISA credit card payment is accepted:

- In person at Student Services
- Via phone at (402) 457-5231, (402) 457-2405 or toll-free (800) 228-9553
- Online at www.mccneb.edu (Student username and PIN are required for online payment)

Check

Make checks payable to Metropolitan Community College and include your student ID number in the memo. Send to:

Metropolitan Community College
Student Accounts
P.O. Box 3777
Omaha, NE 68103-0777

Note: Your cancelled check is proof of payment.

Cash

Cash is accepted in person at Student Services or the Business Office, Fort Omaha Campus, Bldg. 30. Do not send cash through the mail. Your cash receipt is proof of payment.

Deferred Payment

MCC offers deferred payments through a third-party agency that allows students to make payments on their tuition for the quarter. For more information, visit www.mccneb.edu/currentstudents/facts.asp.

REFUND POLICIES

Credit Courses

An official schedule change that reduces or terminates a student's credit load may entitle the student to a refund. The eligibility and amount of a refund is automatically calculated by the date of the withdrawal. A student may see what refund percentage they will receive through midnight of the same day by logging into WebAdvisor and clicking on the Tuition Refund Calculator.

Students who feel individual circumstances warrant exceptions from this policy must submit a letter of appeal and documentation before the end of the term in which the refund is to occur to:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

Note: Schedule changes may have implications for students on financial aid. Check with Financial Aid prior to any schedule changes.

Students are responsible for dropping the course(s) if unable to attend. Non-attendance or non-payment does not relieve the student from the obligation to pay.

Change of Address

All changes of address and telephone numbers should be reported to Registration. Billing, refunds and enrollment information from MCC are mailed to the latest address on file. Any information in a student's personal College record is considered confidential and is issued only upon written authorization by a student.

TRANSFER AGREEMENTS

MCC has worked closely with many four-year institutions to develop program-to-program agreements that assure smooth transfer of courses and degrees. These agreements are called articulation agreements, and there are four types:

Associate-to-Bachelor's (A-to-B) Agreements

Associate-to-Bachelor's Agreements provide for completion of an associate degree in the process of obtaining a bachelor's degree. Most, if not all, of the credits in the associate degree transfer to the four-year institution, often with the transfer student being awarded junior class standing. In order to take advantage of these agreements, students must complete the entire A-to-B curriculum and graduate from MCC.

Department/College-Based General Education Transfer Guides

General Education Transfer Guides list all of MCC's courses that satisfy four-year school's general education requirements. Some institutions have an institution-wide general education requirement. Other institutions' general education requirements vary depending upon the student's department or major. The Department/College-Based General Education Transfer Guides list the specific general education courses required for a student's intended major.

Completing all of the general education courses that transfer to a specific department or college does not mean the student will graduate from MCC with an associate degree. Students can complete nearly one-half of a bachelor's degree at MCC and successfully transfer those classes towards a four-year degree.

Program-Based Transfer Guides

Program-Based Transfer Guides list the courses that will satisfy admission requirements to health programs or are guides that contain both general education and major course requirements.

Course-by-Course Transfer Guides

Course-by-Course Transfer Guides list MCC courses that transfer to four-year institutions by identifying equivalent courses at the four-year institution. The guides are very useful if students desire to take a specific course at MCC for transfer to a four-year institution. To use the Course-by-Course Transfer Guides effectively, students need to know their specific four-year degree course requirements in order to determine if an equivalent transfer course is available at MCC.

Visit www.mccneb.edu/articulation for specific transfer agreement information.

CREDIT AWARDED AS AN ALTERNATIVE TO ATTENDING FORMAL CLASSES

MCC may grant academic credit for the following:

- AP Program – high school advanced placement credit opportunity
- Credit for knowledge acquired through work experience
- Credit for military service
- Successful demonstration of MCC course proficiency exams
- International Baccalaureate (IB) – international high school credit opportunity
- Successful completion of national standardized exams (CLEP and DANTES)

Credit granted does not apply toward fulfillment of MCC's residency requirement for graduation.

Students with questions regarding awarding credit via an alternative to attending classes should contact Records at (402) 457-2353. Consideration for any alternative credit award should be mailed to:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

AP - Advanced Placement Program® High School Credit Opportunity

The College Board's Advanced Placement (AP) Program provides high school students with the opportunity to take college-level courses and exams and earn college credit or advanced placement. MCC may award college credit in fulfillment of program requirements. For consideration of college credit, a student will need to have an official exam score report mailed to Records.

For more information about the AP Program, visit www.collegeboard.com/apstudents.

Advanced Placement through Articulation

This partnership effort between secondary and postsecondary institutions is designed to prepare high school graduates to continue their postsecondary education in technically oriented careers and to enhance school-to-career transition. When course curriculum at the high school level matches college course curriculum, an articulation agreement is signed that allows for advanced placement into higher-level college courses. A student may be able to receive advanced placement through articulated courses by meeting the following requirements:

- Enrolling at MCC within two years of high school graduation
- Obtaining a grade of B or better in the course(s) to be considered for advanced placement
- Submitting an application with an official high school transcript to:
  Metropolitan Community College
  Secondary Partnerships
  P.O. Box 3777
  Omaha, NE 68103-0777

For more information, visit www.mccneb.edu/secondary.

Credit for Learning Acquired through Work Experience

Credit may be granted for learning acquired through work experience that parallels a student's program at the College. Credit is not granted for courses in which a course proficiency test is available. The student should contact Student Services for information. Credit does not apply toward fulfillment of MCC's residency requirement for graduation. A fee will be charged.

Credit for Military Service

An individual who has completed basic training may be eligible to receive college credit. Credit granted for military service is not applicable toward fulfillment of MCC's residency requirement for graduation. Official military transcripts may be mailed to Records:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

Students may contact Records at (402) 457-2353 for information regarding procedures.

The College Level Examination Program (CLEP)

MCC may award college credit in fulfillment of program requirements. Students are encouraged to take subject exams. For consideration of college credit, a student will need to have an official exam score report mailed to Records:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

Course Proficiency

A student wishing to demonstrate course proficiency may challenge selected credit courses by taking a proficiency examination. A student must be in good standing, be currently enrolled at MCC, not enrolled in the course being challenged and cannot have completed the course previously with a grade. A fee for each proficiency examination is payable at any MCC location prior to testing. The student should contact Student Services for information and application procedures. Credit granted will not apply toward fulfillment of MCC's residency requirement for graduation.

Defense Activity for Non-Traditional Education Support (DANTES)

MCC may award specific course credit for subject examinations in fulfillment of program requirements. For consideration of college credit, a student will need to have an official exam score report mailed to Records:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

International Baccalaureate (IB Program) High School Credit Opportunity

The International Baccalaureate (IB) program is a comprehensive and rigorous curriculum leading to exams for students between the age of 16 and 19. MCC may award college credit in fulfillment of program requirements. Credit may be awarded by reports sent from the national IB office to Records after a student has transferred to MCC.

For consideration of college credit, a student will need to have an official exam score report mailed to Records:

Metropolitan Community College
Records
P.O. Box 3777
Omaha, NE 68103-0777

For more information about the IB Program, visit www.ibo.org.

Financial Aid

Financial aid is money available to assist the student with the costs of attending college. This assistance comes from the federal and state government, the institution and private sources. Financial aid includes grants, federal work-study, student loans and scholarships. The federal and state grants are only available to the student who has not earned a bachelor's or a professional degree.

Philosophy

The fundamental philosophy guiding MCC financial aid is that no student should be denied an education due to the lack of financial resources. Financial aid eligibility is determined and awards (grants, loans, work-study and scholarships) made without regard to race, color, religion, sex, national origin, age or disability. MCC is committed to assisting eligible students in obtaining financial assistance to meet primary financial need (tuition, books, fees and transportation). Secondary costs of education (room, board and personal expenses) may be considered in financial aid packages based on availability of funds.

Federal Pell Grant

This program provides a direct grant to the student to help pay college costs. Amounts awarded to all federally eligible students depend on financial need (as determined by the Free Application for Federal Student Aid (FAFSA)) and student's enrollment status.

Federal Academic Competitiveness Grant (ACG)

This program is for students who are enrolled full-time in their first and second academic years and have graduated from a rigorous high school program of study. Students must be U.S. citizens or eligible non-citizens, eligible for a Federal Pell Grant during the same period, enrolled in a degree program, attending at least half-time and have a GPA of at least 3.0.

Campus-Based Programs

The programs listed below are campus-based financial aid programs funded by the federal and state governments and by the institution. Since the funding available for these programs is limited, eligible students will be awarded on a first-come, first-served basis. Amounts of these awards will be sent to the student in writing once the student has completed the financial aid process and has been awarded all financial aid.

Federal Supplemental Education Opportunity Grant (FSEOG)

Students with exceptional financial need are eligible for this grant. Priority is given to the student who is eligible for a Federal Pell Grant and meets the priority deadline for the Summer quarter each year. Students must be enrolled full-time to receive an FSEOG.

Nebraska State Grant (NSG)

Nebraska residents with exceptional financial need are eligible for this grant. The student must also be eligible for a Federal Pell Grant. The student who is

not a Nebraska resident and would like information about state grant programs in his/her state may call the Director of Financial Aid at (402) 457-2330. The student must be enrolled in a minimum of six credit hours each quarter to receive an NSG.

Board of Governors Tuition Grant (BGTG)

A recipient must have financial need and be a legal resident of Nebraska. This grant can only be used to pay tuition charges. The recipient is responsible for paying fees and any tuition not covered by the grant. A student who has already attained a bachelor's degree is not eligible to be awarded these funds.

Federal Work-Study

The Federal Work-Study Program provides part-time employment for the eligible student. Work-study positions are located both on and off campus. A number of reading and math tutoring positions and off-campus, nonprofit community service jobs are available. Additional information about terms and conditions of employment are available from Financial Aid. Since the funding available for these programs is limited, eligible students will need to request information on eligibility and jobs available from Financial Aid. A student who has already attained a bachelor's degree is not eligible to apply for these funds.

Federal Direct Loan Program or Stafford Loans

This federal program provides low interest loans to students. Students must file the Free Application for Federal Student Aid (FAFSA) to determine their eligibility for this program. A student who has already attained a bachelor's or professional degree is eligible to apply for this loan.

There is a limit of $3,500 per year for the first 44 earned credit hours. A second loan for earned credit hours of 45 and beyond is limited to $4,500 per year. The student who is considered independent by Title IV definition may request additional unsubsidized loan funds beyond these limits.

The student must be registered for a minimum of six credits per quarter for the entire loan period to be eligible for either type of loan. Repayment of the loan begins at the end of a six-month grace period after the student either graduates, stops attending or is registered for fewer than six credits per quarter.

Federal Direct PLUS Loan

This loan program is designed to assist the parent(s) who wants to borrow money to help pay for the educational expenses for each child who is a dependent undergraduate student.

The student must be enrolled for at least six credit hours.

Information about the terms of both of these loans and sample repayment schedules are available from Financial Aid.

Financial assistance information is also available from any Financial Aid staff member and the Financial Aid web site, www.mccneb.edu/fa.

APPLICATION PROCEDURES

To apply for financial aid, a student must submit the Free Application for Federal Student Aid (FAFSA) and include the MCC school code, 004432. Students are encouraged to complete this application as early as possible after Jan. 1 each year. Students who meet the priority deadline for the earliest quarter they wish to enroll will be guaranteed that funding for which they are eligible will be in place prior to the quarter start. The priority processing deadlines for each quarter are as follows:

Summer quarter – April 1
Fall quarter – July 1
Winter quarter – Oct. 1
Spring quarter – Jan. 1

Free Application for Federal Student Aid (FAFSA)

This application is used to apply for all types of federal, state and institutional aid awarded by the College. Students are encouraged to complete the FAFSA on the web (www.fafsa.ed.gov). Students who are unable to complete a FAFSA on the web may complete a paper FAFSA and submit it to Financial Aid for processing. Once the FAFSA is processed by the U.S. Department of Education, a Federal Student Aid Report (SAR) is sent to the student. An electronic Institutional Student Information Report (ISIR), which duplicates the information on the student's SAR, is sent to the Financial Aid. The ISIR must be processed and have a valid Expected Family Contribution (EFC) before a student's eligibility for any financial aid funds can be determined and an award issued.

Verification Process

Thirty percent of all federal aid applicants are selected by the Department of Education for verification. Verification requires that documentation be provided to verify the information submitted on the FAFSA. Students are required to submit a verification worksheet, tax information and any other necessary

documents in order to complete the required process. Any documentation requested by MCC must be provided within 14 days of receipt of the request, or the student file may be inactivated. No financial aid disbursements can be made until the verification process is complete. A student may call the office to re-activate the file at any time during the current academic year once all documents are received.

GENERAL ELIGIBILITY REQUIREMENTS

A student must meet the following general requirements to be eligible for federal, state and institutional financial aid programs.

- Be a U.S. citizen, U.S. national or permanent resident or eligible non-citizen
- Be enrolled as a regular student pursuing an associate degree, certificate or specialist diploma in an eligible program
- Have a high school diploma or a General Education Development (GED) certificate or pass the ASSET/COMPASS assessment test, used by MCC and approved by the Department of Education, with specified test scores or complete and pay for a minimum of six credit hours of college-level courses
- Have a valid Social Security Number
- Not be in default on a federal student loan or owe a repayment on a federal grant
- Be registered with Selective Service (unless a female)
- Meet the College and Financial Aid Standards of Academic Progress requirements

AWARDING PROCEDURES

When all appropriate information, forms or documents have been received by Financial Aid, the student's financial aid file is considered complete and ready for verifying and awarding to the extent funds are available.
Financial Aid uses the following criteria to award funds to financial aid applicants:

- Must have financial need;
- Must have an EFC (Expected Family Contribution) that Financial Aid has determined to be valid; and
- Must have a complete file for the new award year. Students who have completed financial aid files by the summer priority deadline of April 1 will receive consideration for the Federal Supplemental Educational Opportunity Grant, Nebraska State Grant and Federal Work-Study. Failure to complete the financial aid process by the summer priority deadline may result in some program funds not being available to applicants. The Federal Pell Grant and the Federal Academic Competitiveness Grant can be applied for throughout the award year; however, Financial Aid must electronically receive the student's SAR information no later than the last day of Spring quarter of the current award year to determine his/her Federal Grants eligibility for the award year.

GRANT PAYMENT AUTHORIZATION AND DISBURSEMENT PROCEDURES

Authorization Procedures

Financial Aid will adjust students' quarterly award amounts based on the enrollment level as of the financial aid census date. Students should contact Financial Aid for more information about the census dates for the current award year.

Payment cannot be authorized for the following situations:

- Audited courses
- Repeat of courses already completed with a P, C or better

Award amounts are not adjusted after the appropriate census date for any increase or decrease in a student's enrollment level. There are two exceptions to this policy:

1. If a student completely withdraws from all classes, Title IV Return of Federal Funds regulations may require that a portion of a student's aid be returned to the Department of Education by the institution and by the student. (See Return of Federal Funds for more information.)
2. If a student drops a class that has not started and receives a 100 percent refund, aid is reduced to reflect the new enrollment status.

The student should contact Financial Aid for further information, especially when adding or dropping classes.

Overlapping Enrollment

The financial aid rules for overlapping enrollment periods are very complex. If you have an overlapping enrollment period (even one day), it can severely affect your financial aid eligibility. Contact Financial Aid with questions about overlapping enrollment periods.

Disbursement Procedures

After all charges (i.e., tuition, books and supplies) have been deducted from the total amount of the quarterly award, any remaining credit balance is issued in the form of a check and mailed directly to the student, typically within two weeks of the financial aid census date. Single quarter loans must be disbursed in a minimum of two disbursements.

Return of Federal Funds

Federal Title IV regulations require a certain percentage of Title IV funds be returned to the Department of Education or to a student loan when a student completely withdraws from all classes. Federal funds that may have to be returned are Federal Stafford and/or PLUS Loans, Federal Pell Grant, Federal ACG, Federal SEOG and NSG (includes federal program funds). The Board of Governors Tuition Grant and Federal Work-Study are not affected by this requirement.

A student who receives all F grades or a combination of F, FX, W and WX grades is considered to have unofficially withdrawn from classes. A student receiving federal financial aid funds who drops out without notifying the institution may be subject to repayment of federal funds. The student may owe the College for charges no longer paid by financial aid.

For more information and examples of the Return of Federal Funds calculations, contact Financial Aid or Student Accounts.

STANDARDS OF SATISFACTORY PROGRESS REQUIREMENTS AND PROCEDURES

Federal financial aid regulations require MCC to establish a Satisfactory Academic Progress policy for students receiving financial aid. MCC must notify students of that policy and monitor the progress of all students receiving financial aid to ensure their continued compliance with the policy.

It is the responsibility of all students receiving financial aid to familiarize themselves with the policy and to ensure that the standards are met. Failure to meet the Financial Aid Satisfactory Academic Progress Standards may place a student's financial aid in jeopardy.

There are academic progress rules students must follow to remain eligible for financial aid. It is important to know and understand them. There are four rules to financial aid standards of progress, outlined below. All students (new and returning) must meet all four rules to be eligible for financial aid each quarter. Questions about these rules can be directed to Financial Aid.

Rule 1: Grade Point Average Requirements for All Students

All students who receive federal, state and/or institutional financial aid must have a minimum cumulative Grade Point Average (GPA) that is related to the total number of the student's attempted credit hours. At the end of each quarter for which a student is enrolled and receiving financial aid, the cumulative total of attempted credit hours and GPA will be calculated.

GPA REQUIREMENTS FOR FINANCIAL AID				
Certificate Programs				
Credit Hours Attempted	0-23.5	24-29.5	30-39.5	40+
Minimum cumulative GPA required	1.0	1.5	1.80	2.0
Associate Degree Programs				
Credit Hours Attempted	0-23.5	24-29.5	30-79.5	80+
Minimum cumulative GPA required	1.0	1.5	1.80	2.0

Students who are awarded financial aid for the current award year must have the required GPA for their attempted hours prior to having their aid posted to their student account each quarter. The cumulative GPA is checked at the end of each quarter in which the student is enrolled and receiving financial aid. If a student does not meet all Financial Aid Standards of Academic Progress including the GPA requirements, he/she will be suspended from financial aid eligibility at the end of the quarter in which he/she fails to meet the requirement.

Rule 2: Sixty-seven percent course completion requirement

All students who have financial aid must receive passing grades (A, B, C, D, P or R) in at least

67 percent of the credit hours in which they were enrolled. If they receive an F, FX, W, WX, I or V grade for any credit hours, these will be considered unsuccessful grades and reduce the completion rate.

Rule 3: Maximum Credit Limit to Receive Financial Aid

Institutions of higher education (schools beyond high school), by Department of Education regulation, must set a maximum credit limit in which those students who receive financial aid must complete their program of study. That maximum number of credit hours is 150 percent of the published number of credit hours for a program.

Example: If a program of study requires 98 credit hours to graduate, the maximum credit limit a student could take and receive financial aid would be 147 (98 x 150 percent). All credit hours attempted will be included in this calculation.

At the end of each quarter, the total number of attempted credit hours will be counted to see if a student has reached the maximum number of credit hours for the program of study. This includes:

- Credit hours attempted in quarters a student did not receive financial aid.
- Credit hours attempted prior to a change of program of study or a certificate/degree.
- Credit hours transferred from another institution into a program of study at MCC.

Rule 4: Maximum Credit Limit to Receive Financial Aid for ESL Classes

Federal and state financial aid will be available to students taking ESL (English-as-a-Second Language) classes, but students will be limited to 100 attempted ESL credit hours. Attempted credit hours mean all ESL classes for which you have registered and have received either a grade (P, R, WX, F) or a W (withdraw). After you have attempted 100 credit hours of ESL classes, you will not be eligible for additional aid. You may regain eligibility for federal and state aid when you are ready to take developmental classes or 1000-level credit classes. The total number of attempted credit hours in ESL classes will be counted by Financial Aid at the end of each quarter for which a student is enrolled and receiving financial aid.

Quarterly Notification of Standards of Academic Progress

At the end of each quarter, Financial Aid and Veteran Services will review students' academic record to see if they are meeting all four Financial Aid Standards of Academic Progress rules. Students must meet all requirements to be eligible for financial aid. The first time a student fails to meet one or more of the rules, he/she will be granted one quarter of automatic probation. Under probation, a student is eligible to receive financial aid but may have conditions placed on his/her eligibility. If a student fails to meet the Financial Aid Standards of Academic Progress rules after the second quarter, he/she will be placed on suspension from financial aid. Students on suspension are not eligible to receive any type of financial aid.

Financial Aid reviews the records of students who have attended MCC in the past but have never applied for or received financial aid at MCC. These students must meet both the College's Standards of Progress and Financial Aid Standards of Academic Progress GPA requirements before they can be approved for financial aid. Any student who is not meeting these requirements will be denied financial aid for the quarter(s) in which he/she registers.

Each student who is suspended from financial aid will receive a letter from Financial Aid stating why he/she is no longer eligible for financial aid. When students are suspended from financial aid (which includes student loans), they are responsible for paying their own educational costs including tuition, fees, books and supplies.

APPEAL PROCEDURES

Any student who has been suspended from financial aid may appeal the suspension. The steps to follow are:

1. Print an appeal form from the web site www.mccneb.edu/fa/documents.
2. Complete and sign the appeal form.
3. Attach any documentation that verifies your appeal statement to the appeal form.
4. For maximum timeframe appeals, visit with Student Retention Services, Special Support Services or with an academic counselor/advisor to obtain an educational plan that lists the courses necessary to complete your degree or certificate.
5. Turn forms and attachments into Financial Aid or email them to financialaid@mccneb.edu.

Reinstatement of Financial Aid

A Standards of Progress Appeals committee will review the appeal form and documentation and then make a decision whether or not to reinstate financial aid. If the appeal is approved, the student will be reinstated for the quarter in which he/she is currently registered or the next available quarter if not currently registered for classes. Approved appeals result in a probation status. A student may be granted extended probation for each quarter after a successful appeal in which he/she has a 100 percent completion rate and an increased GPA even if he/she has not yet met all of the established rules. Once all rules are met, the status will automatically update to good standing.

If the appeal is denied or the student decides not to appeal the suspension, the student is responsible for payment of all educational costs, including tuition, fees, books and supplies for any quarters for which he/she is enrolled after suspension from financial aid.

SELECTED GRANT/SCHOLARSHIP PROGRAMS

Many scholarships are offered at MCC at various times during the year. Several are listed below.

- **Board of Governors Scholarship for GED Graduates** – A two-year full-tuition scholarship is awarded each year to graduating General Education Development (GED) students from MCC and other adult education programs in MCC's four-county service area. The recipient is responsible for paying fees and any tuition not covered by the scholarship.
- **Presidential Scholarship for Graduating Seniors** – Public and private high schools in the four-county area can present a two-year full-tuition scholarship to two graduating seniors. Applications are available from high school guidance counselors. The recipient is responsible for paying fees and any tuition not covered by the scholarship.
- **Board of Governors Scholarship for Graduating Seniors** – Public and private high schools in the four-county area can present a two-year half-tuition scholarship to two graduating seniors. Applications are available from high school guidance counselors. The recipient is responsible for paying fees and any tuition not covered by the scholarship.

Many other scholarships are offered to MCC students based on financial need and require an official and valid electronic Federal Student Aid Report (SAR) to be on file in Financial Aid. The student should complete the Free Application for Federal Student Aid (FAFSA) each year after Jan. 1 if he/she plans to apply for any scholarships. The student should contact Financial Aid or visit the MCC web site on a regular basis to view the current scholarships.

Students are encouraged to inquire about and apply for scholarships offered by the Metropolitan Community College Foundation, as well as several other outside foundations. Visit www.mccneb.edu/fa/scholarships.asp for additional information on the application process and deadlines.

VETERAN SERVICES

Veteran Services provides advisory services relating to educational benefits and periods of earned entitlement to VA-eligible students planning to enroll or already enrolled at the College. Forms and applications needed by the veteran eligible for educational benefits are available from Veteran Services.

Veterans Educational Benefits

Due to the number of veteran educational programs, the student should contact Veteran Services for detailed information. In general, the following information applies:

- In order to receive benefits, the entitled person must be in a specific program of study and be eligible to receive benefits only for the courses required in that program. The student is required to attend all classes for which he/she is registered and maintain satisfactory academic progress. The eligible veteran will normally receive a monthly check that may vary in amount since it is determined by class load.
- If possible, a new veteran student should apply for benefits 30-60 days prior to the start of the quarter he/she plans to attend; however, application can be made at any time during the quarter. *The student who has attended other institutions must request that official transcripts of credit earned at the institution(s) be sent directly to Records for evaluation of prior credit into his/her current program of study.* Certain veterans and veterans' dependents may be eligible for additional benefits.

Veteran Work-Study Program

Some veteran students qualify for the VA Work-Study Program that provides funds for part-time positions at

various locations on campus serving veterans. Any questions should be directed to Veteran Services.

Some restrictions apply to all VA educational programs. Contact Veteran Services at (402) 738-4616 for more information.

Campus and Student Services

STUDENT SUPPORT SERVICES

Academic Advisement

Academic advisors are generally the first point of contact for a new student. They also assist students with identifying and developing an educational plan to support their academic, career and personal life goals. They help connect students to valuable resources and information about MCC's programs, services, policies and procedures and work collaboratively with students, program faculty members and other College officials.

Academic Counseling

Academic counselors assist students who need to strengthen their basic skills in reading, writing and/or math and students who are English language learners. Academic counselors are available at the Elkhorn Valley, Fort Omaha and South Omaha campuses and the Sarpy Center. Academic counselors and faculty teaching basic skills courses establish partnerships to help students succeed. Academic counselors provide intervention or professional community referrals to students experiencing personal problems and/or crisis situations. All MCC students are encouraged to contact an academic counselor for assistance with various needs including academic advising, career counseling, study skills and general resource information.

Assessment Services

A basic skills assessment program is available at each MCC location. Students participate in basic skills assessments in reading, English, science and mathematics. Academic Resource Centers (ARCs), Math Centers and Writing Centers provide assistance and preparation for placement tests. Assessment results are provided to new students working with academic advisors during the first term of classes.

Career Centers

A wide range of career, employment and support services are available at the Elkhorn Valley, Fort Omaha and South Omaha campuses and the Fremont Area Center through the Career Centers. The Centers provide assistance to students in making career decisions, obtaining employment and upgrading skills to retain employment through friendly, individually-tailored services.

The Career Centers provide no-cost services to MCC students and to any person in the community seeking career services. Services offered include career planning, career assessment tools that help match interests and skills with specific occupations, career exploration through Internet access, résumé tools and resources, job search resources and career counseling.

Career Connection

An online center allowing MCC students and alumni to connect with local, regional and national job opportunities and provide employers with a user-friendly means to connect with MCC students is available at www.mccneb.edu/cwe/careerconnection.asp. The center provides:

- Electronic job management with online profiles, résumés and resources
- A database of employers interested in hiring MCC students and alums
- Listings of internship hosts and volunteer opportunities

Single Parent Displaced Homemaker Program

Single Parent/Homemaker Services (SPHS) provide a wide range of workshops and personal assistance to single parents, single pregnant women and displaced homemakers. Referral to other College offices and relevant outside community agencies is also available. SPHS staff assist students at the Elkhorn Valley, Fort Omaha and South Omaha campuses.

Disability Support Services

MCC is committed to providing appropriate services and accommodations to any student with a documented disability through Disability Support Services (DSS). To be eligible for services, students must identify themselves to DSS and provide documentation of their disability. Once appropriate documentation is received, DSS will determine the appropriate accommodations for a student. These accommodations may not always be the same as the student received in high school or at another college or university. DSS counselors are available to assist students with disabilities on an appointment-based

system. Appointments may be made by contacting Student Services.

TRIO

Specialized retention advisors and counselors are assigned to the Elkhorn Valley, Fort Omaha and South Omaha campuses to provide assistance and support to the student from a low-income, first-generation, disabled or educationally disadvantaged background. Students must apply to the program and fit criteria as determined by the Department of Education. Program objectives help the participants address educational deficiencies and overcome barriers to higher education while instilling a sense of responsibility and accountability to their futures. Services include career, academic, personal and college transfer advising and counseling; skills-building leadership experiences; professional mentoring and cultural enrichment activities. The Single Parent Displaced Homemaker Program for pregnant or parenting single students and displaced homemakers is part of the TRIO program funded in part by a Perkins Grant. See the Single Parent Program for more information.

Academic Resource Center

The College's Academic Resource Centers provide resources, technologies and services to support the learning needs of students in various areas of the College's curriculum. Students have access to state-of-the-art equipment, including printers, microcomputers and specialized software. The Academic Resource Centers are located at the Elkhorn Valley, Fort Omaha and South Omaha campuses and the Fremont Area and Sarpy centers. Services are provided free to currently enrolled students.

Math Center Services

Math Centers are located near the Academic Resource Centers and are available to students taking MCC math classes. Math Centers provide drop-in assistance, solution manuals and tutorial software, instructional videotapes, graphing programs and assessment test preparation.

Writing Centers

Writing Centers, staffed by experienced English teachers and writing consultants, provide professional assistance, writing workshops, Teacher Talk sessions and assignment design feedback to help students and faculty with written communication across academic disciplines and beyond. Simply stated, it is a place where writers invite other writers to dialogue about writing. Writing Centers are available at all College locations. For more information, visit www.mccneb.edu/writingcenter.

Tutoring

Tutoring is available to students enrolled in credit courses for selected subjects. A student experiencing academic difficulty may request assistance through Tutor Services located in the Academic Resource Centers. Other eligibility requirements may apply. For more information, contact the Academic Resource Centers at (402) 457-2677 or visit www.mccneb.edu/tutorservices.

LEARNING COMMUNITIES

Learning communities are a cohort group—a group of students who share interests and take classes together. The goal of these communities is to provide student and course connections that make classes and learning more interesting and students more successful. Benefits include:

- learning in a cooperative environment
- integrated curriculum
- individual advising/counseling
- direct contact with quality instructors
- making new friends
- small class sizes
- a better chance for academic success, increasing the likelihood of staying in college

Courses that are part of a learning community are indicated on the online course search. New learning communities are continually being developed. For complete details, visit www.mccneb.edu/learningcommunities.

Examples of current learning community opportunities include:

AIM for Success

AIM (Academic Improvement) for Success is a learning community program designed for students who need to develop their reading and writing skills to achieve proficiency at the college level. AIM is offered in a block schedule and requires students to enroll in reading and writing courses for completion of 10.5 credits during the one-quarter program.

For more information about the AIM program visit www.mccneb.edu/learningcommunities/

aimforsuccess.asp. To register, students should call Student Services.

Passport Program

The Passport Program is a learning community for students interested in starting their degrees at MCC and then transferring to a four-year institution. The learning community includes 25 students who will complete their first academic year of college together. Students attend full-time during the day, taking three courses each quarter, completing a total of 40.5 quarter credits (27 semester) that will transfer to a four-year institution.

Students have the opportunity to attend seminars an tour four-year colleges and universities. An academic advisor is assigned to the Passport group to help ensure student success. For more information, visit www.mccneb.edu/passport.

Paired Learning

Paired learning courses emphasize the relationship between two subject areas by providing students with the opportunity to learn about common topics from different points of reference. Instructors organize curriculum around projects and problem-based instruction.

TE@M

The Teacher Education @ Metro (TE@M) learning community gives students the opportunity to explore teaching as a profession. Through a partnership with the University of Nebraska–Omaha, MCC offers three transferable professional core requirement education courses. These courses, completed over two or three quarters, start students toward their Bachelor's Degree in Education and provide an economical way to determine if teaching is the career path for them. Additional information and the TE@M application can be found at www.mccneb.edu/team

Bridge to Success

Bridge to Success (BTS) is an initiative conceived by the African American Achievement Council in collaboration with Omaha Public Schools and area colleges and universities. The program provides high school students with an opportunity to have an on-campus experience while in high school. Students enroll in courses designed to promote student success by enhancing study skills and exposing them to college curriculum and resources. The BTS program provides a seamless transition for students from high school into college as well as prepares them to meet the academic expectations of colleges and universities. Classes are offered during MCC's Winter and Spring quarters. Additionally, students may take an optional course during the Summer quarter. For more information, visit www.mccneb.edu/learningcommunities/bridgetosuccess.asp.

CAMPUS SERVICES

Bookstores

The College contracts with Follett Higher Education Group to manage and operate the bookstores. The bookstores located at the Elkhorn Valley, Fort Omaha and South Omaha campuses and the Sarpy Center are open throughout the term. Hours, which vary during peak times, are prominently posted at each store or online at www.mccneb.edu/bookstore.

The Fremont Area Center has temporary bookstore services available on site at the start of each quarter. Off-campus course and online textbooks must be purchased at the South Omaha Campus.

The Applied Technology Center also has a temporary bookstore available on site at the start of each quarter. Questions regarding the ATC Bookstore can be directed to the Fort Omaha Campus Bookstore.

For further information, contact any bookstore:

- Elkhorn Valley Campus (402) 289-1208
- Fort Omaha Campus, Bldg. 10 (402) 457- 2308
- Sarpy Center (402) 537-3850
- South Omaha Campus, Connector (402) 738-4508

Campus Dining

Campus dining is available at the Fort Omaha Campus, Bldg 10, in the BrickHearth Café. Breakfast and lunch is served Monday through Friday while classes are in session. In addition, a café is located at the Elkhorn Valley Campus providing a wide array of beverages, snacks and sandwiches. The South Omaha Campus offers daily vendors for peak time dining options. Hours of operation may vary by location.

Libraries

The MCC libraries provide research materials and instruction in support of the College's curriculum. Staff members are available to assist students with their research assignments and other reference questions. Libraries are located at the Elkhorn Valley, Fort Omaha and South Omaha campuses. Current

students, faculty and staff are also welcome to use the City of La Vista Public Library at the Sarpy Center.

Each campus library houses a collection of print and audiovisual materials including books, journals, magazines, newspapers, DVDs, videos, CD-ROMs and audiobooks. The library's web page includes links to more than 40 databases providing access to online books, journals, magazines, newspapers and reference sources. Off-campus access to the databases is available for current students, faculty and staff.

Other resources available to students include:

- Library orientations/instruction
- Computers equipped with Internet access as well as Microsoft Office products (Word, Access, Excel, PowerPoint, Publisher)
- Interlibrary loan to obtain materials not available through MCC's libraries
- Photocopiers and microform reader/printers
- Audiovisual equipment including DVD and VHS players
- Reciprocal borrowing agreements with the Omaha Public Libraries, the City of La Vista Public Library and other college libraries in Nebraska

In addition to serving MCC's students, faculty and staff, the three campus libraries also provide library service to the residents of the College's four-county service area (Dodge, Douglas, Sarpy and Washington counties).

For more information about library resources and services including hours, locations, phone numbers and policies, visit the library's web page at www.mccneb.edu/library or contact a campus library:

- Elkhorn Valley Campus (402) 289-1206
- Fort Omaha Campus (402) 457-2306
- South Omaha Campus (402) 738-4506

Public Safety

Public Safety's primary objective is to provide a safe environment that enhances the learning environment and the College's educational mission. The department is responsible for providing security, responding to emergencies and traffic accidents, enforcement of campus rules and regulations and various other services. Some of these services include:

- Patrolling campus property
- Assisting students, staff and the general public with information and directions
- Assisting students and staff with automotive problems such as jumpstarting and opening vehicles when keys are locked inside
- Providing escorts for staff, students and visitors as requested

Annual Security Report

Public Safety prepares the Annual Security Report to comply with the Jeanne Clery Act. This report includes statistics for the previous three years concerning reported crimes that occurred on-campus, in certain off-campus buildings or property owned or controlled by MCC and on public property within or immediately adjacent to and accessible from MCC campus locations. The report also includes policies concerning campus security, such as policies concerning reporting sexual assault and other matters. The full text of the report is online at www.mccneb.edu/asr.pdf.

To reach Public Safety, call (402) 457-2222.

DISTRIBUTION OF LITERATURE

Student groups, staff members or organizations may not distribute written material on campus or on vehicles without prior approval of the campus dean.

SPECIALIZED TECHNOLOGY AREAS

To enhance the student learning experience, MCC provides state-of-the-art equipment and up-to-date software at numerous locations throughout the College. A dedicated IBM iSeries lab is located at the Fort Omaha Campus, and networking labs are located at the Fort Omaha Campus and Sarpy Center. Visual Arts Technology and AutoCAD labs can be found at the Elkhorn Valley and Fort Omaha campuses. Remote access is available to all students learning Information Technology. Examples include Windows, Linux, AIX, security and database management technologies.

PARKING AND TRAFFIC

All motor vehicles used by students and staff should be registered with the College. Each campus has parking zones and traffic signs prominently displayed.

There is no charge for parking permits at the College, but all rules and regulations must be observed. Parking permits are issued through Student Services.

STUDENT IDENTIFICATION CARDS

Picture student identification cards are available for all students and can be obtained at Student Services.

Student Life and Leadership

Student organizations and clubs provide students with opportunities to develop their interests in a variety of areas. New student organizations and clubs may be proposed at any time. Refer to the Student Organization and Club Handbook for brief descriptions of the organizations and clubs and for more information regarding the application process for starting a new organization or club. The Student Organization and Club Handbook as well as a current listing of clubs and organizations is available online at the Student Life web site at www.mccneb.edu/studentlife.

HONOR SOCIETIES

Tau Upsilon Alpha (human services)
Kappa Beta Delta (business)
Phi Theta Kappa (scholarship)

LEADERSHIP

Student Advisory Council

One student representative is elected from each campus/center to serve on the Council. The Council meets monthly to discuss student life, leadership and government.

Student Ex-Officio

The Student Ex-Officio is an elected student representative from the Student Advisory Council who serves on the Board of Governors and informs the Board of student activities and interests.

To learn more, contact your campus dean.

ACTIVITIES

UNO Intramurals and Outdoor Venture Center

MCC students may participate in recreational opportunities at the University of Nebraska–Omaha (UNO) Campus Recreation. Students may choose from a variety of intramural sports such as flag football, soccer, volleyball, basketball and more. Students interested in participating in UNO intramurals may visit Student Services to register and pay a $10 fee that allows them to participate in all UNO intramurals offered per UNO semester. Students then must mail their registration form and receipt to UNO. An MCC student ID is required for participating in UNO intramurals.

Students may also participate in UNO's Outdoor Venture Center programs such as hiking, canoe trips and outdoor workshops. Cost per activity varies. UNO Campus Recreation staff visit the MCC campuses throughout the year to answer questions and sign up participants.

Great Plains Theatre Conference

The Great Plains Theatre Conference strives to create an educational experience for playwrights, actors, directors, students and theatre enthusiasts from the College, the local community and beyond. Held at the end of May each year, the Conference includes several days of staged readings and critiques of new plays; panels, workshops and master classes on theatre-related topics; performances and opportunities to interact with developing and established theatre professionals.

To learn more, call (402) 457-2481, visit www.mccneb.edu/theatreconference or email theatreconference@mccneb.edu.

Student Conduct

MCC is committed to the philosophy that people should be given an opportunity to develop their skills and knowledge, as well as an awareness of their roles and responsibilities in society. The College is devoted to serving the educational and occupational needs for the four-county area and the state of Nebraska.

Registration at the College means a commitment to seriousness of purpose, academic integrity and high standards of personal and social behavior. Each student is expected to be cooperative and a responsible member of the College community, to comply willingly with College regulations and to abide by local, state and federal laws.

Student Conduct Guidelines

Questions regarding academic misconduct should be made to the appropriate academic dean; questions regarding non-academic misconduct should be made to the appropriate campus dean or administrator. Violations of these standards are subject to sanctions as set forth in Procedures Memorandum V-4.

DRUG-FREE SCHOOLS AND COMMUNITIES ACT NOTICE

MCC's standards of conduct prohibit the unlawful possession, use or distribution of illicit drugs and/or alcohol by students and employees on College property or as part of any of the College's activities. "Illicit drug use" means the use of illegal drugs and the abuse of alcohol and other drugs, including anabolic steroids. State and federal laws and any applicable city ordinances pertaining to the possession and use of illicit drugs and alcoholic beverages shall be observed by all College students and employees. A student's violation of the standards stated in this paragraph shall result in disciplinary sanctions.

Provisions of this act require the annual distribution to students of a notice of the standards of conduct. A copy of this brochure is available from Student Services.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

MCC upholds the Family Educational Rights and Privacy Act (FERPA) of 1974. The act affords the student certain rights with respect to his/her educational records. These rights include:

- the right to inspect and review his/her education records within 45 days of the day the College receives a request for access
- the right to request the amendment of his/her education records that he/she believes are inaccurate or misleading
- the right to consent to disclosures of personal identifiable information contained in his/her education records, except to the extent that FERPA authorizes disclosure without consent
- the right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA

MCC has designated the following contained in educational records as directory information so that the College may, at its discretion, disclose the information without the student's prior consent:

- Student's name
- Student's address
- Student's phone number
- Student's date of birth
- Student's email address
- Degrees and awards received
- Student's major field of study
- Confirmation of enrollment/degree

Students must notify Enrollment Services in writing of any or all items they do not wish to be designated as directory information in their records.

For detailed information regarding student rights as provided for in the Family Educational Rights and Privacy Act, see the Student Rights and Responsibilities Guidelines that are available in Admissions and Records.

Academic Information

GRADING SYSTEM

- **A – Excellent** The student has demonstrated outstanding proficiency in mastering course objectives. (4 points per credit in computation of grade point average)
- **B – Above Average** The student has demonstrated above average proficiency in mastering course objectives. (3 points per credit in computation of grade point average)
- **C – Average** The student has demonstrated average proficiency in mastering course objectives. (2 points per credit in computation of grade point average)
- **D – Below Average** The student has demonstrated below average but passing proficiency in mastering course objectives. (1 point per credit in computation of grade point average)
- **F – Failing** The student has not demonstrated a minimum passing proficiency in mastering course objectives. (0 points per credit in computation of grade point average)
- **FX – Failure related to non-attendance**
- **I – Incomplete** Due to extenuating circumstances, a student may be given an extension of time to complete course objectives. An I grade must be made up prior to the end of the succeeding term or it becomes an F. Assignment of I grades is a

faculty prerogative and is issued when the student who has completed the majority of the course requirements is unable to complete the remainder due to unusual or extenuating circumstances. (An incomplete does not count in computation of grade point average).

- **WX – Instructor Withdrawal** Faculty withdrawal due to non-attendance. The WX is issued before the class census date and the student is deleted from class(es).
- **P – Pass** A P is an indication that the student has completed the coursework satisfactorily. It is used for all developmental courses and other courses at the discretion of the College. (Does not count in the computation of grade point average.)
- **R – Re-enroll** The student has made satisfactory progress but should re-enroll until course objectives are completed and is used for developmental courses only. (Does not count in computation of grade point average)
- **V – Audit** An audit (no credit) does not count in computation of a grade point average. Audits are processed by the last day to drop classes. An audit is not an option for online classes.
- **W – Withdrawal** A W is an indication of an action requested by the student. The student must officially withdraw from a course prior to the last day to drop classes. The student may call Registration to officially withdraw or drop via WebAdvisor. A W may not be changed to a grade. (Does not count in the computation of grade point average)
- **Z – Unreported** grade A Z is an indication of an administrative action by the College. This action is taken when a grade is not reported by the faculty member. (Does not count in computation of grade point average)

Grade Point Average (GPA)

The student's grade point average (GPA) is determined by dividing the total number of grade points earned by the total number of credits attempted in those courses that count toward the student's grade point average.

To calculate a grade point average (GPA):
Grade – Value x Credit Hrs Completed = Grade Pts

A – 4 x 4.5 = 18
B – 3 x 4.5 = 13.5
C – 2 x 4.5 = 9
D – 1 x 4.5 = 4.5
F – 0 x 4.5 = 0
FX – 0 x 4.5 = 0

Example:

Course	Grade	Hours Completed	Grade Pts
ENGL 1010	A	4.5	18
BSAD 1000	C	4.5	9
INFO 1001	F	4.5	0
PHOT 1510	D	3.0	3
Totals		**16.5**	**30**

Take the total number of grade points (30) and divide by total hours completed (16.5): GPA = 1.82
Note: Actions of R, P, IW, W, V, Z and Q do not apply toward GPA but do appear in attempted hours.

Auditing a Course

A student who wants to attend a course without taking examinations or receiving credit for a course may register as an audit student. The student who audits a class pays the regular tuition rate and fees. Audited courses do not count toward graduation requirements nor satisfy prerequisite requirements for other courses.

Courses that are eligible for audit are determined by the appropriate academic dean; not all courses will be available for audit by a student. Online courses may not be audited. An audit student may not change from audit to credit status once the course has started.

A student receiving financial aid or veterans' benefits cannot count audited courses to establish full- or part-time status.

Repeat of a Course

A student may repeat a course in which he/she did not receive at least a C grade. Both grades will remain on the permanent record; the latest grade is used to compute the grade point average. A student may repeat a course in which he/she received a grade of C or better if they audit the class; courses may not be repeated for credit if the final grade was a C or better unless approved through the academic dean with faculty consultation.

Process for Grade Appeals

A student who wishes to appeal a grade must follow the appeal procedure listed below. The appeal process for course grades must be initiated no later than the end of the quarter (last class day) following the quarter in which the course was completed. The appeal process begins when a student writes a letter to the instructor (first level of appeal). If dissatisfied with the appeal at any level, the student may appeal in writing to the next level:

- 1st Level: Instructor
- 2nd Level: Appropriate academic dean
- 3rd Level: Vice President for Academic Affairs

MCC retains the student's official academic records (transcript). Student financial aid records are retained for three years plus the current year.

The student who believes there is an inaccuracy in his/her official academic record (transcript) must notify the Records immediately. The transcript is the final, accurate record of academic accomplishment.

Academic Amnesty

A student who wishes to petition for academic amnesty (elimination of a course(s) from a previous quarter), must meet the following provisions below. The amnesty process begins when a student meets with an academic advisor to complete the petition. The petition requests the elimination of one quarter (maximum of 24 credit hours) of classes.

- The policy pertains to a student who was enrolled at MCC and then re-enrolled
- After re-enrollment, the student must have successfully completed a minimum of 24 credit hours of 1000- or 2000-level classes with a minimum grade point average of 2.50
- The students' permanent record will reflect the original grade(s) received
- Academic amnesty may be granted only one time
- Academic amnesty may be applied to grades or other actions, such as withdrawals, which will be eliminated from attempted hours and grade point average calculation

ACADEMIC AWARDS

MCC offers a wide range of programs of study leading to the associate in applied science degree, associate in arts degree, associate in science in nursing, certificate of achievement and specialist diploma.

Associate in Applied Science Degree (AAS)

The associate in applied science degree is awarded to a student completing the requirements of one of the career programs with a minimum of 96 quarter hours and a maximum of 110 quarter hours unless noted for accreditation purposes. An associate in applied science degree prepares the graduate for entry-level positions and is accepted by several four-year institutions under A-to-B agreements.

Associate in Arts Degree (AA)

The associate in arts degree is awarded to a student completing the requirements of the Liberal Arts/ Academic Transfer. This degree parallels the work done in the first two years at a four-year institution.

Associate in Science Degree (AS)

The associate in science degree is an academic transfer degree awarded to a student completing the courses required for the degree. This degree is generally transferable as the first two years at a baccalaureate program or in meeting the minimum requirements for entrance into a designated professional program of study.

Associate in Science in Nursing Degree (ASN)

The associate in science in nursing degree is awarded to a student completing the program requirements of the associate degree nursing program with a minimum of 108 credit hours and a maximum of 110 credit hours, unless noted for accreditation purposes. The graduate awarded this degree is eligible to take the NCLEX Exam for licensure as a registered nurse. Many of the required courses transfer to four-year institutions.

Certificate of Achievement

The certificate of achievement is awarded to a student upon successful completion of the requirements of one of the career programs with a minimum of 48 quarter hours and a maximum of 55 quarter hours.

Degree/Certificate Option

The degree/certificate option is a specialization within a program of study. A diploma is awarded for the degree/certificate not the option.

Specialist Diplomas

Specialist diplomas represent a structured sequence of courses that may be completed in a relatively short

period. In some cases, the entire module may be completed in a single term of study; in other cases, two or three terms may be needed because of course prerequisites or other factors.

GRADUATION REQUIREMENTS

The requirements for graduation at MCC are those specified in the College catalog or the student may elect to meet the requirements stated in a later catalog if they attended during that catalog year. A student who does not complete program requirements within four years is subject to the current catalog or any preceding catalog within four years if he/she attended during that catalog year.

A student should be aware that course prerequisites and/or the need for developmental work in English, math, reading and/or science may extend the time necessary for completion of a College degree, certificate or specialist diploma. The student must satisfy course prerequisites as specified in the current College catalog even if graduating under the provisions of an earlier catalog.

To graduate with honors, a student must earn a cumulative grade point average of 3.50 or above in his/her program of study.

There is a graduation application fee of $25 (non-refundable) per graduation application. There is no fee for a specialist diploma application. Deadlines to file a graduation application are as follows:

- Fall quarter ..... Nov. 1
- Winter quarter ..... Feb. 1
- Spring quarter ..... April 1
- Summer quarter ..... July 1

An annual ceremony to honor graduates and applicants (Fall, Winter, Spring and Summer) is held in May of each year.

Degrees: Associate in Applied Science, Associate in Arts, Associate in Science or Associate in Science in Nursing

To be eligible for graduation with an associate degree, a student must have:

- Completed a graduation application form with payment, appropriate signatures and submitted it by the deadline to:

  Metropolitan Community College
  Records
  P.O. Box 3777
  Omaha, NE 68103-0777

- Successfully completed all program course requirements encompassing a minimum of 96 credit hours as outlined in the College catalog. This includes successful completion of a minimum of 24 credit hours in residence at the College or be enrolled in a approved statewide initiative program and have designated MCC as their home institution
- Earned a grade point average of at least 2.0 in all studies that are applicable toward graduation from a program of study and be in good academic standing
- Resolved all College financial obligations and returned all library and College materials

Certificate of Achievement

To be eligible for graduation with a certificate of achievement, a student must have:

- Completed a graduation application form with payment, appropriate signatures and submitted it to the Records at the address listed above
- Successfully completed all course requirements of a program of study encompassing a minimum of 48 credit hours as outlined in the College catalog with a minimum of 15 credit hours in residence at the College
- Earned a grade point average of at least 2.0 in all studies attempted and applicable toward graduation from a program of study and be in good academic standing
- Resolved all College financial obligations and returned all library and College materials

Specialist Diploma

Designed for the currently employed person seeking job-relevant career development. Specialist diploma modules represent a structured sequence of courses that may be completed in a relatively short period. Diplomas range from a minimum of 24 quarter hours to a maximum of 36 quarter hours.

At least two-thirds of the credits leading to the specialist diploma must be completed at MCC, and a grade of C or better is required as well as to be in good academic standing. Specialist Diplomas are mailed to the student.

DEAN'S LIST

MCC celebrates the student who has completed coursework with excellence. Outstanding academic achievement is recognized through the Dean's List each quarter. To qualify for the Dean's List, the student must:

- Complete a minimum of 12 credit hours in graded 1000-level or above classes;
- Complete at least six credit hours in 1000-level or above classes for the term in which he/she is qualifying; and
- Achieve at least a 3.5 grade point average for the quarter in which he/she is qualifying.

The student receives notification from the Vice President of Academic Affairs, and the student's name is publicized on the MCC web site and sent to select newspapers.

STANDARDS OF ACADEMIC PROGRESS

Student Academic Progress

To encourage satisfactory progress throughout continuous terms of enrollment, the College's academic progress policy establishes specific standards that must be met by all students enrolled in credit courses at the College.

When a student is on warning or probation after suspension or dismissal, the College may restrict the number of credit hours for which he/she may enroll during a quarter. The College may also establish other special conditions under which the student may enroll including regular meetings with counselors and advisors, enrollment in developmental courses, participation in career development activities and completion of assessment tests.

The following table outlines the College's Standards of Progress Policy. The student should note there are differing credit hour guidelines for students pursuing an associate degree and students pursuing other goals. Questions regarding this table should be addressed in Student Services.

Standards of Progress						
Other than Associate	**0-11.5 Credit Hours**	**12-22.5 Credit Hours**	**23-29.5 Credit Hours**	**30-39.5 Credit Hours**	**40+ Credit Hours**	**Action**
Associate	**12-23.5 Credit Hours**	**24-45.5 Credit Hours**	**46-59.5 Credit Hours**	**60-79.5 Credit Hours**	**80+ Credit Hours**	
Warning*	Less than 1.5 cumulative GPA based on the number of hours above completed	Less than 1.79 cumulative GPA based on the number of hours above completed or completion of less than half the number of registered hours	Less than 1.99 cumulative GPA based on the number of hours above completed or completion of less than half the number of registered hours			The student may be limited to 12 credit hours that must be under direction of the student's advisor or counselor. The student may be placed in a developmental career development program.
Probation**		Less than 1.5 cumulative GPA based on the number of hours above completed or completion of less than half of the number of registered hours	Less than 1.79 cumulative GPA based on the number of hours above completed or completion of less than half of the number of registered hours	Less than 1.99 cumulative GPA based on the number of hours above completed or earned less than half of the number of registered hours		The student may be limited to 12 credit hours that must be under the direction of an advisor or counselor.
Suspension^			Less than 1.5 cumulative GPA based on the number of hours above completed or completion of less than half of the number of registered hours	Less than 1.79 cumulative GPA based on the number of hours above completed or completion of less than half of the number of registered hours	Less than 1.99 cumulative GPA based on the number of hours above completed or completion of less than half of the number of registered hours	Discontinue enrollment for one quarter
Dismissal^^			Upon returning from suspension, a student shall be limited to 12 credit hours initially that must be approved by an advisor or counselor. If the student earns less than a 2.0 GPA for courses completed in that quarter or completes less than half the number of registered credits in that quarter, the student may be placed on dismissal.			Discontinue enrollment for at least one year

*Warning signifies the student is not meeting minimum academic requirements of the College.
**Probation is a warning that a student is not meeting minimum requirements of the College.
^Suspension signifies that a student has not met minimum requirements of the College and will not be permitted to register for the following quarter.
^^Dismissal signifies that a student has not met the basic academic requirements of the institution. Dismissal can be permanent.

There is an appeal process for students on suspension and dismissal. Contact Student Services for more information.

MCC Learning Initiatives

DISTANCE EDUCATION

Online Courses

Online courses make it as easy as possible for you to balance commitments of schedule and studies by allowing the classroom to come to you, wherever you are. Apart from textbooks, everything you need is accessible via the Internet using a standard web browser. Each week you will log on to ANGEL to access the online course(s) you are enrolled in. MCC's online courses are built upon a tradition of more than 20 years of delivering alternative learning. Online credit courses are equivalent to on-campus courses and maintain the same academic standard in content, assignments and credit. Every course is managed by a qualified MCC instructor who will provide information, guide students, prompt discussion, help with assignments, answer questions and grade work. Any student may use the College computers in the Academic Resource Centers, computer labs or libraries. One-on-one assistance is available to students at the Academic Resource Centers who wish to learn how to take online classes. Additionally, services from the Writing and Math centers are available for online students. Librarians are available by phone and in person to help with resources including more than 50 online research databases. MCC is fully accredited by the Higher Learning Commission. International students and students for whom English is not their first language must provide a current TOEFL report or take the on-campus Michigan (ESL) assessment. Online courses are offered only in English. If English is not a first language, contact Enrollment Services at (800) 228-9533 extension 2421. They will provide guidelines for international students wanting to take online courses.

Hybrid courses

Hybrid courses combine classroom learning with a significant online component. The benefits of on-site classroom learning and the convenience of an online class are rolled into one. Typically students in hybrid courses work online during portions of the week and/or quarter and then come to campus to apply and refine their skills, participate in labs, etc.

Students in hybrid courses will receive orientation materials from their instructors prior to the beginning of the quarter.

Support Services

Any student may use the College computers in the learning centers, computer labs or libraries. One-on-one assistance is available to students at the Academic Resource Centers who wish to learn how to take online classes. Additionally, services from the Writing and Math centers are available to e-learning students. Librarians are available by phone and in person to help with resources including more than 50 online research databases.

Course Conferencing

Course conferencing offerings enable students to attend classes with students at other MCC locations. You interact with the instructor and students at other campuses via video and audio connections.

Community Initiatives

Adult Education

Adult Education (AE) is a program sponsored jointly by the Nebraska State Department of Education and MCC. This program is for the adult 19 years of age or older with less than a ninth-grade level of attainment; however, a person between the ages of 16 and 19 who is not enrolled in a regular high school program may enroll with special permission from the Nebraska State Department of Education. The student is offered the opportunity to develop basic skills in reading, writing and math. Upon completion of this course of study, the student is ready to prepare for the General Educational Development (GED) examination. Classes are free.

Apprenticeship

MCC offers a four-year apprenticeship training program in electrical and plumbing trades. The program is offered at the Industrial Training Center located at South Omaha Campus. The electrical curriculum is approved by the State of Nebraska Electrical Board, and the plumbing curriculum is approved by the City of Omaha Plumbing Board. All instruction is during the evening. For more information, call (402) 738-4034.

Students who have successfully completed an approved apprenticeship program through one of the local unions or an approved in-house apprenticeship program through a company may receive up to 56 credits towards their associate degree. For more information about this program, contact the Coordinator of Programs at (402) 738-4034.

Community Education

Community Education is focused on providing the community with a variety of noncredit learning opportunities such as using Excel and Word, learning a language or writing a résumé. Community Education may also provide the community with personal enrichment activities like learning to dance, trying watercolor painting, repairing a house or improving mental and physical health.

Corporate Education & Training

Whether a small business, Fortune 500 company or nonprofit, the Corporate Education & Training (CET) Division of MCC helps businesses meet and exceed their unique goals. Partnering with CET provides businesses with cutting-edge education and training custom-made for each business and also offers personal, one-stop services. CET's value-add services include:

- One-stop, dedicated customer support
- On-site customized training
- Online training
- Accelerated credit degree programs on site or on campus
- Business employee enrollment program
- Dedicated client academic advisor
- Personalized registration
- Business summary billing option
- Deferred payment option

English-as-a-Second Language Classes (ESL)

MCC's English-as-a-Second Language (ESL) Program offers both credit and noncredit learning options for the student who needs to develop his/her English language proficiency. Both credit and noncredit classes are offered to provide a sequenced program of instruction. An intensive credit program is also offered. This enables the student to begin his/her study of the English language at basic literacy levels and progress through ESL courses at intermediate and advanced levels.

The student who enters the ESL Program is required to complete assessment testing to determine appropriate placement into the sequence of courses. To register for assessment testing, the individual should call Student Services.

Additional information concerning noncredit ESL instruction can be obtained through Adult Education at (402) 457-2312. Information about credit ESL courses can be obtained from the South Omaha Campus Student Services at (402) 738-4505 or the office of the Dean of Learning Design and Support at (402) 457-2366.

General Education Development (GED)

General Education Development (GED) is a high school completion program jointly sponsored by the Nebraska State Department of Education and MCC for the adult 19 years of age or older; however, a person who is at least 16 years of age and not in a regular high school program may enroll with special permission.

This program consists of GED preparation classes and GED testing. Classes are free. These classes prepare the adult for the GED examination, which is a nationally standardized test of high school equivalency for adults. There is an application fee for the high school diploma and a testing fee; the high school diploma is issued by the Nebraska Department of Education upon successful completion of the examination.

The GED examination consists of the following five timed tests:

Language Arts/Writing .....50 questions + 1 essay (2 hours)
Social Studies ..... 50 questions (1 hour, 10 minutes)
Science.....50 questions (1 hour, 20 minutes)
Language Arts/Reading .....40 questions (1 hour, 5 minutes)
Mathematics..... 50 questions, 2 parts (1 hour, 30 minutes)

MCC is authorized by the Nebraska State Department of Education as a testing center.

Independent Study

Independent study allows a student to pursue, for credit, subject areas of interest outside of the existing College course structure. In certain instances, independent study may be used to complete the requirements for regularly offered courses.

The student wishing to take an independent study course must have the course approved by the faculty member and appropriate academic dean. The interested student should begin this process by contacting a faculty member teaching in the area of study.

Internship/Co-op Work Experience

MCC's Internship/Cooperative Education program places the student in a working and learning environment for on-the-job training in his/her particular field of study before graduation. The student is placed with business, industry or social services agencies.

An internship or co-op may be applied to many programs of study. Variable credit is granted for successful completion of training periods.

The interested student should contact the appropriate academic dean for eligibility requirements and application procedures.

Secondary Partnerships

MCC has established numerous partnerships with area high schools for the benefit of students. Dual enrollment courses, career academies and high school-to-college transfer classes benefit students at the high school level. Other partnership activities enhance career relevance and rigor to prepare students for a wide array of postsecondary options.

Reserve Officers Training Corps (ROTC) Program

The ROTC Program at MCC is a joint venture between the Army ROTC program at Creighton University and the Air Force ROTC program at the University of Nebraska–Omaha (UNO). The program provides leadership training for the student who has an interest in becoming an officer in these services. Through written agreements, an MCC student may take the first two years of ROTC courses. While these courses are offered at Creighton University or UNO, by enrolling in the equivalent courses at MCC, students only need to pay MCC tuition. The required courses appear in this catalog under ROTC.

For further information, interested students should contact either the Army ROTC program at Creighton University (402) 280-1152, the Air Force ROTC program at UNO (402) 554-2318 or Student Services.

Service-Learning and Cooperative Education

MCC understands how important it is to provide real-world experiences to reinforce what our students learn in the classroom.

- **Service-learning** – projects that reinforce academic learning and promote civic engagement
- **Cooperative education** – internships and practicum experiences for MCC students

High School Articulation

High School Articulation is a course of study that prepares the high school graduates to continue their postsecondary education in technically oriented careers and enhances school-to-career transition. It is a partnership effort between secondary and postsecondary institutions that promotes seamless educational pathways through career pathways and articulation agreements.

Career pathways provide a coherent sequence of courses that blend secondary education with two-year associate degree programs at MCC, which may furthermore provide articulation with four-year institutions. Secondary program areas include agriculture, business, family/consumer science, industrial technology, marketing and trades/industry. The career pathway serves as a guidance tool for counselors by presenting a four-year plan of study, two of which are spent at the secondary level and two at the postsecondary level.

For more information about High School Articulation and how students can take advantage of articulated credit, visit www.mccneb.edu/secondary.

Weekend College

Friday, Saturday and Sunday weekend offerings include:

- college credit courses leading to a certificate or associate degree
- credit and noncredit courses to make a person a more effective employee and to facilitate job advancement
- special credit and noncredit courses to meet the particular needs of industrial, business, professional and civic group

A student may enroll in a single course or a co mbination of courses to meet a special need or interest. He/she can improve or acquire special skills by enrolling in technical and occupational courses.

A course taken in the evening and/or on the weekend carries the same credit as a course taken in the regular day program, unless it is a noncredit course offering.

Admission requirements, academic regulations and student policies, as set forth in this catalog, apply to the evening and weekend student as they do to the day student.

PROGRAMS OF STUDY

ARTS

BUSINESS/OFFICE

COMPUTING/ELECTRONICS

CULINARY/HORTICULTURE

HEALTH

INDUSTRIAL/TECHNICAL

PUBLIC SERVICE

TRANSFER PROGRAMS

OUTCOMES ASSESSMENT

MCC values and encourages the systematic assessment and improvement of teaching and learning. The College's faculty-led Outcomes Assessment Committee has coordinated the implementation of a Collegewide Program for the Assessment of Student Learning. The Outcomes Assessment Committee has stated the following purposes for the assessment of student learning:

- improving the teaching and learning process
- improving programs and courses
- providing accountability to the community
- providing data for informed decision-making

Every degree program at the College has a Program Assessment Plan that guides program faculty in the collection of data to improve curricula, teaching methodologies and delivery methods. This assessment program is a continuous improvement process to enhance student learning. As the implementation of the Assessment Program progresses throughout the College and as more data are available for improvements in the teaching and learning process, the ultimate benefactor will be students.

Students will be asked to complete assessment activities as part of this important assessment process.

GENERAL EDUCATION RATIONALE

MCC recognizes the importance of preparing students for success in both their personal and professional lives. MCC students develop, across the curriculum, both the knowledge base of a program of study as well as the career skills needed to become a productive individual, an effective and contributing team member and a person who appreciates the importance of lifelong learning and self-improvement. Vital to the preparation for lifelong learning skills is the development of competencies in:

- Communication – An effective communicator expresses thoughts, ideas and feelings in both written and oral modes in order to be successful in his/her education and professional career. This requires students to develop critical reading, writing, speaking and listening skills early in their college experience and to have these skills reinforced throughout their program curricula. An effective communicator:
    - Engages in the four stages of the communication process: collecting, shaping, drafting and revising.
    - Selects, organizes and presents details to support a main idea
    - Participates in groups using a variety of collaborative techniques
    - Uses knowledge of target audience expectations and values to shape a text
    - Uses various techniques in writing and speaking including authority, point-of-view, style and voice
    - Employs good mechanics and word usage choice
- Critical thinking – Critical thinking stresses a rational process, demonstrates logical inquiry and problem-solving and leads to an evaluative decision or action. It plays an important part in personal, social and professional development. It helps learners uncover bias and prejudice in ideas. Critical thinking encourages learners to develop a willingness to consider different points of view and to explore possibilities. It underlies the basic elements of communication, writing, speaking and listening. A critical thinker:
    - Interprets and evaluates statements, theories, problems and observations from different points of view or perspectives
    - Questions the validity of assumptions, evidence and data
    - Assesses the value or importance of positions, policies and formulated solutions
    - Employs the logic of argument
- Information literacy – Information literacy is a set of abilities to recognize when information is needed; to retrieve, manage and organize the needed information; and to locate, evaluate and use technology in the gathering of this information. It enables learners to master content and extend their investigations, to become more self-directed and to assume greater control over their own learning. An information literate learner:
    - Determines the extent of information needed
    - Critically evaluates information and its sources
    - Incorporates selected information into a personal knowledge base
    - Uses information ethically and legally
    - Utilizes software to manage, present and store information
- Numeracy – From balancing a checkbook to managing a business, numbers play an integral part in life experiences. Success in both a career

field and personal experiences involves the effective use and understanding of numbers. Numeracy is the ability to think about, express and evaluate information in quantitative terms. A numerically literate individual:

- Interprets, analyzes and solves basic numerical problems
- Estimates the reasonableness of an answer
- Interprets, evaluates and presents graphic/tabular data

- Scientific inquiry – Science plays a vital role in today's society from environmental issues to health issues to economic issues. To assess the validity of scientific information, students should be able to effectively evaluate and use the scientific process. A scientific inquirer:
  - Applies the scientific inquiry process to a situation
  - Communicates the importance of science in daily life
  - Evaluates societal issues from a scientific perspective
  - Makes informed judgments about science-related topics and/or policies
- Social cultural awareness – Social and cultural awareness provides the basis to understand how each of us shapes, and is shaped by, our culture and society, as well as recognizing and understanding the obligation to engage in ethical, safe and legal behaviors. A socially and culturally aware individual:
  - Appreciates the influence of history, geography, the arts, humanities and the environment on individual cultural development
  - Distinguishes subjective opinions and ideology from objective findings and data
  - Recognizes social and individual biases
  - Develops personal and social responsibility and participates as an engaged citizen
  - Recognizes individual differences, values diversity and displays global awareness

It is in this spirit that the College promotes the importance of general education. General education core requirements must be completed by every student that completes a program at MCC. In most programs, general education requirements are already determined; in programs where specific courses are not outlined, the student should use the list on page 40 of approved general education courses to complete minimum requirements for general education.

General Education Course Areas	Competencies Covered in Course Area	Credit Hours Required
Communications	Communication, Critical Thinking, Social Cultural Awareness	9.0 Credit Hours
Humanities/Social Sciences	Scientific Inquiry, Social Cultural Awareness, Critical Thinking	4.5 Credit Hours
Quantitative/Numeracy Skills	Numeracy, Critical Thinking	4.5 Credit Hours
Human Relation Skills	Social Cultural Awareness, Scientific Inquiry, Critical Thinking	4.5 Credit Hours
Information Systems and Literacy	Information Literacy	4.5 Credit Hours
Science	Scientific Inquiry	Variable depending on program of study

General Education Course Options

Associate in applied science degrees:

Communications	9 credit hours
Humanities/Social Sciences	4.5 credit hours
Quantitative/Numeracy Skills	4.5 credit hours
Other	9 credit hours
	27 credit hours*

Certificates of achievement:

Communications	4.5 credit hours
Humanities/Social Sciences	4.5 credit hours
Quantitative/Numeracy Skills	4.5 credit hours
	13.5 credit hours*

Associate in arts degrees:

Communications	13.5 credit hours
Quantitative/Numeracy Skills	4.5 credit hours
Other	9 credit hours
	27 credit hours*

Associate in science degrees:

Communications	13.5 credit hours
Quantitative/Numeracy Skills	4.5 credit hours
Other	9 credit hours
	27 credit hours*

*The requirements specified above apply to all degrees and certificates; however, there may be additional requirements for individual programs.

Communications

English
ENGL 1010 (Level I)
ENGL 1020 (Level II)
OR
ENGL 1210 (Level I)
ENGL 1240 (Level II)
OR
ENGL 1230 (Level I)
ENGL 1240 (Level II)
OR
ENGL 1220 (Level I)
ENGL 1240 (Level II)

Social Sciences

Economics
ECON 1000
ECON 1100

Geography
GEOG 1010
GEOG 1050
GEOG 2150

History
HIST 1010
HIST 1020
HIST 1050
HIST 1060
HIST 1110
HIST 1120
HIST 2050
HIST 2200
HIST 2220

Political Science
POLS 2050
POLS 2060
POLS 2070

Psychology
PSYC 1000
PSYC 1010
PSYC 1110
PSYC 1120
PSYC 1130
PSYC 2140
PSYC 2150
PSYC 2350
PSYC 2450
PSYC 2550

Sociology
SOCI 1010
SOCI 1050
SOCI 1100
SOCI 1250
SOCI 2050
SOCI 2060
SOCI 2110
SOCI 2150
SOCI 2160
SOCI 2310
SOCI 2311
SOCI 2450
SOCI 2550
SOCI 2650

Humanities

Architectural Drafting
ARCH 1000

Art
ARTS 1000
ARTS 1010
ARTS 1110
ARTS 1120

English
ENGL 1250
ENGL 1310
ENGL 2450
ENGL 2460
ENGL 2470
ENGL 2480
ENGL 2481
ENGL 2490
ENGL 2510
ENGL 2520
ENGL 2900

French
FREN 1010

German
GERM 1010

Humanities
HUMS 1000
HUMS 1110
HUMS 1120
HUMS 1130
HUMS 1140
HUMS 1150
HUMS 2310

Japanese
JAPN 1010

Music
MUSC 1010
MUSC 1020
MUSC 1050
MUSC 1110
MUSC 1120

Photography
PHOT 1110

Philosophy
PHIL 1010
PHIL 1030
PHIL 1100
PHIL 2030
PHIL 2200
PHIL 2400
PHIL 2600

Sign Language
SLIS 1010

Spanish
SPAN 1110

Speech
SPCH 1110*
SPCH 1120
SPCH 1220
SPCH 1300
SPCH 2900

Theatre
THEA 1000
THEA 2010
THEA 2020
THEA 2021
THEA 2040
THEA 2050
THEA 2110

* SPCH 1110 can be used as a communications course for transfer.

Natural Sciences

Lab courses:

Biology
BIOS 1010
BIOS 1111
BIOS 1310

Chemistry
CHEM 1010
CHEM 1210

Geography
GEOG 1150
GEOG 1160
GEOG 1210

Physics
PHYS 1010

Science
SCIE 1010
SCIE 1300/1310

Quantitative/Numeracy Skills

MATH 1220
MATH 1240
MATH 1260
MATH 1310

Other

Information Systems and Literacy
INFO 1001

Human Relations
HMRL 1010 or HMRL 101A, HMRL 101B and HMRL 101C modules

Program Grid

Metropolitan Community College Programs by Department		
ACADEMIC PROGRAM (MAJOR CODE)	**AWARDS OFFERED**	**LOCATIONS OFFERED**
ARTS (PAGE 46-65)		
Art (ARTAA/ARTCE) pg. 47-48	Associate Degree Certificate	EVC
Electronic Imaging and Media Arts (EIAS3) pg. 49	Associate Degree	EVC
Graphic Communication Arts and Design (GCAS1) pg. 51	Associate Degree	EVC, FOC
Interior Design (IDAS1/IENCE) pg. 53-54	Associate Degree Certificate	EVC
Photography – General Commercial (PTAS2/PTYCE) pg. 55-57	Associate Degree Certificate	EVC
Theatre (THEAA/THECE) pg. 58	Associate Degree Certificate Specialist Diploma	EVC, FOC, SOC
Playwriting (THEPC/THEPD) pg. 59		
Theatre Technology (THETC/THETD) pg. 59-60		
Video/Audio Communications Arts (VAAAS/VACCE) pg. 61/62	Associates Degree Certificate Specialist Diploma	EVC
Digital Cinema (VDCCE) pg. 64		
Screenwriting (VACSE/VACSD) pg. 65		
Sound Recording (VSRCE) pg. 63		
BUSINESS/OFFICE CAREERS (PAGE 66-105)		
Accounting (ACAAS) pg. 67	Associate Degree	EVC, FOC, SOC
Bookkeeping (BKPCE) pg. 69	Certificate	EVC, FOC, SOC, SRP, online
Business Management (BMAAS) pg. 70-83	Associates Degree Certificate Specialist Diploma	EVC, FOC, SOC, SRP, online
Business Transfer (BSTAA) pg. 85	Associate Degree	EVC, FOC, SOC, SRP, online
Financial Planning (BMPC1) pg. 84	Certificate	EVC, FOC, SRP, Online
Health Information Management Systems (HIMAS) pg. 87	Associate Degree	EVC, FOC, SOC, SRP, online
Medical Coding and Billing (HIMCI) pg. 88		
Medical Office Management (HIMOM) pg. 88		
Medical Transcription (HIMO1) pg. 89		
Legal Studies (LAAS3) pg. 90	Associate Degree Certificate	SOC
Legal Administrative Assistant (LSAAO) pg. 94		
Paralegal (LSPAO) pg. 91		
Pre-Law (LSPLO) pg. 93		
Legal Studies – Accelerated Certificate (LSACC) pg. 95		
Medical Office (MOPC1) pg. 96	Certificate	EVC, FOC, FRC, SOC, SRP, online
Medical Coding and Billing Assistant (MOCB1) pg. 97		
Medical Office Assistant (MOOA1) pg. 98		
Medical Transcription (MOTC1) pg. 99		
Office Technology (OTAAS) pg. 100	Associate Degree	EVC, FOC, SOC
Administrative Assistant (OTAAO) pg. 101		
Office Professional (OTOPO) pg. 102		

Metropolitan Community College Programs by Department		
ACADEMIC PROGRAM (MAJOR CODE)	**AWARDS OFFERED**	**LOCATIONS OFFERED**
Microcomputer Office Technology (OSTC1) pg. 103	Certificate	EVC, FOC, SOC, online
Information Technology (OTTCO) pg. 104		
Office Applications (OTGC1) pg. 105		
COMPUTING/ELECTRONICS (PAGE 106-136)		
Call Center Specialist (CCSCE/CCESD) pg.107	Certificate Specialist Diploma	FOC
Computer Technology Transfer – Computer Science (CTSAS) pg. 108	Associate Degree	EVC, FOC, SOC
Computer Technology Transfer – Management Information Systems (CTMAS) pg. 109	Associate Degree	EVC, FOC, SOC
Database Systems (DBSCE) pg. 110	Certificate	FOC
Electronics Technology (ELAAS/ELTCE)	Associate Degree Certificate Specialist Diploma	SOC
Cisco Certified Network Associate (ECASD) pg. 115		
Cisco Networking (ELCCO) pg. 113		
Cisco Network Technician (ELNCO) pg. 111		
Cisco Wireless Infrastructure (ECWSD) pg. 115		
Computer Electronics (ELCEO) pg. 112		
Microcomputer Repair (ELMCO) pg. 114		
General Information Technology (GITAS) pg. 116		
IBM i Systems (CASC2) pg. 117	Associate Degree	EVC, FOC, SOC, online
Information Technology (INTAS/ITPSD) pg. 118	Certificate	FOC
Database Administration (ITDAO) pg. 120	Associate Degree Specialist Diploma	EVC, FOC, SOC, online
Data Center Management (ITDCO). pg. 119		
Desktop Specialist (ITDSO) pg. 121		
e-Commerce (ITECO) pg. 122		
Helpdesk (ITHDO) pg. 123		
Programming for Database/Web (ITDWO) pg. 124		
Server Administration (ITSAO) pg. 125		
Web Development (ITWDO) pg. 126		
Microcomputer Technology (MCTCE) pg. 128		
Data Center Technician (MCDCO) pg. 129	Certificate Specialist Diploma	FOC, SOC, online
Network Technician (MCNCO) pg. 130		
Security Technician (MCSTO) pg. 131		
Server Technician (MCSRO) pg. 132		
Web Author (MCWCO) pg. 133		
Oracle Database Systems (ODBCE) pg. 135		
UNIX/LINUX Operating Systems (LNXCE) pg. 136	Certificate	FOC
	Certificate	EVC, FOC, SOC

Metropolitan Community College Programs by Department		
ACADEMIC PROGRAM (MAJOR CODE)	**AWARDS OFFERED**	**LOCATIONS OFFERED**
CULINARY/HORTICULTURE (PAGE 137-154)		
Culinary Arts and Management (CAAS1/CAMCE) pg. 139/142	Associate Degree Certificate Specialist Diploma	FOC
Bakery and Pastry (CABA2) pg. 140		
Chef's Apprenticeship (CACH1) pg. 140		
Culinary Arts (CACA1) pg. 140		
Culinary Management (CACM1/CCMSD) pg. 140		
Culinology™ Transfer (CACR1) pg. 140		
Hospitality and Restaurant Leadership (CHRAS) pg. 145	Associate Degree	FOC
Food and Beverage Transfer (CHFAO) pg. 146		
Lodging, Convention and Meeting Planning Transfer (CHLAA) pg. 146		
Small Business in Hospitality (CHBAO) pg. 146		
Horticulture (HOAAS/HORC1/HORSD) pg. 148/151/152	Associate Degree Certificate Specialist Diploma	FOC
Floriculture (HOFLO/HOFSD) pg. 149/152		
Horticulture Management (HONM1) pg. 150		
Landscaping (HOLAO/HOLSD) pg. 149/152		
HEALTH (PAGE 155-165)		
Dental Assisting (DEACE) pg. 156	Certificate	SOC
Nursing – Associate Degree (ASNAS) pg. 159	Associate Degree	SOC
Nursing – Practical (LPNCE) pg. 157	Certificate	SOC
Professional Health Studies (PHSAS) pg. 160	Associate Degree Certificate	SOC
EMT – Paramedic Certificate (PHSPC) pg. 163		
Respiratory Care Technology (RTAAS) pg. 164	Associate Degree	SOC
INDUSTRIAL/TECHNICAL (PAGE 166-220)		
Air Conditioning, Refrigeration and Heating Technology (AHAAS/AHRCE) pg. 167/168	Associate Degree Certificate Specialist Diploma	EVC
Apprentice Related Technology (ARAAS) Electrical (AREAO) pg. 195 Plumbing (ARPAO) pg. 210	Associate Degree	SOC
Architectural Design Technology (ADAS1/AAISD) pg. 171/172	Associate Degree Specialist Diploma	EVC
Auto Collision Technology (ABAS1/ABTC1) pg. 173/174	Associate Degree Certificate Specialist Diploma	ATC
Automotive Technology (AUAAS) pg. 175	Associate Degree Certificate Specialist Diploma	SOC
Automotive Technology — Basic Automotive Services (AUTCE) pg. 176		
CDL-A Truck Driving (CDLSD) pg. 194	Specialist Diploma	ATC
Civil Engineering Technology (CEAAS/CETCE) pg. 178/179	Associate Degree Certificate Specialist Diploma	EVC

Metropolitan Community College Programs by Department		
ACADEMIC PROGRAM (MAJOR CODE)	**AWARDS OFFERED**	**LOCATIONS OFFERED**
Construction Technology (CSAAS) pg. 180	Associate Degree Specialist Diploma	ATC, SOC
Commercial Construction (CSCCO) pg. 182		
Concrete/Masonry Construction (CSMCO) pg. 181		
Concrete and Masonry Specialist (CSMCE) pg. 187	Certificate	ATC, SOC
Construction Management (CSCMO) pg. 183	Associate Degree Specialist Diploma	ATC, SOC
Framing and Finishing Specialist (CSFCE) pg. 188	Certificate	ATC, SOC
General Construction/Remodeling (CSGCO) pg. 184	Associate Degree Specialist Diploma	ATC, SOC
Residential Carpentry (CSRCO) pg. 185		
Residential Finish Carpentry/Cabinetry (CSRFO) pg. 186		
Diesel Technology (DTAAS) pg. 191	Associate Degree Specialist Diploma	ATC
Diesel Service (DTDSO) pg. 192		
Heavy Equipment (DTHEO) pg. 192		
Power Generation (DTPGO) pg. 193		
Electrical Technology (ETAAS/ETECE) pg. 196	Associate Degree Certificate Specialist Diploma	SOC
Building Electrical (ETBCE) pg. 197		
Industrial Electrical (ETICE) pg. 197		
Industrial and Commercial Trades (IMAS1) pg. 199	Associate Degree Specialist Diploma	SOC
Electrical/Mechanical Trades (IMEM1) pg. 201		
Home Building Maintenance (IMCB2) pg. 200		
Industrial Distribution (IMIDO) pg. 203		
Precision Machine Technology (IMPM1) pg. 202		
Mechanical Design Technology (DRAS1/DRTC1) pg. 207/208	Associate Degree Certificate Specialist Diploma	FOC
Utility Line Technician (UTAAS) pg. 211	Associate Degree	ATC
Welding Technology (WEAAS/WELCE) pg. 213/215	Associate Degree Certificate Specialist Diploma	SOC
Manufacturing (WELMO) pg. 217		
Pipe (WELPO) pg. 218		
Structural (WELSO) pg. 216		
PUBLIC SERVICE (PAGE 221-240)		
American Sign Language-Pre-Interpreter (SLICE) pg. 240	Certificate	FOC
Criminal Justice (CJAAS) pg. 222	Associate Degree Specialist Diploma	SOC, online
Corrections (CJCNO/CJCSD) pg. 223		
Generalist (CJGNO) pg. 223		
Homeland Security (CJHSO) pg. 224		
Law Enforcement (CJLEO) pg. 224		
Network Security and Computer Forensics (CJNSO) pg. 225		
Private Security (CJPSO) pg. 225		
Early Childhood Educator (ECAS1) pg. 227	Associate Degree Certificate Specialist Diploma	FOC, online
Early Childhood Educator – Assistant (ECTC1) pg. 229		
Fire Science Technology (FSAAS) pg. 232	Associate Degree	SOC

Metropolitan Community College Programs by Department		
ACADEMIC PROGRAM (MAJOR CODE)	**AWARDS OFFERED**	**LOCATIONS OFFERED**
Human Services (HSAAS/HSGCE) pg. 233/235	Associate Degree Certificate	FOC
Human Services – Chemical Dependency Counseling (CDAAS/ CDCCE) pg. 236/239	Associate Degree Certificate	FOC
TRANSFER PROGRAMS (PAGE 241-256)		
Liberal Arts/Academic Transfer [Associate in Arts] (LATAA) pg. 247	Associate Degree	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer [Associate in Science] (LATAS) pg. 252	Associate Degree	EVC, FOC, SOC
Liberal Arts/Academic Transfer – Humanities/Social Sciences (LHSCE) pg. 249	Certificate	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer – Math/Science (LMSCE) pg. 254	Certificate	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer – Spanish (LTSAA) pg. 250	Associate Degree	EVC, FOC, SOC,
General Studies (GSAAS) pg. 255	Associate Degree	EVC, FOC, SOC
Professional Skills Specialist Diploma (PSKSD) pg. 256	Specialist Diploma	EVC, FOC, SOC

Program Location Codes: EVC – Elkhorn Valley Campus, FOC – Fort Omaha Campus, SOC – South Omaha Campus, ATC – Applied Technology Center, FRC – Fremont Area Center, SRP – Sarpy Center

The majority of courses for the programs listed may be taken at the campus listed. It may be necessary to complete some courses at another campus or at off-campus locations. *Not all courses are offered every quarter.*

ARTS

DEGREES IN THIS SECTION:

- Art
- Electronic Imaging and Media Arts
- Graphic Communication Arts and Design
- Interior Design
- Photography
- Theatre
- Video/Audio Communication Arts

OTHER RELATED DEGREES:

- Microcomputer Technology – Web Support Specialist

  (see Computing/Electronics Careers)
- Liberal Arts/Academic Transfer – Associate in Arts – Art Education

  (see Transfer Programs)

ART (ARTAA)

Award: Associate in Arts Degree
Program location: Elkhorn Valley Campus

The Art Program combines the acquisition of traditional art skills learned through conceptual and visual experience with electronic technologies. This program prepares the student to enter a four-year fine arts program and currently articulates with the University of Nebraska–Omaha College of Fine Arts and Bellevue University.

Graduation Requirements	
General Education	31.5
Major Requirements	67.5
Total Credit Hours Required	**99.0**

General Education Requirements.....31.5* Credit Hrs.

Communications		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

Humanities/Social Sciences		Credit Hrs.
ARTS 1000	Introduction to the Visual Arts	4.5

Quantitative/Numeracy Skills		Credit Hrs.
MATH 1310	Intermediate Algebra	4.5

Other		Credit Hrs.
HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

*The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Art .....67.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ARTS 2010	Life Drawing	4.5
ARTS 2020	Elementary Painting☞	4.5
ARTS 2030	Elementary Sculpture☞	4.5
EIMA 1100	Raster Image Painting ☞	4.5
Choose 22.5 credit hours from the following Visual Arts courses:		
ARTS 2025	Watercolor	4.5
ARTS 2040	Elementary Printmaking☞	4.5
ARTS 2050	Elementary Ceramics^	4.5
ARTS 2060	Elementary Jewelry	4.5
ARTS 2130	Intermediate Sculpture	4.5
ARTS 2160	Intermediate Jewelry	4.5
ARTS 2220	Art Gallery Management	4.5
ARTS 2900	Special Topics in Art	4.5
EIMA course of choice☞		
GCAD course of choice		
PHOT course of choice☞		

☞ These courses are only at the Elkhorn Valley Campus.

^ This course is at Omaha Clay Works.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

The following page lists a schedule of course offerings for students planning to transfer to a four-year institution after two years of full-time study.

FIRST YEAR					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
ARTS 1010	4.5	Gen. Ed.	4.5	ARTS 1040	4.5
ENGL 1010	4.5	ENGL 1020	4.5	ARTS 1120	4.5
ARTS 1110	4.5	ARTS 1020	4.5	EIMA 1100	4.5
	13.5	ARTS 1030	4.5	INFO 1001	4.5
			18.0		18.0
SECOND YEAR					
Fourth Quarter (Fall)		**Fifth Quarter (Winter)**		**Sixth Quarter (Spring)**	
Gen. Ed.	4.5	Gen. Ed.	9.0	Visual Arts Electives	13.5
ARTS Elective	4.5	ARTS 2020	4.5		13.5
ARTS 2010	4.5	Visual Arts Elective	4.5		
ARTS 2030	4.5		18.0		
	18.0				

ART (ARTCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Art Program combines the acquisition of traditional art skills learned through conceptual and visual experience with electronic technologies. This certificate would serve the needs of students planning to enter a four-year fine arts program and currently articulates with the University of Nebraska–Omaha College of Fine Arts and Bellevue University.

Graduation Requirements	
General Education	13.5
Major Requirements	40.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	ARTS 1000 Introduction to the Visual Arts	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Art .....40.5 Credit Hrs.

Courses		**Credit Hrs.**
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio☞	4.5
ARTS 1110	Art History – Ancient to Gothic OR	
ARTS 1120	Art History – Renaissance to Modern	4.5
ARTS 2020	Elementary Painting☞	4.5
ARTS 2030	Elementary Sculpture☞	4.5
Choose 9 credit hours from the following Visual Arts courses:		
ARTS 2010	Life Drawing	4.5
ARTS 2025	Watercolor	4.5
ARTS 2040	Elementary Printmaking	4.5
ARTS 2050	Elementary Ceramics^	4.5
ARTS 2060	Elementary Jewelry	4.5
ARTS 2130	Intermediate Sculpture	4.5
ARTS 2160	Intermediate Jewelry	4.5
ARTS 2220	Art Gallery Management	4.5

☞These courses are only at the Elkhorn Valley Campus.

^ This course is at Omaha Clay Works.

ELECTRONIC IMAGING AND MEDIA ARTS (EIAS3)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

The Electronic Imaging Program provides a creative environment where students develop high-level computer graphic and problem-solving skills. The curriculum emphasizes a visual and conceptual approach to image construction and manipulation on the computer through a foundation of courses that include art and photography. This core provides a basis for choosing an area of concentration for further study.

Graduation Requirements	
General Education	27.0
Major Requirements	51.0
Concentration Requirements	22.5
Total Credit Hours Required	**100.5**

The program awards a customizable associate of applied science degree. Students may tailor their degree to emphasize 3-D animation, 2-D animation, interactive media and web design or media integration. Courses chosen from Tier II and Tier III allow the student to update professional skills or fashion a customized degree. A student may also work toward a BASA degree through the University of Nebraska–Omaha's College of Fine Arts or Bellevue University by taking any of the electronic imaging components at MCC.

Career opportunities in 2-D and 3-D animation include modeling for game development, motion pictures, television, visualization and special effects. Career opportunities in interactive media and media integration include authoring and scripting, film and video animation, multimedia interface design, CD-ROM title development, game development, instructional design, training, media coordination, corporate communications, marketing and sales.

General Education Requirements ..... 27 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
ENGL 1020 English Composition I	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (See page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Electronic Imaging and Media Arts ..... 51.0 Credit Hrs.

Courses		Credit Hrs.
Tier I – Students must take all courses		
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1110	Art History – Ancient to Gothic OR	
ARTS 1120	Art History – Renaissance to Modern	4.5
EIMA 1100	Raster Image Painting	4.5
EIMA 1110	Vector Image Drawing	4.5
EIMA 1120	Character, Narrative and Storyboard Development	4.5
EIMA 1130	Web Design and Publishing	4.5
EIMA 1140	Drawing for Electronic Media	4.5
EIMA 1310	Introduction to 3-D Modeling and Animation	4.5
EIMA 2410	Projects Development	4.5
PHOT 1210	Digital Photography	6

Continued on next page.

The student interested in an electronic imaging and media arts specialization should consult with faculty advisors or Student Services when planning his/her studies.

EIMA 2410 must be taken as the last class of the program.

Tier II – Select 13.5–22.5 hours from the following:		
ARTS 2010	Life Drawing	4.5
EIMA 1111	History of Animation	4.5
EIMA 1150	Design for Motion Graphics	4.5
EIMA 1210	Flash I	4.5
EIMA 2210	Flash II	4.5
EIMA 1221	Game Design Fundamentals	4.5
EIMA 1230	2-D Animation and Compositing I	4.5
EIMA 1231	2-D Animation and Compositing II	4.5
EIMA 2221	Introduction to 3-D Game Development	4.5
EIMA 2311	3-D Character Development	4.5
EIMA 2321	Intermediate 3-D Modeling and Animation	4.5
EIMA 2330	3-D Animation Lab	4.5
GCAD 1110	Typography I	4.5
Tier III – Select 0–9 credit hours from the following:		
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
ARTS 2020	Elementary Painting	4.5
ARTS 2030	Elementary Sculpture	4.5
EIMA 2120	Electronic Illustration	4.5
EIMA 2900	Special Topics in EIMA	Variable
EIMA 2981	Internship	Variable
GCAD 1120	Layout I	4.5
PHOT 1500	Moving Image Lab	6
PHOT 2210	Intermediate Digital Photography	6
VACA 1020	Audio I	3
VACA 1130	Video I	3
VACA 2220	Digital Media Editing	4.5

It is advisable to take EIMA 1100 or EIMA 1110 before EIMA 1310 or to have computer experience. Geometry is also helpful.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

Below is a schedule of course offerings for the student planning a career in electronic imaging after two years of full-time study.

FIRST YEAR – Core Tier I					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
ARTS 1010	4.5	ARTS 1020	4.5	EIMA 1130	4.5
ARTS 1110 **OR**		EIMA 1310	4.5	EIMA 1120	4.5
ARTS 1120	4.5	EIMA 1112	4.5	PHOT 1210	6.0
EIMA 1100	4.5	Gen. Ed.	4.5	EIMA Tier II Requirement	4.5
EIMA 1110	4.5		18.0		19.5
	18.0				
SECOND YEAR – Option I (choosing to take all courses from Tier II)					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
Gen. Ed.	4.5	Gen. Ed.	4.5	EIMA 2410	4.5
Gen. Ed.	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
EIMA Tier II Requirement	4.5	EIMA Tier II Requirement	4.5		9.0
EIMA Tier II Requirement	4.5	EIMA Tier II Requirement	4.5		
	18.0		18.0		
SECOND YEAR – Option II (choosing to take all additional courses from both Tier II and Tier III)					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
Gen. Ed.	4.5	Gen. Ed.	4.5	EIMA 2410	4.5
Gen. Ed.	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
EIMA Tier II Requirement	4.5	EIMA Tier II Requirement **OR**			9.0
EIMA Tier II Requirement **OR**		Tier III Elective	9.0		
Tier III Elective	4.5		18.0		
	18.0				

GRAPHIC COMMUNICATION ARTS AND DESIGN (GCAS1)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	73.5
Total Credit Hours Required	**100.5**

The Graphic Communication Arts and Design Program provides the student with creative problem-solving skills in the communication of visual ideas. Interdisciplinary courses in fine art provide the necessary foundation for the Graphic Communication Arts and Design Program. The graduate is prepared for employment as a graphic designer in advertising agencies, design studios, in-house design departments and printing establishments. This program articulates with the University of Nebraska–Omaha College of Fine Arts and Bellevue University.

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics** (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

**MATH 1220 is suggested unless transferring to a four-year institution.

Major Requirements for Graphic Communication Arts ..... 73.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
GCAD 1010	Creativity: Concept Development	4.5
GCAD 1020	Introduction to Computer Methods	4.5
GCAD 1110	Typography I	4.5
GCAD 1120	Layout I	4.5
GCAD 1210	History of Graphic Design	4.5
GCAD 1520	Desktop Publishing Basics – InDesign	4.5
GCAD 2050	Package Design	4.5
GCAD 2060	Illustration	4.5
GCAD 2120	Layout II	4.5
GCAD 2210	Graphic Design I	4.5
GCAD 2220	Graphic Design II	4.5
GCAD 2230	Graphic Design III	6
Work in advance with an instructor to choose one of the following:		
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
GCAD 1500	Print Overview	4.5
GCAD 2110	Typography II	4.5
GCAD 2981	Internship	4.5
INFO 1311	XHTML and CSS ◈	4.5

◈ Additional prerequisite(s) may be required.

The student should work with faculty to determine which elective best meets his/her career goals.

GCAD students may waive INFO 1311 prerequisites. Speak with an advisor for registration.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

ARTS

Below is the suggested sequence of classes for full-time students working towards a degree in Graphic Communication Arts and Design (GCAS1).

FIRST YEAR					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
ARTS 1010	4.5	ARTS 1020	4.5	Gen. Ed.	4.5
INFO 1001	4.5	GCAD 1110	4.5	ARTS 1120	4.5
GCAD 1010	4.5	GCAD 1520	4.5	GCAD 1120	4.5
GCAD 1020	4.5	HMRL 1010	4.5	GCAD 1210	4.5
	18.0		18.0		18.0
SECOND YEAR					
Fourth Quarter (Fall)		**Fifth Quarter (Winter)**		**Sixth Quarter (Spring)**	
Gen. Ed.	4.5	Gen. Ed.	4.5	Elective	4.5
Gen. Ed.	4.5	GCAD 2050	4.5	GCAD 2060	4.5
GCAD 2120	4.5	GCAD 2220	4.5	GCAD 2230	6.0
GCAD 2210	4.5		13.5		15.0
	18.0				

INTERIOR DESIGN (IDAS1)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

Graduation Requirements	
General Education	27.0
Major Requirements	80.5
Total Credit Hours Required	**107.5**

The Interior Design Program provides the student with aesthetic design knowledge and skills and a practical knowledge of retail and business procedures in the area of interior product and services. Job opportunities include positions as interior design assistants and consultants and sales personnel for local interior product retailers and vendors.

All INTD prefix courses, with the exception of INTD 2981, transfer to the University of Nebraska–Kearney's Interior Design Program. Ask an Academic Advisor for details.

General Education Requirements..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	ARTS 1000 Introduction to the Visual Arts	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1260 Geometry **OR**	4.5	INFO 1001 Information Systems and Literacy	4.5
Any higher level Math course			

Major Requirements for Interior Design Assistant.....80.5 Credit Hrs.

Courses		Credit Hrs.
INTD 1100	Illustration Techniques for Interiors	3
INTD 1210	Interior Design I	4.5
INTD 1220	Interior Design II	4.5
INTD 1230	Interior Design III	3
INTD 1260	Color Theory	4.5
INTD 1310	Fundamentals of Textiles	4.5
INTD 1320	Interior Finishes and Materials	4.5
INTD 1410	History of Architecture and Interiors	4.5
INTD 1420	History of Furniture	4.5
INTD 2100	Room Rendering	4.5
INTD 2250	Commercial Design	4
INTD 2520	Professional Practice	3
INTD 2940	Interior Design IV	4.5
INTD 2981	Internship★	3
Choose 24 credit hours from the following related disciplines:		
ACCT 1050	Bookkeeping **OR**	
ACCT 1100	Accounting I	3–4
ARCH 1100	Beginning AutoCAD (highly recommended)	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
INTD 2900	Special Topics in Interior Design	Variable
BSAD 1000	Introduction to Business **OR**	
ENTR 1050	Introduction to Entrepreneurship	4.5
BSAD 1200	Principles of Selling	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneurship	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5

★ To register for Internship, students must contact the Interior Design instructor and have completed a minimum of 30 hours in the Interior Design Program.

ARTS

Below is a suggested guide for the student planning employment in the interior design field after two years of full-time study.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
INTD 1100	3.0	English Level I	4.5	English Level II	4.5
INTD 1210	4.5	INTD 1220	4.5	INTD 1230	3.0
INTD 1310	4.5	INTD 1320	4.5	INTD 1260	4.5
MATH 1220, MATH 1260 **OR**		INFO 1001	4.5	Related discipline	4.5
Any higher level Math course	4.5		18.0		16.5
	16.5				
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
INTD 1410	4.5	HMRL 1010	4.5	INTD 2520	3.0
INTD 2100	4.5	INTD 1420	4.5	INTD 2940	4.5
Related disciplines	9.0	INTD 2250	4.0	INTD 2981	3.0
	18.0	Related discipline	4.5	Related disciplines	6.0
			17.5	Humanities/ Social Sciences Elective	4.5
					21.0

INTERIOR DESIGN ENTREPRENEURSHIP (IENCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

This certificate is designed for the practicing design professional who is interested in becoming self-employed.

Graduation Requirements	
General Education	13.5
Major Requirements	37.0–38.5
Total Credit Hours Required	**50.0–52.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	ARTS 1000 Introduction to the Visual Arts	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH Elective (see page 40)	4.5		

Major Requirements for Interior Design Entrepreneurship .37.0–38.5 Credit Hrs.

Courses		**Credit Hrs.**
INTD 1230	Interior Design III ◇	3
INTD 2100	Room Rendering ◇	4.5
INTD 2250	Commercial Design ◇	4
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
Choose three courses from the following list:		
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
INTD 2520	Professional Practice ◇	3

◇ Additional prerequisite(s) may be required.

PHOTOGRAPHY – GENERAL COMMERCIAL (PTAS2)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

Graduation Requirements	
General Education	27.0
Major Requirements	76.5
Total Credit Hours Required	**103.5**

The student in the Commercial Photography Program learns to solve photographic problems through the skillful use of camera, lighting, laboratory and electronic techniques. Included in the program are experiences in commercial, general and digital photography. The graduate of this program should be adaptable to the following employment situations: commercial or portrait studio, industrial photo unit, hospital or research laboratory, news photography for a newspaper or television station, photo-finishing laboratory or digital imaging services, manufacturer's technical representative or retail photo sales. This program transfer to the University of Nebraska–Omaha College of Fine Arts and Bellevue University

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

ARTS

Major Requirements for Photography – General Commercial ..... 76.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
PHOT 1110	Basic Photography	6
PHOT 1120	Intermediate Photography	6
PHOT 1130	Photographic Concepts	6
PHOT 1140	Large Format Photography	6
PHOT 1210	Digital Photography	6
PHOT 1310	Color Photography	6
PHOT 1400	Photographic Lighting	6
PHOT 2130	Intermediate Photographic Concepts	6
PHOT 2180	Portfolio Development and Professional Practice	6
PHOT 2210	Intermediate Digital Photography	6
Choose 12 credit hours from the following courses:		
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
PHOT 1500	Moving Image Lab	6
PHOT 2150	Photojournalism	6
PHOT 2170	Experimental Photography	6
PHOT 2211	Advanced Digital Photography	6
PHOT 2270	Advanced Experimental Photography	6
PHOT 2410	Advanced Photographic Lighting	6
PHOT 2900	Special Topics in Photography	Variable
PHOT 2981	Internship	Variable
VACA 1130	Video I	3
VACA 2130	Video II ◇	3

◇Additional prerequisite(s) may be required.

The student should work with faculty to select courses from the lower list that meet his/her career goals.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

PHOTOGRAPHY – GENERAL STILL (PTYC1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Still Photography Certificate provides the student with basic skills in traditional and digital photographic processes. The student earning a certificate may seek employment as a studio assistant, laboratory technician or associate with retail or production organizations in the photographic industry.

Graduation Requirements	
General Education	13.5
Major Requirements	34.5
Total Credit Hours Required	**48.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Photography .....34.5 Credit Hrs.

Courses		**Credit Hrs.**
ARTS 1010	Drawing and 2-D Design I	4.5
PHOT 1110	Basic Photography	6
PHOT 1120	Intermediate Photography	6
PHOT 1140	Large Format Photography	6
PHOT 1210	Digital Photography	6
Choose 6 credit hours from the following courses:		
PHOT 1310	Color Photography	6
PHOT 1500	Moving Image Lab	6
PHOT 2150	Photojournalism	6
PHOT 2210	Intermediate Digital Photography	6
PHOT 2900	Special Topics in Photography	Variable
VACA 1130	Video I	3
VACA 2130	Video II ◇	3

◇ Additional prerequisite(s) may be required.

The student should work with faculty to select courses from the list that meet his/her career goals.

PHOTOGRAPHY – DIGITAL (PTDCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

This certificate is designed to give students a foundation in digital photography techniques as well as an exposure to a variety of software for the creation and manipulation of digital images.

Graduation Requirements	
General Education	18.0
Major Requirements	33.0
Total Credit Hours Required	**51.0**

General Education Requirements ..... 18.0 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	
MATH 1240 Applied Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5

Major Requirements for Photography – Digital .....33.0 Credit Hrs.

Courses		**Credit Hrs.**
EIMA 1100	Raster Image Painting	4.5
GCAD 1020	Introduction to Computer Methods	4.5
PHOT 1210	Digital Photography	6
PHOT 1500	Moving Image Lab	6
PHOT 2210	Intermediate Digital Photography	6
PHOT 2211	Advanced Digital Photography	6

THEATRE (THEAA)

Award: Associate in Arts
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	31.5
Major Requirements	68.5
Total Credit Hours Required	**100.0**

The Theatre Program trains students in the history, performance, production and cultural importance of theatre. Theatre—a blend of visual arts/design, music, literature, research, physical expression, technology and business—is the quintessential liberal arts degree. Theatre studies strengthen interpersonal communication and public presentation skills, develop critical thinking and collaborative skills and also give a solid background in interdisciplinary arts, social awareness and appreciation of diverse cultures. Students who successfully complete this degree can go on to a baccalaureate institution to major in theatre, speech/communications, film/digital media or related humanities or education fields.

General Education Requirements ..... 31.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
ENGL 1020 English Composition II	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Theatre .....68.5 Credit Hrs.

Courses		Credit Hrs.
THEA 1000	Introduction to Theatre	4.5
THEA 1110	Theatre Technology I	4
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2021	Fundamentals of Acting II	4.5
THEA 2030	Playwriting I	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2480	Introduction to Dramatic Literature I	4.5
THEA 2481	Introduction to Dramatic Literature II	4.5
Select 9 credit hours from the following:		
THEA 1120	Theatre Technology II	4
THEA 1130	Theatre Technology III	4
THEA 2040	Movement for the Actor	4.5
THEA 2050	Voice for the Actor	4.5
THEA 2150	Stage Rigging	4.5
THEA 2160	Principles of Stage Lighting	4.5
THEA 2170	Stage Management	4.5
THEA 2200	Arts Administration	4.5
THEA 2900 **OR**		
THEA 2901 **OR**		
THEA 2920		Variable
Select 15 credit hours from the following:		
ENGL course of choice		4.5
HUMS course of choice		4.5
MUSC course of choice		4.5
PHIL course of choice		4.5
SPCH course of choice		4.5

THEATRE – PLAYWRITING (THEPC)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Playwriting Certificate provides students with basic skills in playwriting. Playwrights may seek commissions or play submission opportunities (workshop or full production), or they may produce their work independently.

Graduation Requirements	
General Education	18.0
Major Requirements	36.0
Total Credit Hours Required	**54.0**

General Education Requirements ..... 18.0 Credit Hrs.

Communications	Credit Hrs.	Humanities	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences Elective (See page 40)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
Math Elective (See page 40)	4.5		

Major Requirements for Playwriting. .....36.0 Credit Hrs.

Courses		Credit Hrs.
ENGL 1310	Creative Writing	4.5
ENGL 2480	Introduction to Dramatic Literature I **OR**	
THEA 2480	Introduction to Dramatic Literature I **OR**	
ENGL 2481	Introduction to Dramatic Literature II **OR**	
THEA 2481	Introduction to Dramatic Literature II	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2030	Playwriting I	4.5
THEA 2031	Playwriting II	4.5

THEATRE – THEATRE TECHNOLOGY (THETC)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Theatre Technology Certificate allows students to gain necessary skills to work behind-the-scenes in theatre doing costuming, scenery, lighting or sound. Students accepted into the Theatre Technology Apprenticeship Program* are expected to spend at least 15 hours per week in training.

Graduation Requirements	
General Education	13.5
Major Requirements	40.5
Total Credit Hours Required	**54.0**

*The Theatre Technology Apprenticeship Program is a two-year program run in conjunction with the Omaha Community Playhouse. In order to satisfy the 1500-hour requirement to receive the Theatre Technology Apprenticeship Program Certificate from the U.S. Department of Labor, students are required to complete an additional 12 credit hours of cooperative study courses (THEA 2983–2986) beyond the MCC Certificate of Achievement.

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (See page 40)	4.5	Math Level I (See page 40)	4.5
Humanities	**Credit Hrs.**		
Humanities (See page 40)	4.5		

Major Requirements for Theatre Technology .....40.5 Credit Hrs.

Courses		Credit Hrs.
THEA 1110	Theatre Technology I	4
THEA 1120	Theatre Technology II	4
THEA 1130	Theatre Technology III	4
THEA 2010	Script Analysis	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2150	Stage Rigging **OR**	
THEA 2900	Special Topics: Properties and Costumes	4.5
THEA 2160	Principles of Stage Lighting	4.5
THEA 2981	Cooperative Study I	3
THEA 2982	Cooperative Study II	3

THEATRE — SPECIALIST DIPLOMAS

Award: Specialist Diploma
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Playwriting (THEPD)

The Playwriting Specialist Diploma is designed for students who want to develop and enhance their playwriting skills.

Requirements for Playwriting Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 2480	Introduction to Dramatic Literature I **OR**	
THEA 2480	Introduction to Dramatic Literature I **OR**	
ENGL 2481	Introduction to Dramatic Literature II **OR**	
THEA 2481	Introduction to Dramatic Literature II	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2030	Playwriting I	4.5
THEA 2031	Playwriting II	4.5

Theatre Technology (THETD)

Award: Specialists Diploma
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Theatre Technology Specialist Diploma prepares students to participate in the backstage technical aspects of theatre production.

Requirements for Theatre Technology Diploma.....25.5 Credit Hrs.

Courses		Credit Hrs.
THEA 1110	Theatre Technology I	4
THEA 1120	Theatre Technology I	4
THEA 1130	Theatre Technology III	4
THEA 2010	Script Analysis	4.5
THEA 2981	Cooperative Study I	3
THEA 2982	Cooperative Study II	3
THEA 2983	Cooperative Study III	3

VIDEO/AUDIO COMMUNICATIONS ARTS (VAAAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

Graduation Requirements	
General Education	27.0
Major Requirements	70.5
Total Credit Hours Required	**97.5**

The Video/Audio Communications Arts Program provides the student with a background in various aspects of video and audio production and post-production. The graduate of this program should be adaptable to the following employment situations: videographer for television, independent producer or in-house production facility, technical representative for manufacturers or reselling. This program transfers to the University of Nebraska–Omaha College of Fine Arts and Bellevue University.

General Education Requirements ..... 27 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Video/Audio Communication Arts ..... 70.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
EIMA 1150	Design for Motion Graphics	4.5
PHOT 1110	Basic Photography	6
PHOT 1210	Digital Photography	6
PHOT 1500	Moving Image Lab	6
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1020	Audio I	3
VACA 1130	Video I	3
VACA 2120	Screenwriting Principles	4.5
VACA 2130	Video II	3
VACA 2131	Video III	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2540	Video Portfolio Development	3
VACA 2940	MetroVision Practicum	3
VACA 2981	Internship	Variable
Choose 9 credit hours from the following courses:		
HUMS 2310	Film History and Appreciation	4.5
EIMA 1120	Character, Narrative and Storyboard Development	4.5
PHOT 2150	Photojournalism	6
PHOT 2210	Intermediate Digital Photography	6
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2020	Audio II	4.5
VACA 2110	Media Scriptwriting	4.5
VACA 2230	Video Post-Production	4.5
VACA 2900	Special Topics in Photography	Variable

The student should work with faculty to select courses from the list that meet his/her career goals.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

ARTS

VIDEO/AUDIO (VACCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Video/Audio Photography Certificate provides the student with basic skills in linear and non-linear video production. The student earning a certificate may seek employment as a videographer, editor or other technician in a video business.

Graduation Requirements	
General Education	13.5
Major Requirements	36.0–38.0
Total Credit Hours Required	**49.5–51.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Video/Audio .....36.0–38.0 Credit Hrs.

Courses		Credit Hrs.
PHOT 1500	Moving Image Lab	6
VACA 1130	Video I	3
VACA 2120	Screenwriting Principles	4.5
VACA 2130	Video II	3
VACA 2131	Video III	4.5
VACA 2220	Digital Media Editing	4.5
Choose 10.5–12.5 credit hours from the following courses:		
EIMA 1120	Character, Narrative and Storyboard Development	4.5
EIMA 1150	Design for Motion Graphics	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1020	Audio I	3
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2020	Audio II	4.5
VACA 2110	Media Scriptwriting	4.5
VACA 2540	Video Portfolio Developmen◇	3
VACA 2900	Special Topics in Photography	Variable
VACA 2940	MetroVision Practicum	3
VACA 2981	Internship	Variable

The student should work with faculty to select courses from the list that meet his/her career goals.

◇Additional prerequisite(s) may be required.

SOUND RECORDING (VSRCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Sound Recording Certificate provides the student with basic professional skills to work in the audio recording field. The student earning a certificate may seek employment in entry-level recording environments, including live music performance, sound for television and film and the sound recording studio.

Graduation Requirements	
General Education	13.5
Major Requirements	36.0–38.0
Total Credit Hours Required	**49.5–51.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Sound Recording .....36.0–38.0 Credit Hrs.

Courses		**Credit Hrs.**
PHOT 1500	Moving Image Lab	6
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1020	Audio I	3
VACA 1110	Introduction to Scriptwriting	4.5
VACA 1130	Video I	3
VACA 2020	Audio II	4.5
VACA 2030	Audio III	4.5
VACA 2050	Pro-Tools	4.5
VACA 2130	Video II	3
VACA 2981	Internship	Variable

DIGITAL CINEMA (VDCCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Digital Cinema Certificate provides the student with basic skills in using tools in digital film production. The student may seek employment in entry-level production environments, freelance positions or as independent filmmakers.

Graduation Requirements	
General Education	13.5
Major Requirements	40.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	HUMS 2310 Film History and Appreciation	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Video/Audio Digital Cinema 40.5 Credit Hrs.

Courses		Credit Hrs.
PHOT 1500	Moving Image Lab	6
VACA 1020	Audio I	3
VACA 1110	Introduction to Scriptwriting	4.5
VACA 1130	Video I	3
VACA 2130	Video II	3
VACA 2120	Principles of Screenwriting	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2940	MetroVision Practicum	3
Choose 9 credit hours from the following courses:		
EIMA 1120	Character, Narrative and Storyboard Development	4.5
EMIA 1150	Design for Motion Graphics	4.5
EIMA 1310	3-D Modeling and Animation	4.5
PHOT 1110	Basic Photography	6
PHOT 1210	Digital Photography	6
THEA 2020	Fundamentals of Acting	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 2020	Audio II	4.5
VACA 2050	Pro-Tools	4.5
VACA 2110	Media Scriptwriting	4.5
VACA 2131	Video III	4.5
VACA 2540	Video Portfolio Development	3
VACA 2900	Special Topics in Video/Audio Communications	Variable

VIDEO/AUDIO COMMUNICATIONS – Screenwriting (VACSE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Screenwriting certificate provides students with an in-depth opportunity to learn writing for the screen in traditional media, short and feature film and new media. The student may seek employment in the production industry as a commercial screenwriter, corporate/industrial screenwriter or as an independent screenwriter.

Graduation Requirements	
General Education	18.0
Major Requirements	36.0
Total Credit Hours Required	**54.0**

General Education Requirements ..... 18.0 Credit Hrs.

Communications		Credit Hrs.	Humanities	Credit Hrs.
ENGL 1010	English Composition I	4.5	Humanities Elective (See page 40)	4.5
ENGL 1020	English Composition II	4.5		
Quantitative/Numeracy Skills		**Credit Hrs.**		
Math Elective (See page 40)		4.5		

Major Requirements for Screenwriting .....36.0 Credit Hrs.

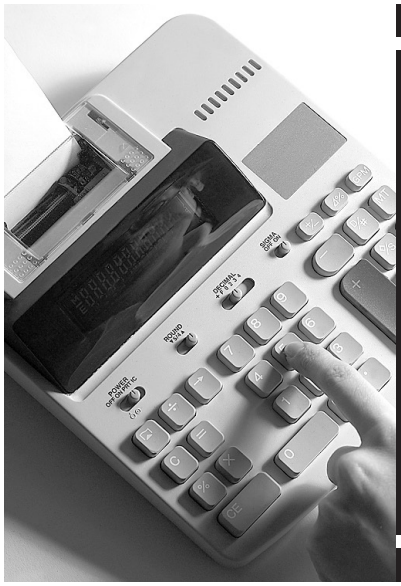
Courses		Credit Hrs.
ENGL 1310	Creative Writing	4.5
ENGL 2480	Introduction to Dramatic Literature I	4.5
HUMS 2310	Film History and Appreciation	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2110	Media Scriptwriting	4.5
VACA 2900	Screenwriting Principles	4.5

VIDEO/AUDIO – Specialist Diploma Screenwriting (VACSD)

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Requirements for Screenwriting Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 2480	Introduction to Dramatic Literature I	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2110	Media Scriptwriting	4.5



BUSINESS/ OFFICE

DEGREES IN THIS SECTION:

- Accounting
- Bookkeeping
- Business Management
- Business Transfer
- Health Information Management Systems
- Legal Studies
- Medical Office
- Microcomputer Office Technology
- Office Technology

OTHER RELATED DEGREES:

- Construction Technology – *Construction Management (see Industrial/Technical)*
- Horticulture – Nursery Management *(see Culinary/Horticulture)*
- Legal Assistant *(see Public Service)*
- General Studies – Pre-Health Related Business *(see Transfer Programs)*

ACCOUNTING (ACAAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Accounting curriculum aids the student in developing skills, knowledge and aptitudes necessary to seek employment in paraprofessional accounting positions. A broad range of accounting, business topics and applications is encompassed.

Graduation Requirements
General Education.....27.0
Major Requirements.....72.5–74.0

Total Credit Hours Required....99.5–101.0

Since the core courses for the Accounting and Business Management degrees are interchangeable, the student can easily change his/her degree of choice during the first year of courses.

General Education Requirements..... 27.0 Credit Hrs.

Communications	Credit Hrs.
English Level I (see page 40)	4.5
English Level II (see page 40)	4.5

Quantitative/Numeracy Skills	Credit Hrs.
MATH 1410 Statistics ◇	4.5

Other	Credit Hrs.
HMRL 1010 Human Relations Skills	4.5
INFO 1001 Information Systems and Literacy	4.5

Humanities/Social Sciences		Credit Hrs.
Select one of the following:		
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2530	Ethnic Literature	4.5
ENGL 2610	British Literature I	4.5
ENGL 2620	British Literature II	4.5
GEOG 1050	Introduction to Human Geography	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1110	World Civilization to 1500	4.5
HIST 1120	World Civilization 1500 to Present	4.5
HIST 2050	Modern Europe Since 1815	4.5
HUMS 1000	The Art of Being Human	4.5
MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 2030	Introduction to Ethics	4.5
PSYC 1010	Introduction. to Psychology	4.5
SOCI 1010	Introduction. to Sociology	4.5
SOCI 1250	Introduction. to Anthropology	4.5
SOCI 2060	Multicultural Issues	4.5
THEA 1000	Introduction. to the Theatre	4.5

◇ Additional prerequisites may be required.

It is highly recommended that students select PHIL 2030 to fulfill the social science/ humanities requirement.

Major Requirements for Accounting.....72.5–74.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I	4
ACCT 1110	Accounting II	4
ACCT 1120	Accounting III	4
ACCT 2120	Intermediate Accounting I	4
ACCT 2130	Intermediate Accounting II	4
ACCT 2140	Intermediate Accounting III	4
ACCT 2230	Microcomputer Business Applications	4
ACCT 2330	Managerial Cost Accounting	4
ACCT 2940	Business Plan Capstone	1.5
BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 1100	Business Law I	4.5
BSAD 1110	Business Law II	4.5
BSAD 2100	Principles of Management	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
FINA 2230	Business Finance ☞ ◈	4.5
Select one of the following courses:		
ACCT 1060	Payroll Accounting	3
ACCT 1070	Individual Income Tax Accounting	4
ACCT 1210	Accounting with QuickBooks	3
ACCT 2981	Internship	3–4.5
FINA 1200	Wealth-Building Fundamentals	4.5
INFO 1212	Spreadsheet I	4.5

ACCT 2120 is offered only in the Fall; ACCT 2130 is offered only in the Winter; ACCT 2140 is offered only in the Spring.

ACCT 1110 is the prerequisite to enroll in ACCT 2120.

ACCT 2120 can be taken concurrently with ACCT 1120.

☞ It pays to be prepared: it is strongly recommended that students complete math requirements early in the program of study.

◈ Additional prerequisite(s) may be required.
☞ Taking FINA 2230 immediately after completing accounting courses is suggested.

Below is a suggested guide for a student planning to complete the Associates Degree in Accounting after two years of full-time study. Students should contact an advisor for assistance.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
ACCT 1100	4.0	ACCT 1110	4.0	ACCT 1120	4.0
ENGL 1010 or 1230	4.5	ENGL 1020 or 1240	4.5	BSAD 1010	4.5
INFO 1001	4.5	HMRL 1010	4.5	ECON 1100	4.5
MATH prerequisite		ECON 1000	4.5	Humanities/Social Sciences	4.5
BSAD 1000	4.5		17.5		17.5
	17.5				

SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
ACCT 2120 (offered Fall only)	4.0	ACCT 2130 (offered Winter only)	4.0	ACCT 2140 (offered Spring only)	4.0
BSAD 1100	4.5	BSAD 1110	4.5	FINA 2230	4.5
ACCT 2230	4.0	ACCT 2330	4.0	ACCT 2940	1.5
BSAD 2100	4.5	MATH 1410	4.5	Elective requirement	3–4.5
	17.0		17.0		13.0–14.5

BOOKKEEPING (BKPCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Bookkeeping curriculum provides career preparation in bookkeeping processes. The graduate may seek employment as a bookkeeper in business, industry or government agencies.

Graduation Requirements	
General Education	22.5
Major Requirements	31.0-32.0
Total Credit Hours Required	**53.5-54.5**

General Education Requirements.....22.5* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	ECON 1000 Macroeconomics	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Bookkeeping.....31.0–32.0 Credit Hrs.

Courses		Credit Hrs.
Take one of the following groups of courses:		
ACCT 1050	Bookkeeping **AND**	
ACCT 1100	Accounting I	
OR		
ACCT 1100	Accounting I **AND**	
ACCT 1110	Accounting II	7–8
ACCT 1060	Payroll Accounting	3
ACCT 1210	Accounting with QuickBooks	3
BSAD 1000	Introduction to Business	4.5
FINA 1200	Wealth-Building Fundamentals	4.5
INFO 1012	Electronic Filing and Calculating	4.5
Choose one course from the following:		4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2600	Human Resources Management	4.5
INFO 1212	Spreadsheet I	4.5

The student interested in a business degree/ certificate should consult with faculty or an academic advisor when planning a course of study.

The Business Program at MCC is accredited by the Association of Collegiate Business Schools and Programs (ACBSP), an accrediting organization for institutions that support and have their emphasis directed towards excellence in teaching.

BUSINESS MANAGEMENT

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

Since the core courses for the Accounting and Business Management degrees are interchangeable, the student can easily change his/her degree of choice during the first year of courses.

Graduation Requirements	
General Education	26.5–27.0
Major Requirements	49.5
Course Track Offerings	22.5–31.5
Total Credit Hours Required	**98.5–108.0**

General Education Requirements ..... 26.5–27.0 Credit Hrs.

Communications			**Credit Hrs.**
English Level I (see page 40)			4.5
English Level II (see page 40)			4.5
Quantitative/Numeracy Skills			**Credit Hrs.**
MATH	1410	Statistics ◈	4.5
Other			**Credit Hrs.**
HMRL	1010	Human Relations Skills	4.5
INFO	1001	Information Systems and Literacy **OR**	
ACCT	2230	Microcomputer Business Applications	4–4.5

Humanities/Social Sciences			**Credit Hrs.**
Select one of the following:			
ARTS	1110	Art History – Ancient to Gothic	4.5
ARTS	1120	Art History – Renaissance to Modern	4.5
ENGL	2470	Introduction to Women's Literature	4.5
ENGL	2530	Ethnic Literature	4.5
ENGL	2610	British Literature I	4.5
ENGL	2620	British Literature II	4.5
GEOG	1050	Introduction to Human Geography	4.5
HIST	1050	Introduction to Black History	4.5
HIST	1110	World Civilization to 1500	4.5
HIST	1120	World Civilization 1500 to Present	4.5
HIST	2050	Modern Europe Since 1815	4.5
HUMS	1000	The Art of Being Human	4.5
MUSC	1010	Introduction to Music I	4.5
MUSC	1020	Introduction to Music II	4.5
PHIL	2030	Introduction to Ethics	4.5
PHIL	2200	Introduction. to Comparative Religion	4.5
PSYC	1010	Introduction to Psychology	4.5
SOCI	1010	Introduction to Sociology	4.5
SOCI	1250	Introduction to Anthropology	4.5
SOCI	2060	Multicultural Issues	4.5
THEA	1000	Introduction to the Theatre	4.5

◈ Additional prerequisite(s) may be required.

Major Requirements for Business Management ..... 49.5 credit hours

Courses			**Credit Hrs.**
ACCT	1100	Accounting I	4
ACCT	1110	Accounting II	4
ACCT	1120	Accounting III	4
BSAD	1000	Introduction to Business	4.5
BSAD	1010	Principles of Marketing	4.5
BSAD	1100	Business Law I	4.5
BSAD	1110	Business Law II	4.5
BSAD	2100	Principles of Management	4.5
BSAD	2940	Business Plan Capstone	1.5
ECON	1000	Macroeconomics	4.5
ECON	1100	Microeconomics	4.5
FINA	2230	Business Finance	4.5

Requirements for Business Management Course Track Offerings ..... 22.5–31.5 credit hours

In pursuing the Business Management degree, students may select from the menu of course track offerings listed below. See the following pages for the specific additional courses required within each course track.

Credit Management 25.5 credit hours	**Entrepreneurship** 27 credit hours	**Financial Planning and Investment** 31.5 credit hours
Financial Services Management 22.5 credit hours	**Generalist** 25 credit hours	**Insurance and Risk Management** 27.5 credit hours
International Business 25.5 credit hours	**Merchandising Management** 25.5 credit hours	**Organizational Development** 25.5–27 credit hours
Operations and Supply Chain Management 27 credit hours		

The student interested in a specific business course track should consult with faculty or an academic advisor when planning a course of study.

A certificate in Financial Planning is also available. See page 84. 49.5 credit hours

Business Management Course Track Offerings

Business Management Generalist (BMGEO) 25.0
Prepares students with a general business background.

Electives from ACCT, BSAD, ENTR, FINA^,
INSU and REES 25.0

^FINA 1200 Wealth-Building Fundamentals is recommended.

Credit Management (BMCMO)* 25.5
Prepares students with a background in general business and focuses on the credit management industry.
FINA 2210 Financial Planning Principles 4.5
FINA 2240 Financial Statement Analysis..... 3.0
FINA 2410 Consumer Credit 4.5
FINA 2209 Risk Management and Insurance..... 4.5
LAWS 2325 Bankruptcy, Credit and Collections Law 4.5
Business electives 4.5

Entrepreneurship (BMENO)..... 27.0
Prepares students with a background in small business management to enable them to be successful in starting a new business.

ENTR 1050 Introduction to Entrepreneurship 4.5
ENTR 2040 Entrepreneurship Feasibility Study 4.5
ENTR 2050 Marketing for the Entrepreneur..... 4.5
ENTR 2060 Legal Issues for the Entrepreneur 4.5
ENTR 2070 Financial Topics for the Entrepreneur 4.5
ENTR 2090 Entrepreneurship Business Plan 4.5

Financial Planning and Investment (BMFSO) 31.5
Prepares students with a background in general business and prepares them to seek employment in the financial services industry.

FINA 2200 Investments 4.5
FINA 2209 Risk Management and Insurance..... 4.5
FINA 2210 Financial Planning Principles 4.5
FINA 2310 Income Tax Planning 4.5
FINA 2320 Retirement Planning and Employee Benefits ... 4.5
FINA 2330 Estate Planning 4.5
FINA 2940 Case Analysis in Financial Planning 4.5

Financial Services Management (BMFMO) 22.5
Prepares students with a background in general business and prepares them to seek employment in the financial services industry.

FINA 1310 Introduction to the Financial Services Industry ... 3.0
FINA 2209 Risk Management and Insurance..... 4.5
FINA 2210 Financial Planning Principles..... 4.5
FINA 2220 Asset/Liability Management for
Financial Institutions 3.0
FINA 2240 Financial Statement Analysis..... 3.0
LAWS 2325 Bankruptcy, Credit and Collections Law 4.5

Insurance and Risk Management (BMIMO)..... 27.5
Prepares students with a background in general business and focuses on the insurance industry.

BSAD 1200 Principles of Selling 4.5
FINA 2209 Risk Management and Insurance..... 4.5
INSU 1000 Principles of Health and Life Insurance 4.5
INSU 1100 Principles of Property and Casualty Insurance ... 4.5
INSU 2421 Insurance Law..... 4.5
Business electives 4.5

International Business (BMIBO)..... 25.5
Prepares students with a background in general business and focuses on international trade.

BSAD 2700 Introduction to International Business..... 4.5
BSAD 2710 Import/Export Operations^ **OR**
BSAD 2400 Business Logistics 4.5
BSAD 2720 International Marketing Management 4.5
ECON 2720 International Economics 4.5
FREN 1020 Beginning French II **OR**
GERM 1020 Elementary German II **OR**
JAPN 1020 Beginning Japanese II **OR**
SPAN 1120 Elementary Spanish II 7.5

^Only offered in Winter quarter.

Merchandising Management (BMMMO) 25.5–27
Prepares students with a background in general business and focuses on the merchandising/retail industry.

BSAD 1200 Principles of Selling 4.5
BSAD 1201 Advertising and Sales Promotion..... 4.5
BSAD 1202 Direct Marketing Methods^ 4.5
BSAD 1210 Retailing..... 4.5
Business electives 7.5–9.0

^Only offered in Fall quarter.

Organizational Development (BMODO)..... 25.5–27 Prepares students with a background in general business and focuses on development of management and leadership skills. BSAD 1300 Introduction to Quality Management..... 4.5 BSAD 1600 Principles of Supervision ..... 4.5 BSAD 2600 Human Resources Management..... 4.5 HMRL 1050 Leadership: Training/Skill Development ..... 4.5 Business electives 7.5–9.0	**Operations and Supply Chain Management (BMOSO)..... 27** Prepares the students with a background in general business and focuses on the manufacturing/production sector. BSAD 1300 Introduction to Quality Management..... 4.5 BSAD 1600 Principles of Supervision ..... 4.5 BSAD 2300 Quality Management: Statistical Process Control ..... 4.5 BSAD 2710 Import/Export Operations^ **OR** BSAD 2400 Business Logistics ..... 4.5 BSAD 2410 Purchasing and Materials Management ..... 4.5 BSAD 2420 Production and Operations Management..... 4.5 ^Only offered in Winter quarter.

Business electrives should be selected from ACCT, BSAD, ECON, FINA, ENTR, INSU or REES.

◈ Additional prerequisite(s) may be required

*This program of study is for the person employed or planning employment with businesses or other organizations engaged in the granting of credit to the purchasers of their products or services and in the collection of amounts due. It is operated in conjunction with the National Association of Credit Management (NACM). Completion of specialization requirements and ACCT 1100, ACCT 1110, ACCT 1120, ENGL 1010 or ENGL 1230, BSAD 1100 and BSAD 2100 from the major requirements for Business Management satisfies the educational requirements for the Credit Business Associate (CBA) and Credit Business Fellow (CBF) programs of NACM. Primary program emphasis is on commercial credit administration.

Although the student may complete multiple course tracks within the program, only the major degree is awarded.

Below is a suggested guide for a student planning a career in Business Management after two years of full-time study.

FIRST YEAR		
First Quarter	**Second Quarter**	**Third Quarter**
ACCT 1100 BSAD 1000 English Level I MATH 1410	ACCT 1110 ENGL 1020 or 1240 HMRL 1010 ECON 1000	ACCT 1120 Gen. Ed. ECON 1100 Course track class one
SECOND YEAR		
Fourth Quarter	**Fifth Quarter**	**Sixth Quarter**
INFO 1001 OR ACCT 2230 BSAD 1100 Course track class two Course track class three	BSAD 2100 BSAD 1110 Course track class four Course track class five	FINA 2230 BSAD 1010 FINA 1200 BSAD 2940 Course track class six Extra class recommended

BUSINESS MANAGEMENT – Entrepreneurship (BMECE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Graduation Requirements	
General Education	13.5
Major Requirements	35.5–36.0
Total Credit Hours Required	**49.0–49.5**

The Entrepreneurship Certificate of Achievement is designed to provide the student with knowledge and training needed to become successful in starting a new business. The courses will help students to strategically develop a business plan with associated marketing tactics and financial statements for a new venture.

General Education Requirements..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Other**	**Credit Hrs.**
English Level I (see page 40)	4.5	HMRL1010 Human Relations Skills	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)	4.5		

Major Requirements for Entrepreneurship. .....35.5–36 Credit Hrs.

Courses		**Credit Hrs.**
BSAD 2100	Principles of Management	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
Select 17.5–18 credit hours from the following:		
ACCT 1100	Accounting	4.0
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
INFO 1010	Customer Service Skills	4.5

BUSINESS MANAGEMENT – Insurance and Risk Management (BIRCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center

The Insurance and Risk Management Certificate of Achievement is designed to provide the student with a strong background in insurance and risk management specific to organizations, individuals and businesses. Participants will gain an understanding of how to analyze financial risk and preserve assets via various lines of insurance (life, health, disability, long-term care, homeowners, auto and liability).

Graduation Requirements	
General Education	18.0
Major Requirements	31.5
Total Credit Hours Required	**49.5**

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Other	Credit Hrs.
English Level I (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)^	4.5		
MATH 1410 Statistics	4.5		
^Math 1310 recommended			

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Insurance and Risk Management.....31.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1200	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
FINA 2210	Financial Planning Principles	4.5
FINA 2209	Risk Management and Insurance	4.5
INSU 1000	Principles of Health and Life Insurance	4.5
INSU 1100	Principles of Property and Casualty Insurance	4.5
INSU 2421	Insurance Law	4.5

BUSINESS MANAGEMENT – International Business (BMICE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The skills gained while pursing this certificate will increase the students' technical expertise and employability in the highly competitive global marketplace.

Graduation Requirements	
General Education	18.0
Major Requirements	30.0
Total Credit Hours Required	**48.0**

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL1010 Human Relations Skills	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for International Business.....30.0 Credit Hrs.

Courses		Credit Hrs.
ECON 1000	Macroeconomics	4.5
Select three courses from the following International options:		
BSAD 2700	Introduction to International Business	4.5
BSAD 2710	Import/Export Operations	4.5
BSAD 2720	International Marketing Management	4.5
ECON 2720	International Economics	4.5
Select one course from the following:		7.5
FREN 1010	Beginning French I	7.5
GERM 1010	Elementary German I	7.5
JAPN 1010	Beginning Japanese I	7.5
SPAN 1110	Elementary Spanish I	7.5
Select 4.5 credit hours from ACCT, BSAD, ENTR or FINA courses		

BUSINESS MANAGEMENT – Marketing (BMMCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The program of study in marketing prepares the student for employment as a supervisor in direct sales and related fields.

Graduation Requirements	
General Education	18.0
Major Requirements	31.0
Total Credit Hours Required	**49.0**

General Education Requirements.....18.0* Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Marketing. .....31.0 Credit Hrs.

Courses		**Credit Hrs.**
ACCT 1100	Accounting I	4
BSAD 1010	Principles of Marketing	4.5
BSAD 1200	Principles of Selling	4.5
BSAD 1201	Advertising and Sales Promotion	4.5
BSAD 1210	Retailing	4.5
BSAD 2720	International Marketing Management	4.5
Select one course from the following:		
BSAD 1100	Business Law I	4.5
BSAD 1202	Direct Marketing Methods (offered in Fall only)	4.5
BSAD 2100	Principles of Management	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
FINA 1200	Wealth-Building Fundamentals	4.5
Any course in the ENTR or FINA prefix		4.5

BUSINESS MANAGEMENT – Not-for-Profit Management (BMNCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	13.5
Major Requirements	31.0
Focus Area Requirements	7.5
Total Credit Hours Required	**52.0**

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1220 Technical Writing	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)	4.5		

Major Requirements for Not-for-Profit Management..... 31.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1050	Bookkeeping	4
BSAD 1010	Principles of Marketing	4.5
BSAD 1250	Introduction to Not-for-Profit	4.5
BSAD 2100	Principles of Management	4.5
ECON 1100	Microeconomics **OR**	
BSAD 1100	Business Law I	4.5
ENGL 1240	Oral and Written Reports	4.5
ENGL 2210	Grant Writing	4.5

Focus Area Requirements for Not-for-Profit Management....7.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 2220	Art Gallery Management **OR**	
HMSV 1010	Introduction to Human Services **OR**	
THEA 2200	Arts Administration	4.5
BSAD 2981	Internship	3

BUSINESS MANAGEMENT – Para-Financial Planner (BPFCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center

Graduation Requirements	
General Education	13.5
Major Requirements	35.5
Total Credit Hours Required	**49.0**

The Para-Financial focus of this Business Management Certificate is designed to prepare the student for employment in the financial planning industry by providing exposure to the fundamental elements of the financial planning process including: principles and practices, insurance, investments, retirement planning, tax planning, and estate planning. Upon completion of this program, potential employment opportunities exist with companies, government agencies and nonprofit organizations in the financial services industry.

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics	4.5		

Major Requirements for Para-Financial Planner.....35.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1001	Information Systems and Literacy	4.5
ECON 1000	Macroeconomics	4.5
FINA 1200	Wealth-Building and Personal Finance	4.5
FINA 1310	Introduction to the Financial Services Industry	4.5
FINA 1320	Financial Calculator Applications	1.0
FINA 2100	Introduction to Investments	4.5
FINA 2206	Fundamentals of Financial Planning I	4.5
FINA 2207	Fundamentals of Financial Planning II	4.5
FINA 2981	Internship	4.5

BUSINESS MANAGEMENT —Specialist Diplomas

Award: Specialist Diploma
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Business Management Generalist (BMGSD)

The Business Management Generalist Specialist Diploma is designed to provide the business practitioner with a flexible background for dealing with a range of challenging commercial issues. The student may select electives according to career interest application opportunities.

Requirements for Business Management Generalist Diploma ..... 25.0 Credit Hrs.

Courses	Credit Hrs.
Students may choose 25 credit hours from ACCT, BSAD, ENTR, FINA, INSU or REES.	

Credit Management (BCMSD)

The Credit Management Specialist Diploma is designed to provide a targeted background for successful employment and career advancement in this business specialty.

Requirements for Credit Management Diploma ..... 33.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I	4
ACCT 1110	Accounting II	4
ACCT 1120	Accounting III	4
BSAD 1100	Business Law I	4.5
BSAD 2100	Principles of Management	4.5
FINA 2240	Financial Statement Analysis	3
FINA 2410	Consumer Credit	4.5
LAWS 2325	Bankruptcy, Credit and Collections Law ◈	4.5

◈ Additional prerequisite(s) may be required.

Customer Service Management (BCSSD)

The student obtaining the Customer Service Management Diploma will have developed skills in working with customers and employees in business settings where extensive employee and customer interactions are critical.

Requirements for Customer Service Management Diploma. ..... 27.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1010	Customer Service Skills	4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2100	Principles of Management	4.5
SPCH 1110	Public Speaking	4.5
HMRL 1010	Human Relations Skills	4.5
SPCH 1300	Interpersonal Communication	4.5

Entrepreneurship (BENSD)

Prepares the students with a background in small business management to enable them to be successful in starting a new business.

Requirements for Entrepreneurship Diploma..... 27.0 Credit Hrs.

Courses		Credit Hrs.
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5

Financial Planning Specialist (BFPS1)

The Financial Planning specialist diploma prepares students to participate in the financial planning industry providing technical support to industry professionals including Certified Financial Planners™. Students will be exposed to the fundamental elements of the financial planning process including: Principles and Practices, Insurance, Investments, Retirement Planning, Tax Planning, and Estate Planning. Upon completion of this program, potential employment opportunities exist with companies, government agencies, and nonprofit organizations in the financial services industry.

Requirements for Financial Planning Specialist Diploma ..... 32.5 Credit Hrs.

Courses			Credit Hrs.
Humanities/Social Science course			4.5
MATH	1220	Business Mathematics	4.5
ECON	1000	Macroeconomics	4.5
FINA	1200	Wealth-Building and Personal Finance	4.5
FINA	1320	Financial Calculator Applications	1.0
FINA	2100	Introduction to Investments	4.5
FINA	2206	Fundamentals of Financial Planning I	4.5
FINA	2981	Internship	4.5

Financial Services Management (BFSSD)

This specialty diploma provides the practitioner with background information and builds skills needed in managing the financial services function in a business setting.

Requirements for Financial Services Management Diploma ..... 27.0 Credit Hrs.

Courses			Credit Hrs.
FINA	1310	Introduction to the Financial Services Industry	3
FINA	2209	Risk Management and Insurance	4.5
FINA	2210	Financial Planning Principles	4.5
FINA	2220	Asset/Liability Management for Financial Institutions	3
FINA	2240	Financial Statement Analysis ◇	3
LAWS	2325	Bankruptcy, Credit and Collections Law ◇	4.5

◇ Additional prerequisite(s) may be required.

Insurance and Risk Management (BIMS1)

The Insurance and Risk Management Specialist Diploma is designed to provide a strong background for those entering the insurance industry or seeking a strong understanding of this business specialty.

Requirements for Insurance and Risk Management Diploma..... 27.0 Credit Hrs.

Courses			Credit Hrs.
BSAD	1200	Principles of Selling	4.5
FINA	2209	Risk Management and Insurance	4.5
INSU	1000	Principles of Health and Life Insurance	4.5
INSU	1100	Principles of Property and Casualty Insurance	4.5
INSU	2421	Insurance Law	4.5
Electives			4.5

International Business (BIBSD)

A growing segment of American enterprise is being impacted by the developing international business opportunities. This specialty develops skills in international marketing, import/export operations and other skills that are seen as key to success in the international marketplace.

Requirements for International Business Diploma ..... 25.5 Credit Hrs.

Courses			Credit Hrs.
BSAD	2700	Introduction to International Business	4.5
BSAD	2710	Import/Export Operations	4.5
BSAD	2720	International Marketing Management	4.5
ECON	2720	International Economics ◇	4.5
FREN	1020	Beginning French II ◇ **OR**	
GERM	1020	Elementary German II ◇ **OR**	
JAPN	1020	Beginning Japanese II ◇ **OR**	
SPAN	1120	Elementary Spanish II ◇	7.5

◇Additional prerequisite(s) may be required.

Marketing Administration (BMASD)

This diploma is designed to provide the student with marketing, promotional and management skills as generally used in corporate, retail and small business settings.

Requirements for Marketing Administration Diploma ..... 27.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 1200	Principles of Selling	4.5
BSAD 1201	Advertising and Sales Promotion	4.5
BSAD 1210	Retailing	4.5
BSAD 2720	International Marketing Management	4.5
Select one course from the following:		4.5
BSAD 1100	Business Law I	4.5
BSAD 1202	Direct Marketing Methods (offered in Fall only)	4.5
BSAD 2100	Principles of Management	4.5
Any business course from the ENTR or FINA prefixes		4.5

Merchandising Management (BMMSD)

New practitioners in merchandising will find this specialist diploma provides an introduction to practices and strategies employed in marketing in various settings. Hands-on projects enable students to try out many of the strategies presented for eventual application in the workplace.

Requirements for Merchandising Management Diploma ..... 25.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1200	Principles of Selling	4.5
BSAD 1201	Advertising and Sales Promotion	4.5
BSAD 1202	Direct Marketing Methods (offered in Fall only)	4.5
BSAD 1210	Retailing	4.5
Electives		7.5

Not-for-Profit Management (BNPSD)

Requirements for Not-for-Profit Management Diploma ..... 25.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1250	Introduction to Not-for-Profit	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 2100	Principles of Management	4.5
ENGL 2210	Grant Writing	4.5
HMSV 1010	Introduction to Human Services **OR**	
THEA 2200	Arts Administration	4.5
BSAD 2981	Internship	3

Organizational Development (BODSD)

The Organizational Development Specialist Diploma is designed to develop skills necessary to build effective teams that support organizational goals.

Requirements for Organizational Development Diploma ..... 25.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1300	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2600	Human Resources Management	4.5
HMRL 1050	Leadership Training and Skill Development	4.5
Electives		7.5

Operations and Supply Chain Management (BOSSD)

The Operations and Supply Chain Management Specialist Diploma is designed to enhance and develop managerial problem-solving skills applicable to a manufacturing/service provider setting.

Requirements for Operations and Supply Chain Management Diploma..... 27.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1300	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2300	Quality Management: Statistical Process Control	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
BSAD 2420	Production and Operations Management	4.5

Financial Counseling (BFCSD)

The Financial Counseling Specialist Diploma is designed to develop a strong background for those seeking to pursue a career in counseling individuals regarding personal financial matters.

Requirements for Financial Counseling Diploma ..... 26.0–27.0 Credit Hrs.

Courses		Credit Hrs.
FINA 1200	Wealth-Building Fundamentals	4.5
FINA 2210	Financial Planning Principles	4.5
FINA 2400	Financial Counseling	4.5
FINA 2410	Consumer Credit	4.5
HMRL 1010	Human Relations Skills **OR**	
HMSV 1110	Interpersonal Communications	3.5–4.5
PSYC 2140	Behavior Modification and Principles of Learning **OR**	
SOCI 2160	Marriage and the Family	4.5

FINANCIAL PLANNING (BMPC1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center, Online

The Professional Planning Certificate of Achievement is designed to provide the student with practical experience in fields of personal investment strategies related to retirement planning, estate planning and tax-advantaged investments. Upon completion of this program, potential employment opportunities exist with companies, government agencies and nonprofit organizations in the financial services industry.

Graduation Requirements	
General Education	18.0
Major Requirements	36.0
Total Credit Hours Required	**54.0**

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1410 Statistics	4.5		
Mathematics (see page 40)^	4.5		
^MATH 1310 is recommended.			

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Personal Financial Planning .....36.0 Credit Hrs.

Courses		Credit Hrs.
FINA 2200	Investments	4.5
FINA 2209	Risk Management and Insurance	4.5
FINA 2210	Financial Planning Principles	4.5
FINA 2230	Business Finance	4.5
FINA 2310	Income Tax Planning	4.5
FINA 2320	Retirement Planning and Employee Benefits	4.5
FINA 2330	Estate Planning	4.5
FINA 2940	Case Analysis in Financial Planning	4.5

The Certificate of Achievement in Personal Financial Planning is a registered program with Certified Financial Planning Board of Standards Inc. For more information about the CFP® Certification, contact the Certified Financial Planners Board of Standards (http://www.CFP-Board.org).

BUSINESS TRANSFER (BSTAA)

Award: Associate in Arts Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This degree provides the student with the dual option of seeking entry-level business positions and/or continuing his/her studies at a four-year institution. Currently, Bellevue University, Midland Lutheran College, the University of Nebraska—Lincoln (UNL), Northwest Missouri State and the University of Nebraska–Omaha (UNO) accept this degree. Areas of emphasis include accounting, economics, management and marketing.

Graduation Requirements	
General Education	56.0
Major Requirements	43.5
Total Credit Hours Required	**99.5**

General Education Requirements.....56.0* Credit Hours

Communications		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

Social Sciences		Credit Hrs.
Select two courses from the following:		
GEOG 1050	Introduction to Human Geography	4.5
HIST 1110	World Civilization to 1500	4.5
HIST 1120	World Civilization 1500 to Present	4.5
HIST 2050	Modern Europe Since 1815	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 1250	Introduction to Anthropology	4.5

Quantitative/Numeracy Skills		Credit Hrs.
MATH 1410	Statistics ◈	4.5
MATH 1420	College Algebra ◈	5

Natural Sciences	Credit Hrs.
Natural Sciences (see page 245)	6

Humanities		Credit Hrs.
Select one course from the following:		
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2610	British Literature I	4.5
ENGL 2620	British Literature II	4.5
MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
THEA 1000	Introduction to the Theatre	4.5

Cultural Diversity		Credit Hrs.
Select one course from the following:		
ENGL 2530	Ethnic Literature	4.5
HIST 1050	Introduction to Black History	4.5
SOCI 2060	Multicultural Issues	4.5

Other		Credit Hrs.
HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.
◈ Additional prerequisite(s) may be required.

Major Requirements for Business Transfer 43.5

Courses		Credit Hrs.
ACCT 1100	Accounting I	4
ACCT 1110	Accounting II	4
ACCT 1120	Accounting III8	4
BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing★	4.5
BSAD 1100	Business Law I*	4.5
BSAD 2100	Principles of Management☞	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
Select one course from the following:		
BSAD 2700	Introduction to International Business	4.5
BSAD 2720	International Marketing Management	4.5
ECON 2720	International Economics	4.5

☞For students transferring to UNO, this course will need to be followed with an upper-level management course at UNO.

★For students transferring to UNO, this course will need to be followed with an upper-level marketing course at UNO.

**For students transferring to UNO, this course will need to be followed with an upper-level Business Law course at UNO.*

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

It pays to be prepared: It is strongly recommended that students complete math requirements early in your program of study.

Below is a suggested guide for a student planning to complete the Business Transfer degree after two years of full-time study. Students should contact an advisor for assistance.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
BSAD 1000	4.5	ECON 1000	4.5	ACCT 1110	4.0
ENGL 1010	4.5	ENGL 1020	4.5	SPCH 1110	4.5
HMRL 1010	4.5	ACCT 1100	4.0	ECON 1100	4.5
MATH 1420	5.0	MATH 1410	4.5	Social Science Elective	4.5
	18.5		17.5		17.5
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
ACCT 1120	4.0	Social Science Elective	4.5	Natural Science Elective	6.0
BSAD 1100	4.5	BSAD 1010	4.5	Cultural Diversity Elective	4.5
INFO 1001 **OR**		Humanities Elective*	4.5	International Business Elective	4.5
ACCT 2230	4.5		13.5		15.0
BSAD 2100	4.5	*PHIL 1030 or PHIL 2030 is recommended.			
	17.5				

HEALTH INFORMATION MANAGEMENT SYSTEMS (HIMAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

This program is designed to meet the growing need of healthcare professionals. As the American population grows older and more dependent on technology, the number of medical and computer-related jobs is escalating rapidly to keep pace with demand.

Graduation Requirements	
General Education	27.0
Major Requirements	44.5
Option Requirements	25.5–30.0
Total Credit Hours Required	**97.0–101.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	PSYC 1010 Introduction to Psychology **OR**	
English Level II (see page 40)	4.5	SOCI 1010 Introduction to Sociology **OR**	
ENGL 1220 and ENGL 1240 are suggested		ECON 1000 Macroeconomics	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Health Information Management .....44.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1110	Introduction to Health Management	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2110	Principles of Management in Healthcare	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2980	Medical Office Applications	4.5
HIMS 2981	Internship	4

Option Requirements for Health Information Management Systems..... 25.5–30.0 Credit Hrs.

The health information professional concentrations are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Medical Coding and Billing	**Medical Office Management**	**Medical Transcription**
30 credit hours	25.5 credit hours	27 credit hours

HEALTH INFORMATION MANAGEMENT SYSTEMS — Medical Coding and Billing Option (HIMC1)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This program prepares the student for entry-level employment as a coding and billing specialist by providing the basic knowledge, understanding and skills required to work in a healthcare facility.

Graduation Requirements	
General Education	27.0
Major Requirements	44.5
Option Requirements	30.0
Total Credit Hours Required	**101.5**

General Education Requirements ..... listed on page 87

Major Requirements for Health Information Management Systems ..... listed on page 87

Requirements for Medical Coding and Billing Option .....30.0 Credit Hrs.

Courses		Credit Hrs.
HIMS 1180	Disease Processes	4.5
HIMS 1220	Health Data Concepts and Management	4.5
HIMS 1410	Introduction to Insurance	3
HIMS 2150	Pharmacology I	4.5
HIMS 2160	Pharmacology II	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5

HEALTH INFORMATION MANAGEMENT SYSTEMS — Medical Office Management Option (HIMO1)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This program provides the student with the knowledge, understanding and skills required to perform administrative and clerical duties in a medical office environment.

Graduation Requirements	
General Education	27.0
Major Requirements	44.5
Option Requirements	25.5
Total Credit Hours Required	**97.0**

General Education Requirements ..... listed on page 87

Major Requiremetns for Health Information Management Systems ..... listed on page 87

Requirements for Medical Office Management Option....25.5 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I	3
HIMS 1210	Medical Office Communications	4.5
HIMS 1220	Health Data Concepts and Management	4.5
HIMS 2220	Medical Transcription I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1213	Database Fundamentals I	4.5

HEALTH INFORMATION MANAGEMENT SYSTEMS — Medical Transcription Option (HIMTO)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Online

This program prepares students for employment as a medical transcriptionist by providing the knowledge, understanding and skills required to work in a healthcare facility or as an independent contractor.

Graduation Requirements	
General Education	27.0
Major Requirements	44.5
Option Requirements	27.0
Total Credit Hours Required	**98.5**

General Education Requirements ..... listed on page 87

Major Requirements for Health Information Management Systems ..... listed on page 87

Requirements for Medical Transcription Option .....27.0 Credit Hrs.

Courses		Credit Hrs.
HIMS 1180	Disease Processes	4.5
HIMS 1210	Medical Office Communications	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2160	Pharmacology II	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2230	Medical Transcription II	4.5

Program Codes:

CB = Medical Coding and Billing
TO = Medical Transcription
OM = Medical Office Management

BUSINESS/ OFFICE

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for the student planning a career in health information management systems after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	HIMS 1212 (TO/OM) **OR**		English Level II	4.5	ACCT 1100 (OM) **OR**	
HIMS 1110	4.5	HIMS 1220 (CB)	4.5	HIMS 1130	4.5	HIMS 1210 (MT) **OR**	
INFO 1001	4.5	HIMS 1120	4.5	HIMS 1310	4.5	HIMS 1410 (CB)	3.0–4.5
	13.5	HIMS 1150	4.5		13.5	HIMS 1180 (TO/CB) **OR**	
			13.5			HIMS 1210 (OM)	4.5
						HMRL 1010	4.5
							12.0–13.5
SECOND YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
HIMS 2110	4.5	HIMS 2220 (TO/OM) **OR**		HIMS 2230 (TO) **OR**		HIMS 1212 (CB)	4.5
HIMS 2150 (TO/CB) **OR**		HIMS 2420 (CB)	4.5	HIMS 2430 (CB) **OR**		HIMS 2981	4.0
HIMS 1220 (OM)	4.5	HIMS 2160 (TO/CB) **OR**		INFO 1213 (OM)	4.5		8.5
HIMS 2400	4.5	INFO 1212 (OM)	4.5	HIMS 2980	4.5		
	13.5	MATH 1220	4.5	Social Sciences	4.5		
			13.5		13.5		

The Medical Transcription Program is approved by the Approval Committee for Certified Programs (ACCP), a joint committee established by the American Health Information Management Association (AHIMA) and the Association for Healthcare Documentation Integrity (AHDI) to approve medical transcription education certified programs.

LEGAL STUDIES (LSAAS)

Award: Associate in Applied Science Degree
Program Location: South Omaha Campus

Graduation Requirements	
General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	36.0–44.0
Total Credit Hours Required	**99.0–107.5**

General Education Requirements ..... 27.0–27.5 Credit Hrs.

Communications		Credit Hrs.	Humanities/Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PHIL 1100	Critical Reasoning	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
MATH 1410	Statistics ◈ (or higher)	5	ACCT 2230	Microcomputer Accounting Applications **OR**	
			INFO 1001	Information Systems and Literacy	4–4.5
			HMRL 1010	Human Relations Skills	4.5

◈ Additional prerequisite(s) may be required.

Major Requirements for Legal Studies ..... 36 Credit Hours

Courses		Credit Hrs.
BSAD 1100	Business Law I	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1111	Microsoft Word for the Law Office	4.5
LAWS 1230	Legal Research and Writing I	4.5
LAWS 2240	Legal Research and Writing II	4.5
LAWS 2324	Criminal Law and Procedure	4.5
POLS 2060	The Constitution **OR**	
POLS 2050	American National Government	4.5
SPCH 1110	Public Speaking	4.5

Option Requirements for Legal Studies ..... 36.0–44.0 Credit Hrs.

The Legal Studies degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Paralegal	Pre-Law	Legal Administrative Assistant
44 credit hours	36 credit hours	41 credit hours

LEGAL STUDIES — Paralegal Option* (LSPAO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The objectives of the legal assistant option are to prepare paralegals for entry-level employment in law-related occupations including public and private law practice or corporate/government activities related to law and to enable graduates to pursue further education at the college junior level.

Graduation Requirements	
General Education	27.0–27.5
Major Requirements	36.0
Additional Requirements	17.0
Electives	27.0
Total Credit Hours Required	**107.0–107.5**

Graduates are qualified to:
- perform basic legal research and supporting memoranda using both computerized and manual search methods
- draft correspondence, pleadings, contracts and other legal documents appropriately for attorney use
- prioritize and complete work assignments in a timely, professional, and ethical manner.

Although graduates are not authorized to provide direct legal services to the public, they are authorized to perform substantive legal work under the direct supervision of a lawyer. This program does not train lawyers or legal administrators.

* This program has special admission requirements. The interested individual should contact Student Services or the Program Director for details.

General Education Requirements ..... listed on page 90

Major Requirements for Legal Studies ..... listed on page 90

Additional Requirements for Paralegal. .....17.0 Credit Hrs.

Courses		Credit Hrs.
LAWS 1100	The Paralegal Profession	4.5
LAWS 1110	Litigation	4.5
LAWS 2981	Internship I	4
LAWS 2982	Internship II	4

The Paralegal option is approved by the American Bar Association.

Paralegal Elective Courses.....27.0 Credit Hrs.

Courses		Credit Hrs.
Choose 27 credit hours from the following courses:		
ACCT 1070	Individual Income Tax Accounting	4.5
BSAD 1110	Business Law II	4.5
LAWS 2320	Torts	4.5
LAWS 2321	Legal Remedies	4.5
LAWS 2322	Family Law	4.5
LAWS 2323	Employment Law	4.5
LAWS 2324	Criminal Law	4.5
LAWS 2325	Bankruptcy, Credit and Collections Law	4.5
LAWS 2326	Evidence and Discovery	4.5
LAWS 2327	Immigration Law	4.5
LAWS 2420	Estate Administration	4.5
LAWS 2421	Insurance Law	4.5
LAWS 2422	Law of Corporations	4.5
LAWS 2423	Elder Law	4.5
REES 1100	Real Estate Law	4.5

Below is a suggested guide for the student pursuing an associate degree in the Paralegal Option after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ENGL 1010	4.5	ENGL 1020	4.5	MATH 1410	5.0	BSAD 1100	4.5
INFO 1001 **OR**		SPCH 1110	4.5	LAWS 1100	4.5	HMRL 1010	4.5
ACCT 2230	4–4.5	POLS 2060 **OR**		LAWS 1101	4.5	LAWS 1110	4.5
PHIL 1100	4.5	POLS 2070	4.5		14.0		13.5
	13–13.5		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
Elective	4.5	Elective	4.5	LAWS 2981	4.0	LAWS 2982	4.0
Elective	4.5	Elective	4.5		4.0		4.0
Elective	4.5	Elective	4.5				
	13.5		13.5				
Paralegal electives should be taken during the second year of study.							

LEGAL STUDIES — Pre-Law Option (LSPLO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

This degree program provides a broad foundation in the critical thinking, oral and written communication and general research skills that prepare student who contemplate a pre-law or similar course of study at a four-year institution. Each four-year institution publishes its requirement for admission, general education and degree major requirements.

Graduation Requirements	
General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	36.0
Total Credit Hours Required	**99.0–99.5**

General Education Requirements ..... listed on page 90

Major Requirements for Legal Studies ..... listed on page 90

Option Electives for Pre-Law.....36.0 Credit Hrs.

Courses		Credit Hrs.
Choose 36 credit hours from the following courses:		
BSAD 2720	Introduction to International Business	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
HIST 1010	U.S. History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	4.5
LAWS 1110	Litigation	4.5
PHIL 1010	Introduction to Philosophy	4.5
PHIL 1030	Professional Ethics	4.5
PHIL 2400	Philosophy and Literature	4.5
PHIL 2600	Contemporary Issues in Philosophy	4.5
PSYC 1010	Introduction to Psychology	4.5

Below is a suggested guide for the student pursuing an associate degree in the Pre-Law option after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ENGL 1010	4.5	ENGL 1020	4.5	MATH 1410	5.0	BSAD 1100	4.5
INFO 1001 **OR**		SPCH 1110	4.5	LAWS 1100	4.5	HMRL 1010	4.5
ACCT 2230	4–4.5	POLS 2060 **OR**		LAWS 1101	4.5	LAWS 1110	4.5
PHIL 1100	4.5	POLS 2070	4.5		14.0		13.5
	13–13.5		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
LAWS 1111	4.5	LAWS 2240	4.5	Elective	4.5	Elective	4.5
LAWS 1230	4.5	Elective	4.5	Elective	4.5	Elective	4.5
Elective	4.5		9.0	Elective	4.5		9.0
	13.5				13.5		
Legal Study electives should be taken during the second year of study.							

The Pre-Law option is not a program for the education of paralegals.

BUSINESS/ OFFICE

LEGAL STUDIES —
Legal Administrative Assistant Option (LSAAO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

This degree option prepares legal administrative assistants for entry-level employment in law and law-related fields such as administrative or executive assistants, office supervisors or other support staff.

Graduation Requirements	
General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	41.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 90

Major Requirements for Legal Studies ..... listed on page 90

Option Requirements for Legal Administrative Assistant..... 41.0 Credit Hrs.

Courses			Credit Hrs.
INFO	1008	Business Office Communication	4.5
INFO	1012	Electric Filing and Calculating	4.5
INFO	1013	Keyboard Skillbuilding	2
INFO	1210	Microsoft Word I	4.5
INFO	1213	Database Fundamentals I	4.5
INFO	1214	Business Presentations	4.5
INFO	1215	Document Processing	4.5
INFO	2240	Integrated Microsoft Office	5
INFO	2241	Business Practices	3
INFO	2981	Internship	4

Below is a suggested guide for the student pursuing an associate degree in the Legal Administrative Assistant option after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ENGL 1010	4.5	ENGL 1020	4.5	MATH 1410	5.0	BSAD 1100	4.5
INFO 1001 **OR**		SPCH 1110	4.5	LAWS 1100	4.5	HMRL 1010	4.5
ACCT 2230	4–4.5	POLS 2060 **OR**		LAWS 1101	4.5	LAWS 1110	4.5
PHIL 1100	4.5	POLS 2070	4.5		14.0		13.5
	13–13.5		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
LAWS 1111	4.5	INFO 1008	4.5	INFO 1214	4.5	INFO 2240	5.0
INFO 1012	4.5	INFO 1212	4.5	INFO 1215	4.5	INFO 2241	3.0
INFO 1013	2.0	INFO 1213	4.5		9.0	INFO 2981	4.0
	11.5		13.5				12.0

The Legal Administrative Assistant option is not a program for the education of paralegals.

LEGAL STUDIES –
Paralegal Accelerated Certificate (LSACC)

Award: Certificate of Achievement
Program location: South Omaha Campus

Graduation Requirements	
Major Requirements	39.5
Elective Requirements	22.5
Total Credit Hours Required	**62.0**

This program has special admission requirements. The student must posses a baccalaureate degree from a recognized college or university to participate in this certificate option.

Major Requirements for Paralegal Certificate.....39.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1100	Business Law I	4.5
LAWS 1100	The Paralegal Profession	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1110	Litigation	4.5
LAWS 1111	WordPerfect	4.5
LAWS 1230	Legal Research and Writing I	4.5
LAWS 2240	Legal Research and Writing II	4.5
LAWS 2981	Internship I	4
LAWS 2982	Internship II	4

Legal Speciality Electives..... 22.5 Credit Hours

Courses		Credit Hrs.
Choose 22.5 credit hours from the following electives:		
BSAD 1110	Business Law II	4.5
LAWS 2326	Evidence and Discovery	4.5
LAWS 2320	Torts	4.5
LAWS 2327	Immigration Law	4.5
LAWS 2321	Legal Remedies	4.5
LAWS 2420	Estate Administration	4.5
LAWS 2322	Family Law	4.5
LAWS 2421	Insurance Law	4.5
LAWS 2323	Employment Law	4.5
LAWS 2422	Law of Corporations	4.5
LAWS 2325	Bankruptcy, Credit and Collections Law	4.5
LAWS 2423	Elder Law	4.5
REES 1100	Real Estate Law	4.5

Below is a suggested guide for the student pursuing a certificate of achievement in the Legal Studies Accelerated Program.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
LAWS 1100 LAWS 1101 LAWS 1111	LAWS 1110 LAWS 1230 BSAD 1100 Elective	LAWS 2240 LAWS 2981 Elective Elective	LAWS 2982 Elective Elective

MEDICAL OFFICE

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Medical office clerks are critical to the healthcare industry. Physicians rely on clerks to assist them in the documentation of patient care. The purpose of the medical office program is to provide educational opportunities to individuals to obtain the basic knowledge, skills and attitudes necessary to succeed as a clerk in a medical office environment.

Graduation Requirements	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hours
English Level I (see page 40)	4.5	MATH 1220 Business Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Medical Office.....18 Credit Hrs.

Courses		Credit Hrs.
HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5

Option Requirements for Medical Office……22.5 Credit Hrs.

The Medical Office concentrations are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Medical Coding and Billing Assistant	**Medical Office Assistant**	**Medical Transcription**
22.5 credit hours	22.5 credit hours	22.5 credit hours

The student furthers his/her education in the Health Information Management Systems area by completing an Associate Degree.

Students having little or no experience n the healthcare field should also consider taking HIMS 1110 Introduction to Health Information Management.

MEDICAL OFFICE –
Medical Coding and Billing Assistant (MOCB1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This program provides the student with the basic foundation needed to work in a healthcare facility as a coding and billing assistant.

Graduation Requirements	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... listed on page 96

Major Requirements for Medical Offiice ..... listed on page 96

Option Requirements for Medical Coding and Billing Assistant .....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1180	Disease Processes	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5

Below is the suggested format of classes for the student planning a career as a medical coding and billing assistant after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
HIMS 1120	4.5	HIMS 1180	4.5	English Level I	4.5	HIMS 2430	4.5
HIMS 1310	4.5	HIMS 1130	4.5	HIMS 2150	4.5	HIMS 1150	4.5
INFO 1001	4.5	HIMS 2400	4.5	HIMS 2420	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

It is strongly recommended that the student take HIMS 1410 Principles of Insurance and HIMS 2160 Pharmacology II in order to meet entry-level requirements for working in medical coding and billing.

MEDICAL OFFICE – Medical Office Assistant (MOOA1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This program provides the student with the basic foundation necessary to work in a healthcare facility as a medical receptionist or a hospital facility as a unit secretary.

Graduation Requirements	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... listed on page 96

Major Requirements for Medical Office ..... listed on page 96

Major Requirements for Medical Office Assistant.....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 1210	Medical Office Communications	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2220	Medical Transcription I	4.5

Below is the suggested format of classes for the student planning a career as a medical office assistant after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
HIMS 1120	4.5	ENGL Level I	4.5	HIMS 1130	4.5	HIMS 2220	4.5
HIMS 1150	4.5	HIMS 1310	4.5	HIMS 1212	4.5	HIMS 2400	4.5
INFO 1001	4.5	HIMS 1210	4.5	HIMS 2150	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

It is strongly recommended that the student take HIMS 2160 Pharmacology II in order to meet entry-level requirements for working in a medical facility.

MEDICAL OFFICE – Medical Transcription (MOTC1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Online

This program provides the student with the basic knowledge and skills necessary for an entry-level medical transcription trainee position in the healthcare industry.

Graduation Requirements	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... listed on page 96

Major Requirements for Medical Office ..... listed on page 96

Option Requirements for Transcription .....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1210	Medical Office Communications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2230	Medical Transcription II	4.5

Below is the suggested format of classes for the student planning a career in medical transcription after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
HIMS 1210	4.5	HIMS 1130	4.5	English Level I	4.5	HIMS 1150	4.5
HIMS 1120	4.5	HIMS 1310	4.5	HIMS 2150	4.5	HIMS 2230	4.5
INFO 1001	4.5	HIMS 1212	4.5	HIMS 2220	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

It is strongly recommended that the student take HIMS 2160 Pharmacology II in order to meet entry-level requirements for working as a medical transcriptionist trainee in a medical facility.

The Medical Transcription Program is approved by the Approval Committee for Certified Programs (ACCP), a joint committee established by he American Health Information Management Association (AHIMA) and the Association for Healthcare Documentation Integrity (AHDI) to approve medical transcription education certified programs.

OFFICE TECHNOLOGY

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Office technology specialists are utilized in a broad range of businesses and industries, including both for-profit and nonprofit. This program of study provides the student with the knowledge and skills necessary for positions in an office environment. Throughout the course of study, the student develops the skills needed to work towards Microsoft Office Specialist Certification.

Graduation Requirements	
General Education	27.0
Major Requirements	54.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
ENGL 1220 Technical Writing and ENGL 1230 Oral and Written Reports are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Office Technology 54.5

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1013	Keyboard Skillbuilding	2
INFO 1110	Operating Systems I	4.5
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1213	Database Fundamentals I	4.5
INFO 1214	Business Presentations	4.5
INFO 1215	Document Processing	4.5
INFO 1220	Microsoft Word II	4.5
INFO 2240	Integrated Microsoft Office	5
INFO 2241	Business Practices	3
INFO 2982	Microsoft Office Simulation **OR**	
INFO 2981	Internship	4

Option Requirements for Office Technology ..... 18.0 Credit Hrs.

The Office Technology options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Administrative Assistant	**Office Professional**
18 credit hours	18 credit hours

OFFICE TECHNOLOGY –
Administrative Assistant Option (OTAAO)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	72.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

This flexible and broadly based program achieves maximum individual development of each person's knowledge and skills relative to the wide range of duties encountered in either profit or nonprofit enterprises. Aspiring supervisors, executive assistants and general office workers find this program useful in developing their productivity and capacity for advancement.

General Education Requirements ..... listed on page 100

Major Requirements for Office Technology ..... listed on page 100

Option Requirements for Administrative Assistant.....22.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1100	Business Law I	4.5
BSAD 1600	Principles of Supervision	4.5
PHIL 1100	Critical Reasoning	4.5

Below is a suggested guide for the student planning a career as an administrative assistant after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	English Level II	4.5	BSAD 1000	4.5	BSAD 1100	4.5
MATH 1220	4.5	INFO 1012	4.5	INFO 1008	4.5	INFO 1110	4.5
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5	INFO 1212	4.5
INFO 1001	4.5		13.5		13.5		13.5
	15.5						

SECOND YEAR					
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**	
INFO 1213	4.5	BSAD 1600	4.5	HMRL 1010	4.5
INFO 1214	4.5	INFO 2240	5.0	Humanities/ Social Sciences elective	4.5
INFO 1215	4.5	PHIL 1100	4.5	INFO 2982 **OR** INFO 2981	4.0
INFO 2241	3.0		14.0		13.0
	16.5				

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

BUSINESS/ OFFICE

OFFICE TECHNOLOGY –
Office Professional Option (OTOPO)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Graduation Requirements	
General Education	27.0
Major Requirements	72.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

Office professionals are the core of most businesses. As businesses continue to expand and work with increasingly complex technology, the need for advanced training and professional certification becomes more important every day. This degree prepares the student to keep the office organized and running smoothly and work with much of the valuable data that a company needs to flourish.

General Education Requirements ..... listed on page 100

Major Requirements for Office Technology ..... listed on page 100

Option Requirements for Office Professional .....18.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1010	Customer Service Skills	4.5
INFO 1011	Project Management I	4.5
INFO 1317	Microsoft Web Editors	4.5
INFO 2260	Networks, Applications and Technologies in the Workplace	4.5

Below is a suggested guide for the student planning employment as an office professional after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	English Level II	4.5	INFO 1008	4.5	INFO 1011	4.5
MATH 1220	4.5	INFO 1012	4.5	INFO 1010	4.5	INFO 1110	4.5
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5	INFO 1212	4.5
INFO 1001	4.5		13.5		13.5		13.5
	15.5						
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
INFO 1213	4.5	INFO 1317	4.5	HMRL 1010	4.5		
INFO 1214	4.5	INFO 2240	5.0	Humanities/Social Sciences elective	4.5		
INFO 1215	4.5	INFO 2260	4.5	INFO 2982 **OR** INFO 2981	4.0		
INFO 2241	3.0		14.0		13.0		
	16.5						

This is an option within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER OFFICE TECHNOLOGY

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

This program provides the student with the basic knowledge and skills necessary for entry-level clerical positions in an office environment.

Graduation Requirements	
General Education	18.0
Major Requirements	20.0
Option Requirements	13.5
Total Credit Hours Required	**51.5**

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40) ENGL 1220 is recommended.	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hours**
MATH 1220 Business Mathematics	4.5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Microcomputer Office Technology.....20 Credit Hrs.

Courses		Credit Hrs.
INFO 1013	Keyboard Skillbuilding	2
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1214	Business Presentations	4.5
INFO 1220	Microsoft Word II	4.5

Option Requirements for Microcomputer Office Technology....13.5 Credit Hrs.

The Microcomputer Office Technology option specializations are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Information Technology	Office Applications
13.5 credit hours	13.5 credit hours

INFO 1210, INFO 1212, INFO 1213, INFO 1214 and INFO 1220 from this option work toward MOUS certification.

MICROCOMPUTER OFFICE TECHNOLOGY — Information Technology (OTTCO)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

The Information Technology Program is for the student desiring information about microcomputers and their use in business. Emphasis is placed on gaining practical experience with the use of software in a technical office environment.

Graduation Requirements	
General Education	18.0
Major Requirements	20.0
Option Requirements	13.5
Total Credit Hours Required	**51.5**

General Education Requirements ..... listed on page 103

Major Requirements for Microcomputer Office Technology ..... listed on page 103

Specialization Requirements for Information Technology..... 13.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1110	Operating Systems I	4.5
INFO 1213	Database Fundamentals I	4.5
INFO 1317	Microsoft Office Web Editor	4.5

Below is the suggested format of classes for the student planning a career in information technology after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1110	4.5	INFO 1214	4.5	INFO 1213	4.5
INFO 1010	4.5	INFO 1210	4.5	INFO 1220	4.5	Humanities/Social Sciences	
INFO 1013	2.0	INFO 1212	4.5	INFO 1317	4.5	Elective	4.5
MATH 1220	4.5		13.5		13.5		9.0
	15.5						

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER OFFICE TECHNOLOGY — Office Applications (OTGC1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This program provides the student with the basic knowledge and skills necessary for entry-level clerical positions in an office environment.

Graduation Requirements	
General Education	18.0
Major Requirements	20.0
Option Requirements	13.5
Total Credit Hours Required	**51.5**

General Education Requirements ..... listed on page 103

Major Requirements for Microcomputer Office Technology ..... listed on page 103

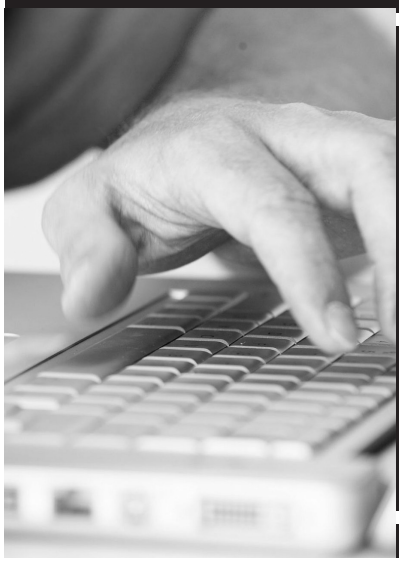
Option Requirements for Office Applications.....13.5 Credit Hrs.

Courses			Credit Hrs.
INFO	1008	Business Office Communications	4.5
INFO	1012	Electronic Filing and Calculating	4.5
INFO	1215	Document Processing	4.5

Below is the suggested format of classes for the student planning a career in office applications after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1008	4.5	INFO 1212	4.5	INFO 1215	4.5
INFO 1010	4.5	INFO 1012	4.5	INFO 1214	4.5	Humanities/Social Sciences	
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5	Elective	4.5
MATH 1220	4.5		13.5		13.5		9.0
	15.5						

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.



COMPUTING ELECTRONICS

CALL CENTER SPECIALIST CERTIFICATE

- Call Center Specialist Certificate
- Computer Technology Transfer
- Database Systems Certificate
- Electronics Technology
- General Information Technology
- IBM i Systems Certificate
- Information Technology
- Microcomputer Certificates
- Oracle Database Systems Certificate
- UNIX/Linux Operating Systems Certificate

OTHER RELATED DEGREES:

- Electronic Imaging and Media Arts *(see Arts)*
- Office Technology *(see Business/Office)*
- Microcomputer Office Technology Certificates *(see Business/Office)*
- Microcomputer Office Technology *(see Business/Office)*

CALL CENTER SPECIALIST (CCSCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	18.0
Major Requirements	37.0
Total Credit Hours Required	**55.0**

This certificate provides the student with the skills necessary to be successful as a call center representative in today's demanding business environment. The program is also appropriate for the student wanting to update his/her skills. The student gains an understanding of call center topics, operations and practices. Program of study emphasizes telephone techniques, written correspondence skills, problem-solving proficiency and computer technology skills.

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Other	Credit Hrs.
ENGL 1220 Technical Writing	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics	4.5		

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Call Center Specialist .....37.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1013	Keyboard Skillbuilding	2
INFO 1008	Business Office Communications	4.5
INFO 1011	Project Management I	4.5
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1216	Call Center Operations I	4.5
INFO 1226	Call Center Operations II	4.5
INFO 2985	Call Center Practicum I	4
INFO 2986	Call Center Practicum II	4

Below is the suggested format of classes for the student planning a career as a call center specialist after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ENGL 1220	4.5	INFO 1210	4.5	INFO 1008	4.5	HMRL 1010	4.5
INFO 1001	4.5	INFO 1226	4.5	INFO 1011	4.5	INFO 1212	4.5
INFO 1013	2.0	MATH 1220	4.5	INFO 2985	4.0	INFO 2986	4.0
INFO 1216	4.5		13.5		3.0		13.0
	15.5						

CALL CENTER OPERATIONS – Specialist Diploma (CCSSD)

Award: Specialist Diploma
Program location: Fort Omaha Campus

Requirements for Call Center Operations Diploma....26.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1005	Keyboarding **OR**	
INFO 1013	Keyboarding Skillbuilding	2
INFO 1210	Microsoft Word I	4.5
INFO 1216	Call Center Operations I	4.5
INFO 1226	Call Center Operations II	4.5
INFO 2985	Call Center Practicum I	4
INFO 2986	Call Center Practicum II	4
WORK 1400	Employability Skills	3

COMPUTER TECHNOLOGY TRANSFER – Computer Science (CTSAS)

Award: Associate in Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	42.5-44.0
Major Requirements	60.5-61.5
Total Credit Hours Required	**103.0-105.5**

This degree provides the student with the dual option of seeking entry-level programming positions and/or continuing his/her studies at a four-year institution. Currently, Bellevue University and the University of Nebraska–Omaha (UNO) accept this degree. Areas of emphasis include Logic C, C++, VB and COBOL.

General Education Requirements.....42.5–44.0* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	**Select two from the following:**	
ENGL 1020 English Composition II	4.5	ECON 1000 Macroeconomics	4.5
SPCH 1110 Public Speaking	4.5	ECON 1100 Microeconomics	4.5
		PSYC 1010 Introduction to Psychology	4.5
		SOCI 1010 Introduction to Sociology	4.5
		SOCI 2050 Current Social Problems	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
MATH 1420 College Algebra ◈	5	Natural Sciences ☞ (see page 245)	6.0–7.5
Other	**Credit Hrs.**		
HMRL 1010 Human Relations Skills	4.5		
INFO 1001 Information Systems and Literacy	4.5		

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Computer Technology Transfer... 60.5–61.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5
INFO 1023	Networking Essentials	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.Net I ◈	4.5
INFO 1531	Java Programming II	4.5
INFO 2521	Intel Assembly Language I^	4.5
INFO 2531	Intel Assembly Language II^	4.5
INFO 2537	Data Structures Using C and C++	4.5
MATH 2410	Calculus I ◈	7.5
MATH 2411	Calculus II	7.5
Choose one of the following two categories:		
Category I:		
INFO 1524	COBOL I^	5
INFO 1534	COBOL II^	5
Category II:		
INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

◈ Additional prerequisite(s) may be required.

^ Course counts toward 9 semester hours (13.5 quarter hours) of the computer science core required at UNO or toward required electives.

☞ CHEM 1010 or PHYS 110A, B and C recommended.

Students may waive hidden prerequisites.

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

COMPUTER TECHNOLOGY TRANSFER – Management Information Systems (CTMAS)

Award: Associate in Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	47.0-48.5
Major Requirements	53.0-54.0
Total Credit Hours Required	**100.0-102.5**

This degree provides the student with the dual option of seeking entry-level programming positions and/or continuing his/her studies at a four-year institution. Currently, Bellevue University and the University of Nebraska–Omaha (UNO) accept this degree. Areas of emphasis include Logic C, C++, VB and COBOL.

General Education Requirements.....47.0–48.5* Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	ECON 1000	Macroeconomics	4.5
ENGL 1020	English Composition II	4.5	ECON 1100	Microeconomics	4.5
SPCH 1110	Public Speaking	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Natural Sciences**		**Credit Hrs.**
MATH 1420	College Algebra ◈	5	Natural Sciences (see page 245)		6–7.5
Other		**Credit Hrs.**	**Cultural Diversity**		**Credit Hrs.**
HMRL 1010	Human Relations Skills	4.5	ENGL 2530	Ethnic Literature **OR**	
INFO 1001	Information Systems and Literacy	4.5	HIST 1050	Introduction to Black History **OR**	
			HIST 1110	World Civilization to 1500 **OR**	
			HIST 1120	World Civilization 1500 to Present	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Computer Technology Transfer.....53.0–54.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I	4
ACCT 1110	Accounting II	4
ACCT 1120	Accounting III	4
INFO 1003	Introduction to Computer Programming	5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.Net I ◈	4.5
INFO 1531	Java Programming II	4.5
INFO 1620	Database Management ◈	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5
Choose one of the two following categories:		
Category I:		
INFO 1524	COBOL I	5
INFO 1534	COBOL II	5
Category II:		
INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

◈ Additional prerequisite(s) may be required.

PHYS 110A, B and C is recommended.

The student will be required to take an additional upper-division database-related course at UNO to meet UNO's degree requirements.

COMPUTING / ELECTRONICS

Visit MCC's web site for the most current transfer listings: www.mccneb.edu/articulation

Students may waive hidden prerequisites for INFO classes.

DATABASE SYSTEMS (DBSCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Database Systems Certificate of achievement curriculum is designed to provide the student with a strong foundation in database systems. The student explores various DBMS software products and utilities.

Graduation Requirements	
General Education	18.0- 18.5
Major Requirements	27.5
Option Requirements	4.5
Total Credit Hours Required	**50.0–50.5**

General Education Requirements.....18.0–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR** MATH 1420 College Algebra ◈	4.5–5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Database Systems .....27.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5
INFO 1213	Database Fundamentals I	4.5
INFO 1620	Database Design, Implementation and Management ◈	4.5
INFO 2635	My SQL Programming	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2641	SQL Server Design and Implementation	4.5

Option Requirements for Database Systems (select one). . 4.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1023	Networking Essentials	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1521	Java Programming I ◈	4.5

◈ Additional prerequisite(s) may be required.

Below is the suggested format of classes for the student planning a career in database systems after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1213	4.5	INFO 2635	4.5	INFO 2641	4.5
INFO 1003	5.0	INFO 1620	4.5	INFO 2630	4.5	MATH 1420	4.5
ENGL Level I	4.5	Option requirement	4.5	Social Science	4.5		9.5
	14.0		13.5		13.5		
SECOND YEAR							
Fifth Quarter							
INFO 2741	4.5						
	4.5						

ELECTRONICS TECHNOLOGY – Cisco Network Technician (ELNCO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

Graduation Requirements	
General Education	27.5
Major Requirements	54.0
Option Requirement	18.0
Total Credit Hours Required	**99.5**

The Network Technician Degree provides students with the latest knowledge used by many businesses to build and maintain their network systems. Students will learn the hands-on skills needed to build networks as well as the skills needed to successfully complete one of two Cisco certifications (CCNA or CCNP).

General Education Requirements.....27.5 *Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Electronics Technology.....54 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	PC Troubleshooting **AND**	4.5
ELEC 1110	Advanced PC Repair and Configuration **OR**	4.5
ELEC 1115	IT Essentials: PC Hardware and Software	9
ELEC 1200	Cisco Networking	9
ELEC 1210	Cisco Routing Fundamentals	9
ELEC 2220	Cisco LAN Switching	9
ELEC 2230	Cisco Accessing the WAN	9
INFO 1110	Operating Systems I	4.5
INFO 1120	Operating Systems II	4.5

Students may take ELEC 1115 instead of ELEC 1100 and ELEC 1110.

Option Requirements for Cisco Network Technician... 18.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1400	Wireless Network Infrastructure	9
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5

◇ Additional prerequisite(s) may be required.

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	English Level I	4.5	ELEC 1200	9.0	ELEC 1210	9.0
MATH 1420	5.0	Social Science	4.5	INFO 1110	4.5	HMRL 1010	4.5
ELEC 1100	4.5	ELEC 1110	4.5		13.5		3.5
	14.0		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
ELEC 2220	9.0	ELEC 2230	4.5	ELEC 1400	9.0	English Level II	4.5
INFO 1120	4.5	INFO 2135	4.5	INFO 2142	4.5		4.5
	13.5		13.5		13.5		

ELECTRONICS TECHNOLOGY – Computer Electronics (ELCEO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Computer Electronics Degree option provides the student with comprehensive knowledge of electronics that can be applied to many facets of the computer field.

Graduation Requirements	
General Education	27.5
Major Requirements	54.0
Option Requirement	18.0
Total Credit Hours Required	**99.5**

General Education Requirements.....27.5 *Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.
◇Additional prerequisite(s) may be required.

Major Requirements for Electronics Technology.....54.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	PC Troubleshooting **AND**	4.5
ELEC 1110	Advanced PC Repair and Configuration **OR**	4.5
ELEC 1115	IT Essentials: PC Hardware and Software	9
ELEC 1200	Cisco Networking Fundamentals	9
ELEC 1210	Cisco Routing	9
ELEC 2220	Cisco LAN Switching	9
ELEC 2230	Cisco Accessing the WAN	9
INFO 1110	Operating Systems I	4.5
INFO 1120	Operating Systems II	4.5

Students may take ELEC 1115 instead of ELEC 1100 and ELEC 1110.

Option Requirements for Computer Electronics.....18.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1000	Basic Electricity and Electronics	9
ELEC 1010	Electronic Devices and Digital Circuits	9

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	English Level I	4.5	ELEC 1000	9.0	ELEC 1010	9.0
MATH 1420	5.0	Social Science	4.5	INFO 1110	4.5	HMRL 1010	4.5
ELEC 1100	4.5	ELEC 1110	4.5		13.5		13.5
	14.0		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
ELEC 2220	9.0	ELEC 1210	4.5	ELEC 2220	9.0	ELEC 2230	9.0
English Level II	4.5	INFO 1120	4.5		9.0		9.0
	13.5		13.5				

ELECTRONICS TECHNOLOGY – Cisco Networking (ELCCO)

Award: Certificate of Achievement
Program location: South Omaha Campus

This Electronics Technology Certificate provides an intensive study of Cisco networking systems. Successful completion will enable the student to gain employment in the industry of networking.

Graduation Requirements	
General Education	13.5
Major Requirements	40.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 40)	4.5	MATH 1310 Intermediate Algebra	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Cisco Networking .....40.5 Credit Hrs.

Courses		Credit Hrs.
ELEC 1200	Cisco Networking Fundamentals	9
ELEC 1210	Cisco Routing	9
ELEC 2220	Cisco LAN Switching	9
ELEC 2230	Cisco Accessing the WAN	9
INFO 1110	Operating Systems I	4.5

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ELEC 1200	9.0	ELEC 1210	9.0	ELEC 2220	9.0	ELEC 2230	9.0
INFO 1001	4.5	INFO 1110	4.5	English Level I	4.5	MATH 1310	4.5
	13.5		13.5		13.5		13.5

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

ELECTRONICS TECHNOLOGY – Microcomputer Repair (ELMCO)

Award: Certificate of Achievement
Program location: South Omaha Campus

Graduation Requirements	
General Education	13.5
Major Requirements	22.5
Option Requirements	18.0
Total Credit Hours Required	**54.0**

This Microcomputer Repair Certificate provides an introduction to basic electrical and electronic circuits and devices with emphasis on microcomputer parts and systems. It enables the student to enter company training programs and assist certified electronics technicians. Upon successful completion, the student may work toward the electronics associate degree.

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 40)	4.5	MATH 1310 Intermediate Algebra	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Electronics Technology .....22.5 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	PC Troubleshooting **AND**	4.5
ELEC 1110	Advanced PC Repair and Configuration **OR**	4.5
ELEC 1115	IT Essentials: PC Hardware and Software	9
ELEC 1200	Cisco Networking Fundamentals	9
INFO 1110	Operating Systems I	4.5

Students may take ELEC 1115 instead of ELEC 1100 and ELEC 1110.

Option Requirements for Microcomputer Repair .....18.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1000	Basic Electricity and Electronics	9
ELEC 1010	Electronic Devices andDigital Circuits	9

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ELEC 1100	4.5	ELEC 1000	9.0	ELEC 1010	9.0	ELEC 1200	9.0
English Level I	4.5	ELEC 1110	4.5	INFO 1110	4.5	MATH 1310	4.5
INFO 1001	4.5		13.5		13.5		13.5
	13.5						

ELECTRONICS TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: South Omaha Campus

Cisco Certified Network Associate (CCNA)

Completion of this diploma will allow students to sit the certification exam for the Cisco Certified Network Associate.

Requirements for CCNA Diploma .....36.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1200	Cisco Networking Fundamentals	9
ELEC 1210	Cisco Routing	9
ELEC 2220	Cisco LAN Switching	9
ELEC 2230	Cisco Accessing the WAN	9

Cisco Wireless Infrastructure (ECWSD)

Completion of this diploma will allow students to sit for the certification exam for wireless infrastructure from Cisco.

Requirements for Wireless Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	PC Troubleshooting	4.5
ELEC 1110	Advanced PC Repair and Configuration	4.5
ELEC 1400	Wireless Network Infrastructure	9
ELEC 1200	Cisco Networking Fundamentals **OR**	9
INFO 1023	Networking Essentials **AND**	4.5
ELEC 1120	Network Electronics	4.5

GENERAL INFORMATION TECHNOLOGY (GITAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Microcomputers are an integral part of today's business environment. This degree provides a strong foundation in emerging jobs in the networking, helpdesk, database, web design and computer programming fields.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

General Education Requirements.....27.0–27.5 *Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra OR		HMRL 1010 Human Relations Skills	4.5
MATH 1220 Business Math	4.5–5	INFO 1001 Information Systems and Literacy	4.5
*Students transferring to a four-year institution must take MATH 1420.			

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Information Technology .....41.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5
INFO 1011	Project Management I	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1315	Interface Design	4.5
INFO 1620	Database Design, Implementation and Management	4.5
INFO 2351	Introduction to XML	4.5

Option Requirements for General Information Technology.....36.0 Credit Hrs.

The student is required to meet with designated faculty to plan the remainder of the course of study. The student builds his/her degree from any of the Information Technology degree options, Computer Technology Transfer degrees, Microcomputer Technology Certificate options, Security Specialist Diploma and the Electronics Technology Degree.

Below is the suggested format of classes for the student planning a career in General Information Technology after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5
Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	INFO Elective	4.5
Gen. Ed./INFO Elective	4.5	INFO Elective	4.5	INFO Elective	4.5	INFO Elective	4.5
	13.5		13.5		13.5		13.5

A student who completes an Associate in Applied Science in Information Technology at MCC has completed the major requirements for Bellevue University. Students need to take at least 30 semester hours at Bellevue and can take additional coursework at MCC toward their Bellevue University degree.

IBM i SYSTEMS (CASC2)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The IBM i, IBM's most popular midrange computer, is designed to manage large databases. This certificate of achievement provides the student proficiency in IBM i operations, RPG and control language programming.

Graduation Requirements	
General Education	18.5
Major Requirements	36.5
Total Credit Hours Required	**55.0**

General Education Requirements.....18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◈	5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for IBM I Systems.....36.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5
INFO 1112	Introduction to IBM i	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1521	Java Programming I	4.5
INFO 1525	IBM i RPG Programming I	4.5
INFO 2549	IBM i Control Language Programming	4.5
INFO 2621	IBM i Database Management I	4.5
INFO 2761	Java Servlets and JSP	4.5

◈ Additional prerequisite(s) may be required.

Below is the suggested format of classes for the student planning a career in IBM i systems after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1112	4.5	INFO 1525	4.5	INFO 2549	4.5
INFO 1001	4.5	INFO 1521	4.5	INFO 2621	4.5	INFO 2761	4.5
INFO 1003	4.5	INFO 1311	4.5	MATH 1420	5.0	Social Science	4.5
	13.5		13.5		14.0		13.5

INFORMATION TECHNOLOGY

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Microcomputers are an integral part of today's business environment. This degree provides a strong foundation in emerging jobs in the networking, helpdesk, database, web design and computer programming fields.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	6.0-40.5
Total Credit Hours Required	**104.0-109.0**

General Education Requirements.....27.0–27.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◈ **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1220 Business Math	4.5 – 5	INFO 1001 Information Systems and Literacy	4.5
*Students transferring to a four-year institution must take MATH 1420.			

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Information Technology .....41.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5
INFO 1011	Project Management I	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1315	Interface Design	4.5
INFO 1620	Database Design, Implementation and Management	4.5
INFO 2351	Introduction to XML	4.5

◈ Additional prerequisite(s) may be required.

Option Requirements for Information Technology.....36.0–40.5 Credit Hrs.

The Information Technology options are available in the areas listed below. See the following pages for specific courses required to satisfy each option.

Data Center Management 36 credit hours	**Database Administration** 36 credit hours	**Desktop Specialist** 40.5 credit hours
e-Commerce 36 credit hours	**Helpdesk** 36 credit hours	**Programming for Database/Web** 36 credit hours
Server Administration 36 credit hours	**Web Development** 36 credit hours	

A student who completes an Associate in Applied Science in Information Technology at MCC has completed the major requirements for Bellevue University. Students need to take at least 30 semester hours at Bellevue and can take additional coursework at MCC toward their Bellevue University degree.

INFORMATION TECHNOLOGY —
Data Center Management Option (ITDCO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

Data Centers are a critical part of today's data processing world. This program familiarizes the student with the physical components, design, management, support and operations in a data center. The student studies about the data center infrastructure, creating a server environment to specific needs and daily operations of data center activities.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required:	**104.0-104.5**

General Education Requirements ..... listed on page 118

Major Requirements for Information Technology ..... listed on page 118

Option Requirements for Data Center Management .... 36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 1431	Data Center Racks and Cabling	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2401	Applied Data Center Management	4.5
INFO 2801	Networking Security	4.5
INFO 2990	Data Center Management Internship	4.5

Below is the suggested format of classes for the student planning a career in data center management after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level 1	4.5	INFO 1002	4.5	English Level II	4.5	HMRL 1010	4.5
INFO 1001	4.5	INFO 1110	4.5	INFO 1023	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1620	4.5	INFO 1311	4.5	INFO 1315	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1400	4.5	INFO 2362	4.5	INFO 1431	4.5	INFO 2900	4.5
INFO 1401	4.5	INFO 1421	4.5	INFO 2401	4.5	Social Science	4.5
INFO 2351	4.5	MATH	4.5–5	INFO 2801	4.5		9.0
	13.5		13.5–14.0		13.5		

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Database Administration Option (ITDAO)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

Databases are the core of today's information systems and comprise one of the fastest growing areas of the information technology field. The Database Administration Degree provides the student with a strong technical foundation in the design, implementation and administration of a relational database system.

General Education Requirements ..... listed on page 118

Major Requirements for Information Technology ..... listed on page 118

Option Requirements for Database Administration ...36.0 Credit Hrs.

Courses		Credit Hrs.
Choose 18 credit hours from the following Level I courses:		
INFO 1021	Project Management II	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 1521	Java Programming I	4.5
INFO 1522	C++ Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 2635	MySQL Programming	4.5
INFO 2621	IBM i Database Management I	4.5
INFO 2630	Structured Query Language (SQL)	4.5
Choose 13.5 credit hours from the following Level II courses:		
INFO 1531	Java Programming II	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2538	System Analysis and Design	4.5
INFO 2631	IBM i Database Management II	4.5
INFO 2640	Oracle PL/SQL Programming	4.5
INFO 2641	SQL Server Design and Implementation	4.5
INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development	4.5
INFO 2750	Introduction to Web Application Development	4.5
Required Course:		
INFO 2945	Database Design and Administration Capstone	4.5

INFO 2945 is required for this program; it is the last course to be taken.

Below is the suggested format of classes for the student planning a career in database administration after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed./Level I	4.5	Gen. Ed./Level I	4.5
	4.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5
Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	Level II	4.5
Gen. Ed./Level 1/Level II	4.5	Level II	4.5	Level II	4.5	INFO 2945	4.5
	13.5		13.5		13.5		13.5

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Desktop Specialist Option (ITDSO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

This degree prepares the student to successfully manage a local/wide area network (LAN and WAN). The student is provided with a strong technical foundation in networking technologies.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	40.5
Total Credit Hours Required	**108.5–109.0**

General Education Requrements ..... listed on page 118

Major Requirements for Information Technology ..... listed on page 118

Option Requirements for Desktop Specialist .....40.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access and Monitoring	4.5
INFO 2261	Software Applications Support	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2801	Networking Security	4.5
INFO 2942	Network Capstone	4.5
Choose 9 credit hours from the following courses:		
ELEC 1400	Wireless Network Infrastructure	9.0
INFO 1112	Introduction to IBM i	4.5
INFO 1431	Data Center Racks and Cabling	4.5
INFO 1801	A+ Certified Professional I	4.5
INFO 1802	A+ Certified Professional II	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2900	Special Topics in INFO	Variable
INFO 2981	Internship	Variable
INFO 2984	IT Student Assistant	Variable

Below is the suggested format of classes for the student planning a career as a desktop specialist after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1315	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1400	4.5
Gen. Ed.	4.5	INFO 1011	4.5	INFO 1120	4.5	INFO 1620	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1421	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5	INFO 2942	4.5
INFO 2261	4.5	INFO 2362	4.5	INFO 2801	4.5	Gen. Ed.	4.5
INFO 2351	4.5	INFO Elective	4.5	INFO Elective	4.5	Gen. Ed.	4.5
	13.5		13.5		9.0		9.0

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – e-Commerce Option (ITECO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

The e-Commerce Degree prepares students to plan and develop a strong foundation in emerging technologies in the business environment. The graduate will have working knowledge of e-commerce coupled with database, management of software, networking, programming or web development.

General Education Requirements ..... listed on page 118

Major Requirements for Information Technology ..... listed on page 118

Option Requirements for e-Commerce .....36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1004	Introduction to e-Commerce **OR**	
BSAD 1004	Introduction to e-Commerce	4.5
INFO 2941	e-Commerce Capstone **OR**	
BSAD 2941	e-Commerce Capstone	4.5
BSAD 1100	Business Law I	4.5
Level I – Choose 9 credit hours from the following courses:		
ACCT 1100	Accounting I	4.5
BSAD 1010	Principles of Marketing	4.5
PHIL 1030	Professional Ethics	4.5
INFO 1010	Customer Service Skills	4.5
INFO 1401	Introduction to Data Center Management	4.5
Level II – Choose 13.5 credit hours from the following courses:		
BSAD 1110	Business Law II	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1526	Visual C# Programming I	4.5
INFO 1620	Database Design, Implementation and Management	4.5
INFO 2630	Structured Query Language (SQL)	4.5

Below is the suggested format of classes for the student planning a career in e-commerce after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	INFO 1004	4.5	Gen. Ed./Level I	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./Level I/Level II	4.5	Gen. Ed./Level I/Level II	4.5	INFO 2941	4.5
Gen. Ed./Level I/Level II	4.5	Gen. Ed./Level I/Level II	4.5	Gen. Ed./Level I/Level II	4.5	Level II	4.5
Gen. Ed./Level I/Level II	4.5	Level II	4.5	Level II	4.5	Level II	4.5
	13.5		13.5		13.5		13.5

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Helpdesk Option (ITHDO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

Companies are currently using computer career paths, which start with positions titled Help Desk Support for Software and/or Hardware, Support Personnel for Mainframe and Microcomputers, Microcomputer Technician and Software Support. The student completing this degree is provided with a strong technical foundation in microcomputer support and is prepared to successfully manage a software/hardware PC environment.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

General Education Requirements ..... **listed on page 118**

Major Requirements for Information Technology ..... **listed on page 118**

Option Requirements for Helpdesk Support Specialist ..... 36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1010	Customer Service Skills	4.5
INFO 1120	Operating Systems II	4.5
INFO 1240	Integrated Applications for the Help Desk	4.5
INFO 2261	Software Applications Support	4.5
INFO 2981	Internship **OR**	
INFO 2983	Help Desk Capstone	4.5
Choose 9 credit hours from the following courses:		
INFO 1005	Keyboarding	2
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1213	Database Fundamentals I	4.5
INFO 1216	Call Center Operations I	4.5
INFO 1226	Call Center Operations II	4.5
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access and Monitoring	4.5
INFO 2900	Special Topics in INFO	Variable
INFO 2984	IT Student Assistant	Variable
INFO 2985	Call Center Practicum I	4.0

Below is the suggested format of classes for the student planning a career in help desk after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1311	4.5	HMRL 1010	4.5
English Level I	4.5	INFO 1620	4.5	English Level II	4.5	INFO 1315	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1008	4.5	Elective	2–4.5	Elective	2–4.5	INFO 2981 **OR**	
INFO 1120	4.5	INFO 1240	4.5	INFO 2261	4.5	INFO 2983	4–4.5
INFO 2351	4.5	INFO 1010	4.5	MATH	4.5	Social Science	4.5
	13.5		11–13.5		11–13.5		8.5–9.0

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY –
Programming for Database/Web Option (ITDWO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

This option provides the student with a strong foundation in program design, web programming and design and database processing that is needed in today's business world. The student will gain experience in databases, web design and programming languages.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

General Education Requirements ..... **listed on page 118**

Major Requirements for Information Technology ..... **listed on page 118**

Option Requirements for Programming for Database/Web... 36.0 Credit Hrs.

Courses		Credit Hrs.
Choose 18 credit hours from the following Level I courses:		
INFO 1120	Operating System II	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 1521	Java Programming I	4.5
INFO 1522	C++ Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1526	Visual C# Programming I	4.5
INFO 1531	Java Programming II	4.5
INFO 1532	C++ Programming II	4.5
INFO 1533	Visual Basic.NET II	4.5
INFO 1536	Visual C# Programming II	4.5
Choose 13.5 credit hours from the following Level II courses:		
INFO 2538	System Analysis and Design	4.5
INFO 2539	Programming for Wireless	4.5
INFO 2635	MySQL Programming	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2640	Oracle PL/SQL Programming	4.5
INFO 2740	Oracle Web Application Development	4.5
INFO 2750	Introduction to Web Application Development	4.5
INFO 2761	Java Servlets and JSP	4.5
Required Course:		
INFO 2940	Database/Web Programming Capstone	4.5

INFO 2940 is required for the degree; however, it is the last course taken.

Below is the suggested format of classes for the student planning a career in programming for database/web after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed./Level I	4.5	Gen. Ed./Level I	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	Gen Ed/Level 1/Level II	4.5
Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	Gen. Ed./Level 1/Level II	4.5	INFO 2940	4.5
Gen. Ed./Level 1/Level II	4.5	Level II	4.5	Level II	4.5	Level II	4.5
	13.5		13.5		13.5		13.5

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Server Administration Option (ITSAO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus, Online

This degree prepares the student to successfully manage the world wide web environment. The student is provided with a strong technical foundation in developing content for the world wide web and any Internet-related support.

Graduation Requirements	
General Education	27.0-27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 118

Major Requirements for Information Technology ..... listed on page 118

Option Requirements for Server Administration.....36.0 Credit Hrs.

Courses		Credit Hrs.
Level I:		
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
Level II:		
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5
INFO 2145	Windows Server Administration	4.5
INFO 2261	Software Applications Support	4.5
INFO 2801	Networking Security	4.5
INFO 2942	Network Capstone	4.5

Below is the suggested format of classes for the student planning a career in server administration after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1620	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1120	4.5	INFO 2135	4.5
Gen. Ed.	4.5	INFO 1011	4.5	INFO 1311	4.5	INFO 1315	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5	INFO 2942	4.5
Gen. Ed.	4.5	INFO 1400	4.5	INFO 2261	4.5	Gen. Ed.	4.5
INFO 2142	5.0	INFO 2145	4.5	INFO 2801	4.5		9.0
	13.5		13.5		13.5		

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Web Development Option (ITWDO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

This degree prepares the student to successfully manage the world wide web environment. The student is provided with a strong technical foundation in developing content for the world wide web and any Internet-related support.

Graduation Requirements	
General Education	27.0-7.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0-104.5**

General Education Requirements ..... **listed on page 118**

Major Requirements for Information Technology ..... **listed on page 118**

Option Requirements for Web Development .....36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1316	Dreamweaver I	4.5
INFO 1318	Fireworks I	4.5
INFO 1319	Flash I	4.5
INFO 2340	Internet Scripting and Databases	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2750	Introduction to Web Application Development	4.5
INFO 2944	Web Development Capstone	4.5
Choose one of the following courses:		
INFO 1317	Microsoft Web Editors	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1700	Introduction to Gaming	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2635	MySQL Programming	4.5
INFO 2900	Special Topics in INFO	Variable
INFO 2981	Internship	Variable

Below is the suggested format of classes for the student planning a career in web development after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1311	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Elective	4.5	INFO 2750	4.5	INFO 2944	4.5
INFO 1318	4.5	INFO 1316	4.5	INFO 1319	4.5	Gen. Ed.	4.5
MATH	4.5–5.0	INFO 2340	4.5	INFO 2362	4.5	Elective	4.5
	13.5–14.0		13.5		13.5		13.5

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INFORMATION TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Collegewide

IT Professional Enhancement (ITPSD)

Requirements for IT Professional Enhancement Diploma..... 24.0 Credit Hrs.

Courses			Credit Hrs.
Choose 24 credit hours from the following courses:			
INFO	1901	Microsoft Excel 2003 Level I	1
INFO	1902	Microsoft Excel 2003 Level II	1
INFO	1903	Microsoft Excel 2003 Level III	1
INFO	1904	Web Graphics	1
INFO	1905	FrontPage Level I	1
INFO	1906	Introduction to DHTML/JavaScript	1
INFO	1907	Microsoft Access 2003 Level I	1
INFO	1908	Microsoft Access 2003 Level II	1
INFO	1909	Microsoft Access 2003 Level III	1
INFO	1910	QuickBooks Level I	1.5
INFO	1911	QuickBooks Level II	1.5
INFO	1913	Web Planning	0.5
INFO	1914	Microsoft Word 2007 Level I	1
INFO	1915	FrontPage Level II	1
INFO	1916	Web Expression	1.5
INFO	1917	Microsoft Access 2007 Level I	1
INFO	1918	Microsoft Excel 2007 Level I	1
INFO	1920	Speech Recognition	1
INFO	1921	PowerPoint 2007 Level I	1
INFO	1923	Office 2003 to 2007 Mitigation	1.5
INFO	1924	Microsoft Word 2007 Level II	1
INFO	1925	Windows Vista Level I	1
INFO	1927	Microsoft Access 2007 Level II	1
INFO	1928	Microsoft Excel 2007 Level II	1
INFO	1931	PowerPoint 2007 Level II	1
INFO	1934	Microsoft Word 2007 Level III	1
INFO	1937	Microsoft Access 2007 Level III	1
INFO	1938	Microsoft Excel 2007 Level III	1

MICROCOMPUTER TECHNOLOGY

Award: Certificate of Achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online

Microcomputers have become an integral part of today's office and home environment. The certificate program is designed to teach the skills necessary to utilize microcomputers and their software in a variety of applications.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	18.0–23.0
Total Credit Hours Required	**49.5–55.0**

General Education Requirements.....18–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇ **OR** MATH 1220 Business Math Students transferring to a four-year institution must take MATH 1420	4.5–5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Microcomputer Technology .....13.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5

◇ Additional prerequisite(s) may be required.

Option Requirements for Microcomputer Technology... 18.0–23.0 Credit Hrs.

The Microcomputer Technology options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Data Center Technician 23 credit hours	**Network Technician** 22.5 credit hours
Security Technician 22.5 credit hours	**Server Technician** 22.5 credit hours
Web Author 18 credit hours	

MICROCOMPUTER TECHNOLOGY – Data Center Technician Option (MCDCO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online

The Data Center Technician Certificate is designed to provide the student with an introduction to data center operations. The student learns how to assist in monitoring and implementing data center projects.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	23.0
Total Credit Hours Required	**54.5–55.0**

General Education Requirements ..... listed on page 128

Major Requirements for Microcomputer Technology..... listed on page 128

Option Requirements for Data Center Technician .....23.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5
INFO 1023	Networking Essentials	4.5
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 2351	Introduction to XML	4.5

Below is the suggested format of classes for the student planning a career as a data center technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
Gen. Ed.	4.5	INFO 1002	4.5	INFO 1023	4.5	Gen. Ed.	4.5
INFO 1001	4.5	INFO 1003	5.0	INFO 1311	4.5	INFO 1401	4.5
MATH	4.5–5.0	INFO 1110	4.5	INFO 1400	4.5	INFO 2351	4.5
	13.5–14.0		14.0		13.5		13.5

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER TECHNOLOGY – Network Technician Option (MCNCO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online

Microcomputers have become an integral part of today's office and home environment. The Network Technician option teaches the foundation skills necessary to work in and support a networked environment.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 128

Major Requirements for Microcomputer Technology..... listed on page 128

Option Requirements for Network Technician .....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access and Monitoring	4.5
Choose one of the following courses:		
ELEC 1400	Wireless Network Infrastructure	9.0
INFO 2261	Software Applications Support	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2801	Networking Security	4.5

Below is the suggested format of classes for the student planning a career as a network technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1400	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1120	4.5	INFO 1401	4.5
Gen. Ed.	4.5	INFO 1311	4.5	Gen. Ed.	4.5–4.0	INFO Elective	4.5
	13.5		13.5		13.5–14.0		13.5

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER TECHNOLOGY – Security Technician Option (MCSTO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, Online

This certificate program emphasizes the issues and emerging information and management concepts related to computer security. The student is provided with a strong technical foundation to understand, analyze, identify, plan and apply the knowledge and skills learned to defend a network.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 128

Major Requirements for Microcomputer Technology..... listed on page 128

Option Requirements for Security Technician .....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 2362	Web and Server Applications Security	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2806	Network Attacks, Intrusions and Penetration Testing	4.5
INFO 2808	Boundary Protection	4.5
INFO 2809	Information Systems, Forensics and Legal Topics	4.5

Below is the suggested format of classes for the student planning a career as a security technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
Gen. Ed.	4.5	INFO 1002	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
INFO 1001	4.5	INFO 311	4.5	INFO 2362	4.5	INFO 2808	4.5
INFO 1110	4.5	INFO 2805	4.5	INFO 2806	4.5	INFO 2809	4.5
	13.5		13.5		13.5		13.5

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER TECHNOLOGY – Server Technician Option (MCSRO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online

Servers have become an integral part of today's office and home environment. The Server Technician option teaches the foundation skills necessary to support servers.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 128

Major Requirements for Microcomputer Technology..... listed on page 128

Option Requirements for Server Technician .....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 2142	Windows Active Directory	4.5
INFO 2135	Network Infrastructure	4.5
Choose one of the following courses:		
INFO 1400	Hardware, Disaster Recovery and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access and Monitoring	4.5
INFO 2145	Windows Server Administration	4.5
INFO 2801	Networking Security	4.5

Below is the suggested format of classes for the student planning a career as a server technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 2135	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1120	4.5	INFO 2142	4.5
Gen. Ed.	4.5	INFO 1311	4.5	Gen. Ed.	4.5	Elective	4.5
	13.5		13.5		13.5		13.5

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER TECHNOLOGY – Web Author Option (MCWCO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, Online

This certificate prepares the student to successfully create and edit information in the world wide web environment. The student is provided with a strong technical foundation in world wide web and Internet-related technology.

Graduation Requirements	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	18.0
Total Credit Hours Required	**49.5–50.0**

General Education Requirements ..... listed on page 128

Major Requirements for Microcomputer Technology..... listed on page 128

Option Requirements for Web Author .....18.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1315	Interface Design	4.5
INFO 1316	Dreamweaver I	4.5
INFO 1318	Fireworks I	4.5
INFO 2340	Internet Scripting and Databases◇	4.5

◇Additional prerequisite(s) may be required.

Below is the suggested format of classes for the student planning a career as a web author after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
Gen. Ed.	4.5	INFO 1002	4.5	INFO 1315	4.5	INFO 1316	4.5
INFO 1001	4.5	INFO 1311	4.5	INFO 1318	4.5	INFO 2340	4.5
INFO 1110	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5		9.0
	13.5		13.5		13.5		

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

MICROCOMPUTER TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Fort Omaha Campus, Online

Network Security and Computer Forensics (MNSS1)

Network security has become an important part of the corporate environment to protect networked systems from intrusion and investigate possible intrusions. This program is designed to teach the skills necessary to secure networked systems to protect information and coordinate efforts with authorities to investigate intrusions for protection.

Requirements for Network Security Diploma .....27.0 Credit Hrs.

Courses			Credit Hrs.
INFO	2362	Web and Server Applications Security	4.5
INFO	2805	Network and Information Security Basics	4.5
INFO	2806	Network Attacks, Intrusions and Penetration Testing	4.5
INFO	2808	Boundary Protection	4.5
INFO	2809	Information Systems, Forensics and Legal Topics	4.5
INFO	2810	Security Planning: Assessment, Analysis and Implementation	4.5

Transitional Object-Oriented Programming (MTOSD)

The Transitional Object-Oriented Programming Specialist Diploma is designed to provide traditional programmers with training in the object-oriented programming environment. Upon completion, the student will program in one language and will be able to expand to other object-oriented programming languages.

Requirements for Object-Oriented Diploma .....25.5 Credit Hrs.

Courses			Credit Hrs.
INFO	1007	Introduction to Transitional Object-Oriented Programming	3
INFO	1620	Database Design, Implementation and Management ◈	4.5
INFO	2351	Introduction to XML ◈	4.5
INFO	2630	Structured Query Language (SQL) ◈	4.5
Choose one of the following pair of languages:			
INFO	1521	Java Programming I ◈ **AND**	4.5
INFO	1531	Java Programming II ◈	4.5
OR			
INFO	1523	Visual Basic.Net I ◈ **AND**	4.5
INFO	1533	Visual Basic.Net II ◈	4.5
OR			
INFO	1526	Visual C# Programming I ◈ **AND**	4.5
INFO	1536	Visual C# Programming II ◈	4.5

◈ Additional prerequisite(s) may be required.

ORACLE DATABASE SYSTEMS (ODBCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Oracle Database Systems Certificate curriculum is designed to provide the student with a strong foundation in various aspects of the Oracle Database Management System. The certificate program helps to prepare the student for the Oracle Certified Associate (OCA) certification.

Graduation Requirements	
General Education	13.5–14.0
Major Requirements	36.5
Total Credit Hours Required	**50.0–50.5**

General Education Requirements ..... 13.5–14.0 Credit Hrs.

Communications	**Credit Hrs.**	**Other**	**Credit Hrs.**
English Level I (see page 40)	4.5	INFO 1001 Information Systems and Literacy	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1420 College Algebra ◇ OR MATH 1220 Business Math	4.5–5		

Major Requirements for Database Systems .....36.5 Credit Hrs.

Courses		**Credit Hrs.**
INFO 1003	Introduction to Computer Programming	5
INFO 1620	Database Design, Implementation and Management	4.5
INFO 2632	Oracle SQL	4.5
INFO 2640	Oracle PL/SQL Programming ◇	4.5
INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development	4.5
Choose two of the following courses:		
INFO 1002	Introduction to Information Technology	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1311	XHTML and CSS ◇	4.5
INFO 1521	Java Programming I	4.5
INFO 2340	Internet Scripting and Databases ◇	4.5

◇ Additional prerequisite(s) may be required.

Below is the suggested format of classes for the student planning a career in Oracle Database Systems after two years of study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1003	4.5	INFO 1620	4.5	INFO 2632	4.5
INFO 1001	4.5	MATH Requirement	4.5–5	INFO choice	4.5	INFO choice	4.5
	9.0		9–9.5		9.0		9.0
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
English requirement	4.5	INFO 2651	4.5	INFO 2740	4.5		
INFO 2640	4.5		4.5		4.5		
	9.0						

COMPUTING / ELECTRONICS

UNIX/LINUX OPERATING SYSTEMS (LNXSC)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, South Omaha Campus

UNIX and Linux are very popular operating systems in the Information world today. This certificate teaches the skill in using and operating these operating systems.

Graduation Requirements	
General Education	18.0-18.5
Major Requirements	32.0
Total Credit Hours Required	**50.0–50.5**

General Education Requirements.....18.0–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇ **OR** MATH 1220 Business Math	4.5–5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for UNIX/Linux Operating Systems... 32.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5
INFO 1110	Operating System I	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1113	AIX Operating System I	4.5
INFO 1120	Operating Systems II	4.5
INFO 1121	Linux Operating System II	4.5
INFO 2122	Unix Scripting I	4.5

Below is the suggested format of classes for the student planning a career in UNIX/Linux operating systems.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
INFO 1001	4.5	INFO 1110	4.5	INFO 1111	4.5
INFO 1003	5.0	INFO 1113	4.5	MATH requirement	4.5–5.0
Gen. Ed.	4.5	Gen. Ed.	4.5		9.0–9.5
	14.0		13.5		
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
INFO 1121	4.5	INFO 1123	4.5	INFO 1133	4.5
INFO 2122	4.5		4.5		4.5
	9.0				

CULINARY/ HOSPITALITY/ HORTICULTURE

DEGREES IN THIS SECTION:

- Institute for the Culinary Arts
  - Culinary Arts Management
  - Hospitality and Restaurant Leadership
- Horticulture

OTHER RELATED DEGREES:

- Liberal Arts/Academic Transfer
  - Associate in Science
- Pre-Agriculture and Pre-Dietetics *(see Transfer Programs)*

INSTITUTE FOR THE CULINARY ARTS

Award: Associate in Applied Science Degree

I. Culinary Arts and Management

The Culinary Arts and Management Program offers five options that prepare students for a variety of careers in food service.

A. Options that focus on culinary and cooking preparation:

1. **Culinary Arts [1] (106.0 credit hours)** ..... Prepares the student for a career as a chef, sous chef or culinarian.

2. **Chef's Apprenticeship [1] (118.0 credit hours)**..... Prepares the student for a career as a chef or culinarian through practice with a chef for eight quarters in a classically structured kitchen and classwork.

B. Options that focus on food management:

3. **Culinary Management [1] (104.5 credit hours)** ..... Prepares the student for a career as a kitchen manager or supervisor.

C. Bakery and Pastry Option:

4. **Baking and Pastry [1] (105.0–105.5 credit hours)** ..... Prepares the student for a career as a professional baker or pastry chef.

D. Research Chef Option:

5. **Culinology Transfer [2] (107.5–109.0 credit hours)**..... Prepares the student to work in a research lab as part of a food development team. Success in the option requires that the student have a strong interest in both foods and sciences. This degree option is transferable to the University of Nebraska–Lincoln.

II. Hospitality and Restaurant Leadership

The Hospitality and Restaurant Leadership Program offers three options that prepare students for a variety of leadership roles in the hospitality industry.

A. **Food and Beverage Transfer (102.0 credit hours)** ..... Prepares the student for a career as a supervisor or manager in a variety of food and beverage establishments.

B. **Lodging, Convention and Meeting Planning Transfer (97.0 credit hours)** ..... Prepare the student for a career in event planning within the hospitality industry and a variety of lodging establishments.

C. **Small Business Practices in Hospitality (104.0 credit hours)**.. Prepares the student for a career as an entrepreneur wanting to own their own business in the hospitality industry.

III. Pre-Dietetics Transfer

This degree provides the student with the first two-years of studies required to pursue advanced studies in dietetics and transfers to the University of Nebraska–Lincoln for completion of the Bachelor's Degree in Dietetics. For more information on degree requirements, visitwww.mccneb.edu/articulation

[1] These options are accredited by the American Culinary Federation Education Institute Accrediting Commission.
[2] This option is recognized by the Research Chefs Association and is transferable to the University of Nebraska–Lincoln.

Your credits and degree may transfer to many other colleges, including the University of Nebraska–Lincoln and Bellevue University.

Contact (402) 457-2510 to schedule an appointment to discuss your career and educational goals.

CULINARY ARTS AND MANAGEMENT

Award: Associate of Applied Science
Program location: Fort Omaha Campus

There are several options available for this degree. Degree requirements are listed below, and additional requirements for the desired option(s) are detailed on the following page.

Graduation Requirements	
General Education	27.0
Major Requirements	35.0
Option Requirements	42.5–56.0
Total Credit Hours Required	**104.5–118.0**

General Education Requirements.....27.0 Credit Hrs.*

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40) English Level II (see page 40) ENGL 1220 Technical Writing and ENGL 1240 Oral and Written Reports is recommended. Transfer students select ENGL 1010 and ENGL 1020	4.5 4.5	Humanities/Social Sciences (see page 40) Culinology transfer students select ECON 1000 **or** ECON 1100 for Social Sciences requirement.	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics Culinology transfer students select MATH 1420	4.5	HMRL 1010 Human Relations Skills INFO 1001 Information Systems and Literacy	4.5 4.5

*Culinary-focused general education courses are designated in the class schedule by the section number CA.

Major Requirements for Culinary Arts and Management... 35.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 1210	Baking Basics	4
CHRM 1999	Skills Demonstration	2
CHRM 2000	Stagaire	2
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2480	Purchasing	4.5
CHRM 2999	Portfolio Development	2
HORT 1410	Food Cultivation	3

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

Option Requirements for Culinary Arts and Management ..... 42.5–56.0 Credit Hrs.

The Culinary Arts and Management (CAAS1) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Culinary Arts 44 credit hours	**Bakery and Pastry** 47 – 47.5 credit hours
Culinary Management 42.5 credit hours	**Chef's Apprenticeship** 56 credit hours
Culinology™ Transfer 49 credit hours	

Critical Advising Note: Students entering Culinary Arts programs that have assessed at college-level in all areas and/or completed any recommended developmental courses should register for CHRM 1000, CHRM 1020, CHRM 1030 and MATH 1220 in his/her first term of study. Approved uniforms, supplies and text are required by the first day of CHRM 1030.

Culinary Arts and Management Options

Culinary Arts Option (CACA1)	44
CHRM 1110 Vegetable, Starch and Protein Cookery	4
CHRM 1120 Soup and Sauce Cookery	4
CHRM 1130 Protein Fabrication	3
CHRM 1140 A la Carte Cookery	3
CHRM 2110 Quantity Production	4.5
CHRM 2120 Garde Manger Buffets	4.5
CHRM 2130 Fine Dining	4.5
CHRM 2470 Hospitality Supervision	4.5
CHRM 2550 Table Service	4.5
CHRM 2980 Student Manager	4.5
CHRM 2981 Internship	3

Bakery and Pastry Option (CABA2)	47–47.5
CHRM 1220 Pastries	4
CHRM 1250 Artisan Bread	4
CHRM 1260 Cakes	4
CHRM 2230 Baking Production	4.5
CHRM 2250 International Breads	3
CHRM 2270 Chocolate, Sugar and Decorations	3
CHRM 2280 Plated Desserts	4.5
CHRM 2470 Hospitality Supervision	4.5
CHRM 2981 Internship	3
CHRM 2982 Bakery Student Manager	4.5
Electives	4–4.5
Choose one from the following:	
CHRM 2550 Table Service	4.5
CHRM 2360 Physiology of Flavor	4.5
CHRM 1120 Soup and Sauce Cookery	4

Culinary Management Option (CACM1)	42.5
CHRM 1110 Vegetable, Starch and Protein Cookery	4
CHRM 1120 Soup and Sauce Cookery	4
CHRM 1130 Protein Fabrication	3
CHRM 1140 A la Carte Cookery	3
CHRM 2450 Legal Basics of CHRM	3
CHRM 2465 Foodservice Financial Basics	4.5
CHRM 2470 Hospitality Supervision	4.5
CHRM 2475 Leadership Principles	4.5
CHRM 2560 Beverage Management	4.5
CHRM 2980 Student Manager	4.5
CHRM 2981 Internship	3

Chef's Apprenticeship Option (CACH1)	56
CHRM 1110 Vegetable, Starch and Protein Cookery	4
CHRM 1120 Soup and Sauce Cookery	4
CHRM 1130 Protein Fabrication	3
CHRM 1140 A la Carte Cookery	3
CHRM 1991 Apprenticeship Practicum I	3
CHRM 1992 Apprenticeship Practicum II	3
CHRM 1993 Apprenticeship Practicum III	3
CHRM 1994 Apprenticeship Practicum IV	3
CHRM 2120 Garde Manger Buffets	4.5
CHRM 2130 Fine Dining	4.5
CHRM 2470 Hospitality Supervision	4.5
CHRM 2550 Table Service	4.5
CHRM 2995 Apprenticeship Practicum V	3
CHRM 2996 Apprenticeship Practicum VI	3
CHRM 2997 Apprenticeship Practicum VII	3
CHRM 2998 Apprenticeship Practicum VIII	3

Culinary Research /Culinology Transfer (CACR1)	49
CHEM 1212 General Chemistry I: Accelerated	6
CHRM 1110 Vegetable, Starch and Protein Cookery	4
CHRM 1120 Soup and Sauce Cookery	4
CHRM 1130 Protein Fabrication	3
CHRM 1140 A la Carte Cookery	3
CHRM 2360 Physiology of Flavor	4.5
CHRM 2370 Food Science★	4.5
CHRM 2380 Sensory Science★	4.5
CHRM 2390 Research and Development of Food Products★	4.5
CHRM 2981 Internship	3
Electives	3–4.5
Choose one from the following:	
CHRM 2120 Garde Manger	4.5
CHRM 2130 Fine Dining	4.5
CHRM 2550 Table Service	4.5

★ CHRM 2370, CHRM 2380 and CHRM 2390 should be taken in sequence starting in the Fall quarter.

See advising note in CHEM 1212 concerning the accelerated format: Students expecting to transfer to the University of Nebraska–Lincoln for Culinology should also take CHEM 1220.

After completion of the Culinology degree option at MCC, the RCA strongly recommends that students seeking to become a Research Chef achieve a four-year degree from the University of Nebraska or other university.

General Course Availability Most courses in Culinary Arts repeat quarterly so that students may join the program during any quarter; however, some courses are offered only during select quarters. Consider those listed below when developing an academic plan.				
Fall Only	**Winter Only**	**Spring Only**	**Fall, Winter and Spring**	**Summer Only**
1060	1260	1060	1001	1250
1220	2250	1220	2130	1260
1250	2380	2140	2280	2270
2360	2450	2360	2120	2450
2475	2465	2390	2230	2465
2560	2610	2475	2550	2910/2920
2630		2560	2982	297A
2370		2620		
		2370		

CULINARY ARTS AND MANAGEMENT (CAMCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Culinary Arts Certificate prepares the student for entry-level skilled positions in the food industry. It provides basic skills for a variety of opportunities within the industry.

Graduation Requirements	
General Education	13.5
Major Requirements	37.5
Total Credit Hours Required	**51.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 40)	4.5	Mathematics (see page 40)	4.5
Humanities/Social Sciences	Credit Hrs.		
Humanities/Social Sciences (see page 40)	4.5		

Major Requirements for Culinary Arts .....37.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 1110	Vegetable, Starch and Protein Cookery	4
CHRM 1120	Soup and Sauce Cookery	4
CHRM 1130	Protein Fabrication	3
CHRM 1140	A la Carte Cookery	3
CHRM 1210	Baking Basics	4
CHRM 1999	Skills Demonstration	2
CHRM 2350	Nutrition	4.5
CHRM 2470	Hospitality Supervision	4.5

CULINARY ARTS AND MANAGEMENT – Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

CULINARY ARTS FOUNDATIONS (CAFSD)

Also referred to as the first-year diploma or basic Culinary Arts diploma. Course prerequisites may be required to begin the specialization.

Requirements for Culinary Arts Foundations Diploma....28.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 1110	Vegetable, Starch and Protein Cookery	4
CHRM 1120	Soup and Sauce Cookery	4
CHRM 1130	Protein Fabrication	3
CHRM 1140	A la Carte Cookery	3
CHRM 1210	Baking Basics	4
CHRM 1999	Skills Demonstration	2

SPECIALIZATION IN CULINARY MANAGEMENT (CSMSD)

This is for the professional in the business that needs to develop management skills to be an effective manager or supervisor. Course prerequisites may be required to begin the specialization.

Requirements for Culinary Management Diploma .....25.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 2450	Legal Basics of CHRM	3
CHRM 2460	Cost Management	4.5
CHRM 2465	Foodservice Financial Basics	4.5
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership Principles	4.5
SPCH 1110	Public Speaking	4.5

BAKING AND PASTRY FOUNDATIONS (CBFS1)

Also referred to as the first-year baking diploma or the basic baking diploma. Course prerequisites may be required to begin the specialization.

Requirements for Baking and Pastry Foundations Diploma.... 25.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 1210	Baking Basics	4
CHRM 1220	Pastries	4
CHRM 1250	Artisan Bread	3
CHRM 1260	Cakes	4
CHRM 1999	Skills Demonstration	2

SPECIALIZATION IN SERVICE (CASSD)

This is for the student that wishes to acquire skills in dining room supervision. Course prerequisites are required to begin the specialization.

Requirements for Service Diploma.....25.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2550	Table Service	4.5
CHRM 2560	Beverage Management	3
INFO 1010	Customer Service Skills	4.5

CULINARY ENTREPRENEURSHIP (CAESD)

This specialist diploma is designed for those culinary professionals who desire to own their own business and to be their own boss. Course prerequisites may be required to begin the specialization.

Requirements for Culinary Entrepreneurship Diploma..... 27.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 2460	Cost Management	4.5
CHRM 2465	Foodservice Financial Basics	4.5
CHRM 2480	Purchasing	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5

MANAGEFIRST SPECIALIST DIPLOMA (CAMSD)

This specialist diploma is designed for those culinary professionals as an opportunity to further their education, enhance their career, improve customer service and stay competitive in the marketplace. To receive the National Restaurant Association's ManageFirst Credential, additional courses are required. Contact (402) 457-2510 for complete details.

Requirements for Culinary ManageFirst Diploma.....29.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership	4.5
CHRM 2480	Purchasing	4.5

CULINARY COMPETITION DIPLOMA (CACSD)

Designed to recognize those individuals that dedicate themselves to refining and delivering their craft through the rigor of sanctioned culinary competitions.

Requirements for Culinary Competition Diploma .....26.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1020	Sanitation	2
CHRM 1030	Culinary Foundations	4.5
CHRM 1210	Baking Basics	4
CHRM 297A	Competition Training Camp	1
CHRM 2970	Culinary Competition	3
CHRM 2971	Advanced Culinary Competition I	3
CHRM 2972	Advanced Culinary Competition II	3
CHRM 2973	Advanced Culinary Competition III	3
CHRM 2973	Advanced Culinary Competition IV	3

HOSPITALITY AND RESTAURANT LEADERSHIP

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

Upon completion of all requirements for any of the three transfer options included in this degree, the student can apply to the University of Nebraska–Lincoln to pursue a Bachelor's of Science in Hospitality, Restaurant and Tourism Management. Students not wishing to transfer can follow the Small Business Practices in Hospitality option.

Graduation Requirements	
General Education	27.0
Major Requirements	27.5
Course Track Offerings	42.5–49.5
Total Credit Hours Required	**97.0–104.0**

General Education Requirements.....27.0 Credit Hrs.*

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	Transfer options select ECON 1000.	
Transfer options select ENGL 1010 and ENGL 1020.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1310 Intermediate Algebra	4.5	INFO 1001 Information Systems and Literacy	4.5
Transfer options select MATH 1410.			

*Hospitality-focused general education courses are designated in the class schedule by the section number CA.

Major Requirements for Hospitality and Restaurant Leadership.....27.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing ◇	4.5
BSAD 1100	Business Law I	4.5
CHRM 1001	Hospitality Orientation	2
CHRM 2470	Hospitality Supervision	4.5
CHRM 2480	CHRM Purchasing	4.5
CHRM 2550	Table Service	4.5
CHRM 2981	Internship	3

◇ Additional prerequisite(s) may be required.

Requirements for Hospitality and Restaurant Leadership Options.....42.5–49.5

In pursuing the Hospitality and Resturant Leadership Degree, students may select from the menu of options listed below. See the following pages for the specific additional courses required within each option.

Food and Beverage Transfer 47.5 credit hours	**Lodging, Convention and Meeting Planning Transfer** 42.5 credit hours
Small Business Practices in Hospitality 49.5 credit hours	

Visit MCC's web site for the most current transfer listings at www.mccneb.edu/articulation.

Hospitality and Restaurant Leadership Options

Food and Beverage Transfer (CHFAO) 47.5

This option is designed to provide the educational background for a mid-level supervisor in a variety of food and beverage establishments. This option is designed to transfer to the University of Nebraska–Lincoln.

ACCT	1100	Accounting I	4
ACCT	1110	Accounting II	4
ACCT	1120	Accounting III	4
BSAD	2100	Principles of Management	4.5
CHRM	1020	Sanitation	2
CHRM	1030	Culinary Foundations	4.5
CHRM	1050	Basics of Quantity Production	1.5
CHRM	2465	Foodservice Financial Basics	4.5
CHRM	2610	Event Planning	4.5
ECON	1100	Microeconomics	4.5
MATH	1420	College Algebra	5
PHIL	2030	Introduction to Ethics	4.5

Lodging, Convention and Meeting Planning Transfer (CHLAO) 42.5

This transfer option provides the background to prepare for an event-planning career within the hospitality industry and is designed to transfer to the University of Nebraska–Lincoln.

ACCT	1100	Accounting I	4
ACCT	1110	Accounting II	4
ACCT	1120	Accounting III	4
BSAD	2100	Principles of Management	4.5
CHRM	1050	Basics of Quantity Production	1.5
CHRM	2610	Event Planning	4.5
CHRM	2620	Tourism and Hospitality	3
CHRM	2630	Lodging and Hospitality	3
ECON	1100	Microeconomics	4.5
MATH	1420	College Algebra	5
PHIL	2030	Introduction to Ethics	4.5

Small Business Practices in Hospitality (CHBAO) 49.5

This option provides the educational and entrepreneurial background for students wanting to own their own business in the hospitality industry.

CHRM	1050	Basics of Quantity Production	1.5
CHRM	2460	Cost Management	4.5
CHRM	2465	Foodservice Financial Basics	4.5
CHRM	2475	Leadership Principles	4.5
CHRM	2560	Beverage Management	3
CHRM	2999	Portfolio Development	4.5
ENTR	1050	Introduction to Entrepreneurship	4.5
ENTR	2040	Entrepreneurship Feasibility Study	4.5
ENTR	2050	Marketing for the Entrepreneur	4.5
ENTR	2060	Entrepreneurship Legal Issues	4.5
ENTR	2070	Financial Topics for the Entrepreneur	4.5
ENTR	2090	Entrepreneurship Business Plan	4.5

HORTICULTURE STUDIES

Award: Associate in Applied Science Degree

The Horticulture Program prepares students for careers in the vast horticulture industry. Studies include production, handling sales, harvesting, packaging, shipping, management and maintenance depending upon the option you choose to study.

I. Horticulture Associate Degrees

The Horticulture Program prepares students for careers in nursery or landscaping businesses by focusing on production, handing, sale, selection and maintenance of materials and products.

A. Options that focus on Landscaping:

1. Landscaping (98.5 credit hours) ..... The Landscaping option focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation and maintenance are among the operations and practices covered.

B. Options that focus on Management:

2. Horticulture Management (103.0 credit hours) ..... The Horticulture Management option focuses on the management and production, handling, sale and use of ornamental plants.

C. Options that focus on Floriculture:

3. Floriculture (96.5 credit hours) ..... The Floriculture option focuses on the production, handling, sale and use of greenhouse crops, flower crops, bedding crops and foliage plants. Greenhouse crop production, floral design and interiorscaping are emphasized.

II. Horticulture Certificate (48.0 credit hours)

The Horticulture Certificate prepares students to work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale and use of crops, plants and woody ornamentals. Propagation, planting, cultural practices, harvesting, packaging, shipping and maintenance are all covered.

III. Horticulture Specialist Diploma (30.0 credit hours)

Floriculture
Landscaping
Landscape and Grounds Management
Nursery Management
Organic Gardening
Plant Production and Propagation
Arboriculture

HORTICULTURE

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

The Horticulture Program prepares students for work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale and use of greenhouse crops, flower crops, bedding crops, foliage plants, woody ornamentals, propagation, planting, cultural practices, harvesting, packaging, shipping and maintenance.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	25.0–30.0
Total Credit Hours Required	**97.0–102.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Horticulture .....45.0 Credit Hrs.

Courses		Credit Hrs.
BIOS 1410	The Biology of Lower Plants	4.5
HORT 1100	Introduction to Horticulture	6
HORT 1110	Perennials: Culture and Identification	3
HORT 1111	Vegetable and Herb Gardening	3
HORT 1112	Annuals: Culture and Identification	3
HORT 1113	Turfgrass Management	3
HORT 2120	Plant Propagation by Seed	3
HORT 2121	Vegetative Plant Propagation	3
HORT 2130	Horticulture Business Operations	4.5
HORT 2216	Horticulture Diseases	4.5
HORT 2217	Horticulture Insects	4.5
HORT 2981	Internship	3

The student interested in a horticulture option should consult with faculty or Student Services when planning his/her studies.

The student must have completed BIOS 2410 and BIOS 2510 before taking HORT 2120.

Option Requirements for Horticulture .....25.0–30.0 Credit Hrs.

The Horticulture (HOAAS) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Floriculture	Landscaping	Horticulture Management
25 credit hours	30 credit hours	30 credit hours

HORTICULTURE – Floriculture (HOFLO)

Award: Horticulture Associate in Applied Science Degree
Program location: Fort Omaha Campus

The Floriculture option focuses on the production, handling, sale and use of greenhouse crops, flower crops, bedding crops and foliage plants. Greenhouse crop production, floral design and indoor use of ornamental plants are emphasized.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	25.0
Total Credit Hours Required	**97.0**

General Education Requirements ..... listed on page 148

Major Requirements for Horticulture ..... listed on page 148

Option Requirements for Floriculture .....25.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1213	Ornamental Grass: Culture and Identification	3
HORT 1215	Interiorscaping and Houseplants	4
HORT 1300	Floral Design I	3
HORT 1310	Floral Design II	3
HORT 1320	Floral Design III	3
HORT 1650	Therapeutic Horticulture	3
HORT 2530	Greenhouse Crop Production	3
HORT 2540	Flower Shop Operations	3

HORTICULTURE – Landscaping (HOLAO)

Award: Horticulture Associate in Applied Science Degree
Program location: Fort Omaha Campus

The Landscaping option focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation and maintenance are among the operations and practices covered.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	30.0
Total Credit Hours Required	**102.0**

General Education Requirements ..... listed on page 148

Major Requirements for Horticulture ..... listed on page 148

Option Requirements for Landscaping.....30.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 2420	Landscape Construction	3
HORT 2430	Residential Landscaping	3
HORT 2440	Advanced Landscaping	3
HORT 2521	Managing the Landscape	3
HORT 2522	Landscapes: Ecology and Sustainability	3
HORT 2523	Landscapes: Environmental	3
HORT 2560	Computer Landscaping Design	3

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

HORTICULTURE – Horticulture Management (HONM1)

Award: Horticulture Associate in Applied Science Degree
Program location: Fort Omaha Campus

The Horticulture Management option focuses on the production, handling, sale and use of woody ornamental plants. Propagation, planting, cultural practices, harvesting, packaging and shipping operations are covered as they relate to a garden shop or nursery.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	30.0
Total Credit Hours Required	**102.0**

General Education Requirements ..... listed on page 148

Major Requirements for Horticulture ..... listed on page 148

Option Requirements for Horticulture Management .... 30.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 1213	Ornamental Grass: Culture and Identification	3
HORT 1214	Fruits: Culture and Identification	3
HORT 2520	Nursery and Garden Center Operations	3
HORT 2521	Managing the Landscape	3
HORT 2522	Landscapes: Ecology and Sustainability	3
HORT 2523	Landscapes: Environmental	3
HORT 2560	Computer Landscaping Design	3

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

HORTICULTURE (HORC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

The Horticulture Program prepares students for work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale and use of greenhouse crops, flower crops, bedding crops, foliage plants, woody ornamentals, propagation, planting, cultural practices, harvesting, packaging, shipping and maintenance.

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 40)	4.5	Mathematics (see page 40)	4.5
Natural Sciences	**Credit Hrs.**		
BIOS 1410 Biology of Lower Plants	4.5		

Major Requirements for Horticulture .....36.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1110	Perennials: Culture and Identification	3
HORT 1111	Vegetable and Herb Gardening	3
HORT 1112	Annuals: Culture and Identification	3
HORT 1113	Turfgrass Management	3
HORT 2120	Plant Propagation by Seed	3
HORT 2121	Vegetative Plant Propagation	3
HORT 2216	Horticulture Diseases	4.5
HORT 2217	Horticulture Insects	4.5
HORT 2981	Internship	3

General Course Availability
Most courses in Horticulture repeat quarterly so that students may join the program during any quarter; however, some courses are offered only during select quarters. Consider those listed below when developing an academic plan.

Fall Only	Winter Only	Spring Only	Fall, Winter and Spring	Summer Only
1110	1211	1111	1100	1100
1210	2121	1112	1214	1111
2120	2440	1113	1215	1112
2430	2530	1212	1300	1113
		1213	1310	
		2420	1320	
		2520	1650	
		2530	2521	
			2522	
			2523	
			2540	

HORTICULTURE – Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

FLORICULTURE (HOFSD)

The student obtaining this specialist diploma will have a basic knowledge of floral design. The student will be proficient in designing fresh, dried or silk arrangements and specialty floral design topics.

Requirements for Floriculture Diploma.....25.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1215	Interiorscaping and Houseplants	4
HORT 1300	Floral Design I	3
HORT 1310	Floral Design II	3
HORT 1320	Floral Design III	3
HORT 1650	Therapeutic Horticulture	3
HORT 2540	Flowershop Operations	3

LANDSCAPING (HOLSD)

This specialist diploma focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation and maintenance are the main operations and practices covered.

Requirements for Landscaping Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1110	Perennials: Culture and Identification	3
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 2420	Landscape Construction	3
HORT 2430	Residential Landscaping	3
HORT 2440	Advanced Landscaping	3

LANDSCAPE AND GROUNDS MANAGEMENT (HLGSD)

This specialist diploma focuses on property management, studying both the landscape and the grounds areas. The students will study turf grass, fertilizers, soils, water, ecosystems, design concepts, design history, pruning, pests and water gardening.

Requirements for Landscape and Grounds Management Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 2521	Managing the Landscape	3
HORT 2522	Landscapes: Ecology and Sustainability	3
HORT 2523	Landscapes: Environmental	3

NURSERY MANAGEMENT (HNMSD)

The student obtaining this specialist diploma will be prepared to work in the nursery management field.

Requirements for Nursery Management Diploma.....28.5 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 1214	Fruits: Culture and Identification	3
HORT 2130	Horticulture Business Operations	4.5
HORT 2420	Landscape Construction	3
HORT 2520	Nursery and Garden Center Operations	3

ORGANIC GARDENING (HOGSD)

The student obtaining this specialist diploma will learn the principles of organic and sustainable gardening.

Requirements for Organic Gardening Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1111	Vegetable and Herb Gardening	3
HORT 1112	Annuals: Culture and Identification	3
HORT 1214	Fruits: Culture and Identification	3
HORT 1410	Food Cultivation	3
HORT 2216	Horticulture Diseases	4.5
HORT 2217	Horticulture Insects	4.5

ARBORICULTURE (HOASD)

The student obtaining this specialist diploma will be prepared to work in the nursery management field.

Requirements for Arboriculture Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 1213	Ornamental Grass: Culture and Identification	3
HORT 2216	Horticulture Diseases	4.5
HORT 2217	Horticulture Insects	4.5

PLANT PRODUCTION AND PROPAGATION (HOPSD)

The student obtaining this specialist diploma will study plant production.

Requirements for Plant Production and Propagation Diploma ... 27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1112	Annuals: Culture and Identification	3
HORT 2120	Plant Propagation by Seed	3
HORT 2121	Vegetative Plant Propagation	3
HORT 2530	Greenhouse Crop Production	3
HORT 2216	Horticulture Diseases	4.5
HORT 2217	Horticulture Insects	4.5

PROFESSIONAL LANDSCAPE DESIGN (HODSD)

The student obtaining this specialist diploma will study landscape and design.

Requirements for Professional Landscape Design Diploma ..... 27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6
HORT 1210	Trees: Culture and Identification	3
HORT 1211	Evergreens and Groundcovers: Culture and Identification	3
HORT 1212	Shrubs: Culture and Identification	3
HORT 2420	Landscape Construction	3
HORT 2430	Residential Landscaping	3
HORT 2440	Advanced Landscaping	3
HORT 2560	Computer Landscaping Design	3

HEALTH

DEGREES IN THIS SECTION:

- Dental Assisting
- Nursing – Associate Degree
- Nursing – Licensed Practical Nurse
- Professional Health Studies
  - EMT – Paramedic
- Respiratory Care Technology

OTHER RELATED DEGREES:

- Liberal Arts/Academic Transfer
  - Associate in Science (see *Transfer Programs*)
- Medical Office Professional (see *Business/Office*)

DENTAL ASSISTING (DEACE)★

Award: Certificate of Achievement
Program location: South Omaha Campus

Program objectives for the Dental Assisting Program include the following: basic knowledge of all facets of dental assisting, a strong background in the care and restoration of the oral cavity and a working knowledge of all chairside and laboratory equipment and its care.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	68.0
Total Credit Hours Required	**81.5**

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1210 Applied Communications	4.5	PSYC 1000 Psychology for Everyday Living **OR** PSYC 1010 Introduction to Psychology	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Any 1000 level of Mathematics **OR** MATH 1240 Business Mathematics **OR** MATH 1310 Intermediate Algebra*	4.5		

*MATH 1310 or higher should be taken by students seeking the Professional Studies Option or by students who want a transfer math course.

Major Requirements for Dental Assisting. .....68.0 Credit Hrs.

Courses		Credit Hrs.
DENT 1000	Introduction to Dental Assisting	2
DENT 1020	Dental Office Procedures	3
DENT 1100	Dental Anatomy	4
DENT 1120	Related Anatomy	2.5
DENT 1140	Dental Pathology and Microbiology	2.5
DENT 1160	Dental Pharmacology	2
DENT 1180	Nutrition and Preventive Dentistry	3
DENT 1200	Dental Materials	5.5
DENT 1230	Dental Specialties I	4
DENT 1240	Dental Specialties II	2
DENT 1260	Infection Control	3
DENT 1280	Dental Office Emergencies	2.5
DENT 1310	Dental Radiology I	2.5
DENT 1320	Dental Radiology II	4
DENT 1350	Chairside Assisting I	4
DENT 1360	Chairside Assisting II	4
DENT 1370	Chairside Assisting III	4
DENT 1991	Clinical Experience I	2.5
DENT 1992	Clinical Experience II	8
DENT 1993	Clinical Seminar	2
HLTH 1000	CPR	1

★ This program has special admission requirements. Contact Student Services for more information and to obtain a current admission information packet or visit the web site at www.mccneb.edu/healthcareers.

The Dental Assisting curriculum is accredited by the Commission on Dental Accreditation for the American Dental Association.

Below is the format for the student planning employment in dental assisting after four quarters of full-time study.

FIRST YEAR							
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
DENT 1000	2.0	DENT 1180	3.0	DENT 1160	2.0	DENT 1020	3.0
DENT 1100	4.0	DENT 1200	5.5	DENT 1240	2.0	DENT 1992	8.0
DENT 1120	2.5	DENT 1230	4.0	DENT 1280	2.5	DENT 1993	2.0
DENT 1140	2.5	DENT 1310	2.5	DENT 1320	4.0	Social Sciences	4.5
DENT 1260	3.0	DENT 1360	4.0	DENT 1370	4.0		17.5
DENT 1350	4.0	HLTH 1000	1.0	DENT 1991	2.5		
ENGL 1210	4.5		20.0	Mathematics	4.5		
	22.5				21.5		

NURSING – PRACTICAL (LPNCE)★

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The licensed practical nurse (LPN) participates with other healthcare team members in the planning, implementation and evaluation of nursing care in a variety of settings. The practical nurse functions under the supervision of a registered nurse or licensed practitioner. The graduate of this program is eligible to write the National Council Licensure Examination (NCLEX-PN) for licensure as a practical nurse. This program is approved by the Nebraska Board of Nursing.

GRADUATION REQUIREMENTS	
General Education	31.5
Major Requirements	35.0
Total Credit Hours Required	**66.5**

General Education Requirements..... 31.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENG 1010 English Composition I	4.5	MATH 1310 Intermediate Algebra	4.5
Social Sciences	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
PSYC 1120 Human Growth and Development	4.5	CHEM 1010 College Chemistry	6
		BIOS 2310 Human Anatomy and Physiology I	6
		BIOS 2320 Human Anatomy and Physiology II	6

Major Requirements for Nursing – Practical.....35.0 Credit Hrs.

Courses		Credit Hrs.
NURS 1110	Adult Nursing I	6
NURS 1510	Concepts of Health Assessment and Therapeutic Interventions	I3.5
NURS 1200	Professional Role of the Nurse I	1
NURS 1300	Mental Health Nursing I	1
NURS 1950	Pharmacology	4
NURS 1120	Adult Nursing II	8
NURS 1400	Family Nursing I	3
NURS 1130	Adult Nursing III	8.5

A sample format for the student planning employment while enrolled full-time in the Practical Nursing Program is at the end of the Nursing section.

★ *MCC's Nursing Programs have special requirements. Contact Student Services for more information and to obtain a current healthcare admission information packet or visit the web site at www.mccneb.edu/healthcareers.*

HEALTH

NURSING – ASSOCIATE DEGREE★ (ASNAS)

Award: Associate in Science in Nursing
Program location: Fort Omaha Campus

All students accepted into the second year must have acquired LPN licensure by the start date.

GRADUATION REQUIREMENTS	
General Education	51.0
1st year (LPN) Major Requirements	35.0
2nd year (RN) Major Requirements	22.0
Total Credit Hours Required	**108.0**

The associate degree nurse has both dependent and independent functions within a variety of healthcare environments throughout the community. This member of the healthcare team is able to select from a variety of therapeutic nursing interventions to provide care for clients. The graduate of this program is eligible to write the National Licensure Examination (NCLEX-RN) for licensure as a registered nurse.

The Associate Degree Nursing Program is approved by the Nebraska Board of Nursing and is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY 10006, phone (800) 669-1656.

General Education Requirements.....51.0★ Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENG 1010 English Composition I	4.5	PSYC 1120 Human Growth and Development	4.5
ENG 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	BIOS 2150 Microbiology\◇	6
		BIOS 2310 Human Anatomy and Physiology I◇	6
		BIOS 2320 Human Anatomy and Physiology II	6
		CHEM 1010 College Chemistry	6

★The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.
◇ Additional prerequisites may be required.

Major Requirements for Nursing – Accociate Degree
(36.0 are earned during first year LPN).....58.0

Courses		Credit Hrs.
NURS 2140	Adult Nursing IV	5
NURS 2150	Adult Nursing V	5
NURS 2210	Professional Role of the Nurse II	1
NURS 2310	Mental Health Nursing II	5
NURS 2410	Family Nursing II	5
NURS 2520	Concepts of Health Assessment and Therapeutic Interventions	8

A sample format for the student planning employment while enrolled full-time in the Associate Degree Nursing Program is at the end of the Nursing section.

FIRST YEAR –Practical Nursing Program

Prerequisites (must be completed prior to the application deadline)

CHEM	1010	6.0
ENGL	1010	4.5
MATH	1310	4.5
PSYC	1120	4.5
HLTH	1000	1.0
		20.5

First Quarter			Second Quarter			Third Quarter		
BIOS	2310	6.0	BIOS	2320	6.0	NURS	1400	3.0
NURS	1110	6.0	NURS	1950	4.0	NURS	1130	8.5
NURS	1200	1.0	NURS	1120	8.0			11.5
NURS	1300	1.0			18.0			
NURS	1510	3.5						
		17.5						

SECOND YEAR – Associate Degree Nursing Program

NOTE: Must be in good standing in MCC's Practical Nursing Program and scheduled to graduate on time or be a graduate from a practical nursing program.

Prerequisites (must be completed prior to the start of the Associate Degree Nursing Program)

BIOS	2150	6.0
INFO	1001	4.5
		10.5

First Quarter			Second Quarter			Third Quarter		
ENGL	1020	4.5	NURS	2140	5.0	HMRL	1010 **OR**	
NURS	2410	5.0	NURS	2310	5.0	HMRL	101A, 101B and 101C	4.5
NURS	2520	1.0			10.0	NURS	2150	5.0
		10.5				NURS	2210	1.0
								10.5

HEALTH

PROFESSIONAL HEALTH STUDIES (PHSAS)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

Numerous and diverse opportunities exist in the area of health careers. This degree provides students with the flexibility to create health career tracks and options based on their personal and professional goals. The degree focuses on career areas as well as general education and presents the student with an associate degree, which allows some latitude in selection of courses in the various health areas. The student should work with an advisor or counselor in planning the completion of this degree.

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	36.0–84.5
Option Requirements	27.0
Total Credit Hours Required	**96.0**

General Education Requirements ..... 33.0 Credit Hrs.

Communications	Credit Hrs.
ENGL 1010 English Composition I	4.5
ENGL 1020 English Composition II	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5
Other	**Credit Hrs.**
HMRL 1010 Human Relations Skills	4.5
INFO 1001 Information Systems and Literacy	4.5

Social Sciences/Natural Science	Credit Hrs.
Natural Science (see page 40)	6.0
Social Sciences (see page 40)	4.5

Major Requirements for a Professional Health Studies Associate Degree..... 36.0 credit hours

Courses		Credit Hrs.
Complete a minimum of 36 credit hours of courses selecting from a maximum of two prefixes related to health fields. The following example demonstrates a possible combination.		
HLTH 1000	CPR	1.0
HLTH 1010	Heart Saver First Aid/AED	1.0
HLTH 1200	Long-Term Care/CNA	6.5
HLTH 1300	Medication Aide/Tech	5.0
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1110	Introduction to Health Management	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1180	Disease Processes	4.5

Requirements for Professional Health Studies Tracks ..... 27.0–66.5 Credit Hrs.

The Professional Health Studies Tracks are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

General Health Studies	EMT – Paramedic	Dental Assisting
27 credit hours	66.5 credit hours	33 credit hours

PROFESSIONAL HEALTH STUDIES – General Health Studies Track (PHSGO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	36.0
Option Requirements	27.0
Total Credit Hours Required	**96.0**

General Education Requirements ..... listed on page 160

Major Requirements for Professional Health Studies ..... listed on page 160

Requirements for General Health Option.....27.0 Credit Hrs.

Courses
Students should choose 27 credit hours from any health-related prefix.

PROFESSIONAL HEALTH STUDIES – EMT – Paramedic Track (PHSPO)

Award: Professional Health Studies Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	33.0
Major Requirements	84.5
Total Credit Hours Required	**117.5**

General Education Requirements ..... listed on page 160

Major Requirements for EMT – Paramedic Option..... 84.5 Credit Hrs.

Courses
Students who successfully complete the EMT – Paramedic Certificate can earn the Professional Health Studies Associate Degree by fulfilling the additional 19.5 general education requirements in addition to the 84.5 hours of program requirements already earned.

PROFESSIONAL HEALTH STUDIES – Dental Assisting Track (PHSDO)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	33.0
Major Requirements	81.0
Total Credit Hours Required	**114.0**

General Education Requirements ..... listed on page 160

Major Requirements for Dental Assisting Track.....81 Credit Hrs.

Courses
Students who successfully complete the Dental Assisting Program can earn the Professional Health Studies Associate Degree by fulfilling the additional 19.5 general education requirements in addition to the 81 hours of program requirements already completed.

PROFESSIONAL HEALTH STUDIES – EMT – Paramedic (PHSPC)

Award: Certificate of Achievement
Program Location: Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	13.5
Major Requirements	84.5
Total Credit Hours Required	**98.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra	4.5		

Major Requirements for EMT – Paramedic ..... 84.5 Credit Hrs.

Courses		Credit Hrs.
HTLH 1000	Cardiopulmonary Resuscitation	1.0
HLTH 1100	EMT – Basic	9.5
HLTH 1120	Paramedic Part 1 of 4	12.0
HLTH 1122	Paramedic Part 2 of 4	12.0
HLTH 1123	Paramedic Field Part 1 of 3	6.5
HLTH 1124	Paramedic Part 3 of 4	12.0
HTLH 1125	Paramedic Field Part 2 of 3	6.5
HLTH 1126	Paramedic Part 4 of 4	12.0
HLTH 1127	Paramedic Field Part 3 of 3	7.0
HLTH 1130	Emergency Medical Services Instructor	6.0

RESPIRATORY CARE TECHNOLOGY (RTAAS)★

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The respiratory therapist provides diagnostic testing, treatment and preventive care to patients with cardiopulmonary disorders under the direct or indirect supervision of a physician utilizing sophisticated biomedical equipment. Upon completion of this program, the student is eligible to take the registry examination in respiratory care administered by the National Board for Respiratory Care.

This program is accredited by the Commission on Accreditation for Respiratory Care, 1248 Harwood Rd., Bedford, TX 76021.

Graduation Requirements	
General Education	33.0
Major Requirements	76.5
Other Requirements	21.5–22.5
Total Credit Hours Required	**31.0–132.0**

General Education Requirements.....33.0* Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Natural Sciences**		**Credit Hrs.**
MATH 1310	Intermediate Algebra	4.5	BIOS 2150	Microbiology ◇	6
Other		**Credit Hrs.**			
HMRL 1010	Human Relations Skills	4.5			
INFO 1001	Information Systems and Literacy	4.5			

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.
◇ Additional prerequisites may be required.

Major Requirements for Respiratory Care Technology.....76.5 Credit Hrs.

Courses		Credit Hrs.
RESP 1000	Orientation to Respiratory Care	3
RESP 1010	Introduction to Respiratory Care Procedures	4.5
RESP 1020	Cardiopulmonary Anatomy and Physiology	4.5
RESP 1030	Respiratory Care Procedures I	4.5
RESP 1031	Current Concepts I	2
RESP 1040	Respiratory Care Procedures II	4.5
RESP 1041	Current Concepts II	2
RESP 1042	Pharmacology for Respiratory Care	3
RESP 1991	Clinical Practicum I	5.5
RESP 1992	Clinical Practicum II	5.5
RESP 1993	Clinical Practicum III	5.5
RESP 2100	Advanced Respiratory Care	4.5
RESP 2101	Current Concepts III	2
RESP 2120	Cardiology and Hemodynamics	3
RESP 2121	Current Concepts IV	2
RESP 2122	Pediatric and Neonatal Respiratory Care	3
RESP 2131	Current Concepts V	2
RESP 2132	Respiratory Care Seminar	4.5
RESP 2994	Clinical Practicum IV	5.5
RESP 2995	Clinical Practicum V	5.5

★ This program has special admission requirements. Contact Student Services or the Respiratory Care Program Director for further information and to obtain a current admission information packet or visit the web site at www.mccneb.edu/health careers.

Other Requirements for Respiratory Care Technology.....21.5–22.5

Courses		Credit Hrs.
BIOS 1010	Introduction to Biology **OR**	
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 1310	Survey of Human Anatomy and Physiology **OR**	
BIOS 2320	Human Anatomy and Physiology II	5–6.0
CHEM 1010	College Chemistry	6.0
PHYS 1010	Applied Physics	4.5

Below is the format of classes for the student planning a career as a respiratory therapist after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
BIOS 1010 **OR**		BIOS 1010 **OR**		INFO 1001	4.5	BIOS 2150	6.0
BIOS 2310	6.0	BIOS 2310	5.0–6.0	PSYC 1010	4.5	RESP 1030	4.5
CHEM 1010	6.0	ENGL 1010	4.5	RESP 1010	4.5	RESP 1031	2.0
MATH 1310	4.5	PHYS 1010	4.5	RESP 1020	4.5	RESP 1991	5.5
	16.5	RESP 1000	3.0		18.0		18.0
			17.0–18.0				
SECOND YEAR							
Fifth Quarter (Summer)		**Sixth Quarter (Fall)**		**Seventh Quarter (Winter)**		**Eighth Quarter (Spring)**	
RESP 1040	4.5	HMRL 1010	4.5	RESP 2120	3.0	ENGL 1020	4.5
RESP 1041	2.0	RESP 1993	5.5	RESP 2121	2.0	RESP 2131	2.0
RESP 1042	3.0	RESP 2100	4.5	RESP 2122	3.0	RESP 2132	4.5
RESP 1992	5.5	RESP 2101	2.0	RESP 2994	5.5	RESP 2995	5.5
	15.0		16.5		13.5		16.5

HEALTH

INDUSTRIAL/ TECHNICAL

DEGREES IN THIS SECTION:

- Air Conditioning, Refrigeration and Heating Technology
- Architectural Design Technology
- Auto Collision Technology
- Automotive Technology
- Civil Engineering Technology
- Construction Technology
- Diesel Service Technology
  - CDL Truck Driving
- Electrical Apprenticeship
- Electrical Technology
- Industrial and Commercial Trades
- Mechanical Design Technology
- Plumbing Apprenticeship
- Utility Line Technician
- Welding Technology

OTHER RELATED DEGREES:

- Electronics Technology (see *Computing/Electronics*)

AIR CONDITIONING, REFRIGERATION AND HEATING TECHNOLOGY (AHAAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

The Air Conditioning, Refrigeration and Heating Technology Program provides the student with a diversified background in air conditioning, refrigeration and heating systems. The program combines classwork with hands-on activities to facilitate learning and understanding of these fields. Potential employment opportunities exist in local air conditioning, refrigeration and heating companies, both large and small.

Graduation Requirements	
General Education	27.0
Major Requirements	70.0
Total Credit Hours Required	**97.0**

General Education Requirements..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Air Conditioning, Refrigeration and Heating Technology.....70.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1050	Bookkeeping	3
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6
HVAC 1020	Refrigeration Shop Practices	3
HVAC 1210	Gas Heat	3
HVAC 1211	Electric Heat	3
HVAC 1220	Oil Burners	3
HVAC 1330	Commercial Refrigeration Installation	3
HVAC 1331	Commercial Refrigeration Service	3
HVAC 1500	Air Conditioning, Domestic Refrigeration and Appliance Repair	3
HVAC 1540	All Weather Systems (Conventional)	3
HVAC 2220	All Weather Systems (Heat Pumps)	3
HVAC 2221	Installation and Service Problems	3
HVAC 2320	Advanced Commercial Refrigeration	3
HVAC 2400	BluePrintreading for Air Conditioning	3
HVAC 2420	Advanced Residential Air Conditioning	3
HVAC 2421	Advanced Commercial Air Conditioning	3
HVAC 2550	Air Conditioning (Commercial)	3
HVAC 2560	Sheet Metal Layout	3
HVAC 2570	Automated Building Controls	3

Choose 4 credits of electives.

AIR CONDITIONING, REFRIGERATION AND HEATING TECHNOLOGY (AHRCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Air Conditioning, Refrigeration and Heating Technology Certificate provides the student with practical experience in servicing and installing air conditioning, refrigeration and heating equipment. Related instruction is provided to enable the student to understand the basic principles involved in construction and operation of the equipment. Upon completion of the program, potential employment opportunities exist with companies that specialize in air conditioning, refrigeration and heating service and installation.

Graduation Requirements	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)	4.5		

Major Requirements for Air Conditioning, Refrigeration and Heating Technology.....36.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6
HVAC 1020	Refrigeration Shop Practices	3
HVAC 1210	Gas Heat	3
HVAC 1211	Electric Heat	3
HVAC 1220	Oil Burners	3
HVAC 1330	Commercial Refrigeration Installation	3
HVAC 1331	Commercial Refrigeration Service	3
HVAC 1500	Air Conditioning, Domestic Refrigeration and Appliance Repair	3
HVAC 1540	All-Weather Systems (Conventional)	3

AIR CONDITIONING, REFRIGERATION AND HEATING TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

AIR CONDITIONING (AACSD)

Students that complete this specialist diploma will be able to troubleshoot, repair and service various types of air conditioning systems. Electrical theory, bluePrintreading and heat loss/heat gain are covered in this diploma.

Requirements for Air Conditioning Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1210	Gas Heat	3
HVAC 1540	All-Weather Systems (Conventional)	3
HVAC 2220	All-Weather Systems (Heat Pumps)	3
HVAC 2400	BluePrintreading for Air Conditioning	3
HVAC 2420	Advanced Residential Air Conditioning	3
HVAC 2421	Advanced Commercial Air Conditioning	3
HVAC 2550	Air Conditioning (Commercial)	3

HEAT PUMP (AHPSD)

Students that complete the Heat Pump Specialist Diploma will be able to troubleshoot, service and repair systems. Student will also have working knowledge of electric heat and gas heat used as back-up heat for the heat pump.

Requirements for Heat Pump Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6
HVAC 1020	Refrigeration Shop Practices	3
HVAC 1210	Gas Heat	3
HVAC 1211	Electric Heat	3
HVAC 2220	All Weather Systems (Heat Pumps)	3

HEAT SYSTEMS (AHSSD)

Students that complete the Heat Systems Specialist Diploma will have electrical knowledge for gas heating, oil burner heating, electric heat, practice insulation and service of various systems. The student will also study computer-controlled environments and write computer programs for changing temperature in various locations.

Requirements for Heat Systems Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1210	Gas Heat	3
HVAC 1211	Electric Heat	3
HVAC 1220	Oil Burners	3
HVAC 2220	All-Weather Systems (Heat Pumps)	3
HVAC 2221	Installation and Service Problems	3
HVAC 2570	Automated Building Controls	3

REFRIGERATION (ARFSD)

Students that complete refrigeration courses will have electrical knowledge, refrigeration service principles and shop practice including soldering, brazing, flaring and leak checking procedure. The student will gain knowledge by installing and servicing refrigeration system for residential and commercial units.

Requirements for Refrigeration Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6
HVAC 1020	Refrigeration Shop Practices	3
HVAC 1330	Commercial Refrigeration Installation	3
HVAC 1331	Commercial Refrigeration Service	3
HVAC 1500	Air Conditioning, Domestic Refrigeration and Appliance Repair	3

ARCHITECTURAL DESIGN TECHNOLOGY (ADAS1)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

The Architectural Design Technology Program builds a strong foundation by blending classical drafting techniques with state-of-the-art computer-aided design. The student may build an opportunity for employment as a technician in the drafting rooms of architects, engineers, contractors and materials suppliers.

Graduation Requirements	
General Education	31.5
Major Requirements	65.5
Total Credit Hours Required	**97.0**

General Education Requirements.....31.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1430 Trigonometry	4.5	INFO 1001 Information Systems and Literacy	4.5

* The general education requirement for this degree program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Architectural Design Technology.... 65.5 Credit Hrs.

Courses		Credit Hrs.
ARCH 1000	Appreciation of Architecture	4.5
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARCH 1120	Beginning REVIT (Building)	4
ARCH 1130	Intermediate REVIT (Building)	4
ARCH 1200	Woodframe Architecture	8
ARCH 2410	Commercial Architecture	8
ARCH 2420	Renovation Architecture	8
ARCH 2520	Beginning 3-D Studio Max	4
ARCH 2530	Intermediate 3-D Studio Max	4
ARCH 2600	High Rise Architecture	8
ARCH 2981	Internship	4

Below is the format of classes for the student planning a career in architectural design after two years of full-time study.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
ARCH 1000	4.5	ARCH 1200	8.0	ARCH 1120	4.0
ARCH 1100	4.5	INFO 1001	4.5	ARCH 1130	4.0
ARCH 1110	4.5	MATH requirement	4.5	ARCH 2410	8.0
MATH requirement	4.5		17.0		16.0
	18.0				
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
ARCH 2420	8.5	ARCH 2520	4.0	ARCH 2981	4.0
English requirement	4.5	ARCH 2530	4.0	English requirement	4.5
HMRL 1010	4.5	ARCH 2600	8.0	Humanitiess/Social Science	4.5
	17.0		16.0		13.0

ARCHITECTURAL DESIGN TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

ARCHITECTURAL IMAGING (AAISD)

Students receiving this diploma will have achieved an intermediate skill level with the graphic software currently used in the offices of architects and engineers.

Requirements for Architectural Imaging Diploma.....25.0 Credit Hrs.

Courses		Credit Hrs.
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARCH 1120	Beginning REVIT (Building)	4
ARCH 1130	Intermediate REVIT (Building)	4
ARCH 2520	Beginning 3-D Studio Max	4
ARCH 2520	Intermediate 3-D Studio Max	4

AUTO COLLISION TECHNOLOGY (ABAS1)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

The Auto Collision Technology Program covers the entire scope of the field, including basic and advanced metal finishing repair, frame repair and alignment, panel replacement, major body repair and all aspects of automotive painting using the latest technology.

Graduation Requirements	
General Education	27.0
Major Requirements	70.5–78.5
Total Credit Hours Required	**97.5–105.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Auto Collision Technology ..70.5–78.5 Credit Hrs.

Courses		Credit Hrs.
AUTB 1000	Automotive Welding I	3
AUTB 1010	Automotive Welding II	3
AUTB 1220	Nonstructural Repair III	6
AUTB 1100	Structural Repair I	3
AUTB 1110	Structural Repair II	3
AUTB 1200	Nonstructural Repair I	6
AUTB 1210	Nonstructural Repair II	6
AUTB 2120	Structural Repair III	3
AUTB 2230	Nonstructural Repair IV	6
AUTB 2240	Nonstructural Repair V **OR**	
AUTB 2981	Internship	6–10
AUTB 2241	Nonstructural Repair VI **OR**	
AUTB 2981	Internship	6–10
AUTB 2300	Automotive Refinishing I	3
AUTB 2310	Automotive Refinishing II	6
AUTB 2450	Collision Estimating	3
AUTB 2550	Electrical and Mechanical Systems	3
RDLS 1200	College Success Strategies **OR**	
Elective		4.5

For entry into the Auto Collision Program, two tests are required:

1. Written mechanical reasoning
2. Hands-on aptitude test

Students must complete at least one internship experience in order to receive this degree.

Basic tool set is required by the beginning of the second quarter classes.

ACCELERATED LOCKSTEP PROGRAM OPTION

First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
AUTB 1000	3.0	AUTB 1210	6.0	AUTB 1220	6.0	AUTB 2981 **OR**	
AUTB 1010	3.0	AUTB 2120	3.0	AUTB 2230	6.0	AUTB 2240	6–10
AUTB 1100	3.0	AUTB 2300	3.0	AUTB 2310	6.0	AUTB 2981 **OR**	
AUTB 1110	3.0	AUTB 2450	3.0	HMRL 1010	4.5	AUTB 2241	6–10
AUTB 1200	6.0	AUTB 2550	3.0	MATH 1240	4.5		12–20
ENGL 1230	4.5	ENGL 1240	4.5		27.0		
INFO 1001	4.5	Social Science	4.5				
RDLS 1200	4.5		27.0				
	31.5						

Students must complete all other degree requirements before signing up for the 12 credit hour Internship. AUTB 2240 or AUTB 2241 may be substituted for the Internship if offered during the summer hours. Both Internship credit hours must be completed to comply with program requirements.

AUTO COLLISION TECHNOLOGY (ABTC1)

Award: Certificate of Achievement
Program location: Applied Technology Center

The certificate program in Auto Collision Technology covers basic sheet metal and frame repair.

Graduation Requirements	
General Education	13.5
Major Requirements	39.0
Total Credit Hours Required	**52.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)	4.5		

Major Requirements for Auto Collision Technology .... 39.0 Credit Hrs.

Courses		Credit Hrs.
AUTB 1000	Automotive Welding I	3
AUTB 1010	Automotive Welding II	3
AUTB 1100	Structural Repair I	3
AUTB 1110	Structural Repair II	3
AUTB 1200	Nonstructural Repair I	6
AUTB 1210	Nonstructural Repair II	6
AUTB 1220	Nonstructural Repair III	6
AUTB 2120	Structural Repair III	3
Choose 6 credit hours of electives.		

AUTO COLLISION TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Applied Technology Center

Auto Collision Estimating (ACESD)

Upon completion of the specialist diploma in estimating, students will be qualified for a training/intern position as an adjustor for an insurance company or an estimator for a collision repair shop.

Requirements for Auto Collision Estimating Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
AUTB 1100	Structural Repair I	3
AUTB 1200	Nonstructural Repair I	6
AUTB 1210	Nonstructural Repair II	6
AUTB 2300	Automotive Refinishing I	3
AUTB 2450	Collision Estimating	3
AUTB 2550	Electrical and Mechanical Systems	3

AUTOMOTIVE TECHNOLOGY (AUAAS)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Automotive Technology START (Student Training in Automotive Repair Technology) Program includes an associate degree program and specialist diplomas designed to meet the technical needs of an industry that has been revolutionized by electronics and computerization. The associate degree program provides a sound background in the major automotive repair areas.

Graduation Requirements	
General Education	27.0
Major Requirements	83.0
Total Credit Hours Required	**110.0**

General Education Requirements..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1240 Applied Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Automotive Technology.....83.0 Credit Hrs

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6
AUTT 1210	Automotive Electricity and Electronics I	6
AUTT 1220	Automotive Electricity and Electronics II	6
AUTT 1510	Brake Systems	6
AUTT 1620	Climate Control/Heating and Air Conditioning	6
AUTT 1710	Mechanical Services	6
AUTT 2310	Suspension Systems	6
AUTT 2410	Basic Driveability	6
AUTT 2430	Advanced Driveability	6
AUTT 2810	Manual Transmissions and Drive Trains	6
AUTT 2820	Automatic Transmissions	6
AUTT 2830	Automatic Transaxles	6
AUTT 2981	On-the-Job Training/Work Experience	8
WELD 1261	Combination Welding – Automotive	3

Students must complete 24 credit hours in automotive courses before they may register for AUTT 2981 On-the-Job Training/Work Experience.

Entrance into the AUTT Program is determined by an application process. You must contact an academic advisor or faculty member to acquire an application packet.

Automotive Technology Advising Tips
Students who wish to enter the Automotive Technology Program must complete a hands-on (nuts and bolts) test. Students not passing this test is required to enroll in AUTT 0900 during the summer quarter. Passing AUTT 0900 is required to enter the program. Those who are not successful in AUTT 0900 may be referred to INCT 0900 Introduction to the Trades. For more information, see an advisor or counselor.

Entrance into the Automotive Technology Program is limited to the Fall quarter only. The evening program utilizes a hybrid format. Approximately 25 percent of the instruction is online.

A basic tool set is required by the beginning of the second quarter of classes. Students who do not obtain their tools may be disenrolled.

Additional program requirements are detailed in the student handbook at www.mccneb.edu/programs/autt.asp.

Students must take the math assessment exam and test into college-level math.

The Automotive Technology Program has ASE MASTER certification in all areas of training. This is the highest level of achievement recognized by the National Institute for Automotive Service Excellence.

AUTOMOTIVE TECHNOLOGY – Basic Automotive Service (AUTC1)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Basic Automotive Service Certificate provides the student with the skills and knowledge necessary for entry-level positions in the automotive field. This program helps the student develop skills in diagnosing and repairing common tune-up problems. The fundamentals of automotive systems are presented and emphasis is placed on diagnosing problems related to these systems.

Graduation Requirements	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

General Education Requirements..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Automotive Technology.....36.0 Credit Hrs.

Courses		**Credit Hrs.**
AUTT 1010	Introduction to Auto Service and Minor Repair	6
AUTT 1210	Automotive Electricity and Electronics I	6
AUTT 1220	Automotive Electricity and Electronics II	6
AUTT 1510	Brake Systems	6
AUTT 1620	Climate Control/Heating and Air Conditioning	6
AUTT 1710	Mechanical Services	6

The Automotive Technology Program has ASE MASTER certification in all areas of training. This is the highest level of achievement recognized by the National Institute for Automotive Service Excellence.

AUTOMOTIVE TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Automotive Electronics (AAESD)
Completing these four classes will allow you to be able to read a wiring diagram, master the use of a multimeter, troubleshoot electrical problems and recognize the common symptoms associated with electrical repair.

Requirements for Automotive Electronics Diploma...24.0 Credit Hrs.

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6
AUTT 1210	Automotive Electricity and Electronics I	6
AUTT 1220	Automotive Electricity and Electronics II	6
AUTT 2410	Basic Driveability	6

AUTOMOTIVE TRANSMISSIONS AND TRANSAXLES (ATTSD)

Completing these five classes will allow you to be able to remove and install a manual and an automatic transmission, replace a clutch, take oil pressure readings, make internal measurements and adjustments and to diagnose common problems associated with drive train repair.

Requirements for Automotive Transmissions and Transaxles Diploma .....30.0 Credit Hrs.

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6
AUTT 1210	Automotive Electricity and Electronics I	6
AUTT 2810	Manual Transmissions and Drive Trains	6
AUTT 2820	Automatic Transmissions	6
AUTT 2830	Automatic Transaxles	6

AUTOMOTIVE BRAKES AND SUSPENSION (ABSSD)

Completing these four classes will allow you to be able to replace a set of pads and shoes, bleed the hydraulic system, understand the theory associated with ABS and vacuum boosters, operate a lathe, perform a realignment, operate an alignment machine, adjust alignment angles and diagnose problems associated with brakes and suspension repair.

Requirements for Automotive Brakes and Suspension Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6
AUTT 1210	Automotive Electricity and Electronics I	6
AUTT 1510	Brake Systems	6
AUTT 2310	Suspension Systems	6

CIVIL ENGINEERING TECHNOLOGY (CEAAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus

The Civil Engineering Technology Program emphasizes the skills necessary for the graduate seeking employment in civil engineering occupations. Emphasis is placed on the related use of computers and software. The degree provides a strong foundation in current basic civil engineering techniques and prepares the student for occupational entry and advancement as a civil engineering technician. The graduate is readily employed as an engineering technician in construction, transportation, surveying and testing laboratories.

Graduation Requirements	
General Education	27.0
Major Requirements	79.0
Total Credit Hours Required	**106.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Civil Engineering Technology ...79.0 Credit Hrs.

Courses		Credit Hrs.
MATH 1430	Trigonometry	4.5
PHYS 1010	Applied Physics	4.5
SCET 1000	Civil Engineering Fundamentals	4.5
SCET 1050	Building Construction	3
SCET 1060	Physical and Structural Properties of Soils and Rocks	3
SCET 1070	Contracts and Specifications	3
SCET 1080	Estimating Construction Costs	3
SCET 1120	AutoCAD Essentials	9
SCET 1150	AutoCAD Civil 3-D	9
SCET 1200	Surveying Fundamentals	6.5
SCET 2010	Fluid Mechanics	4
SCET 2220	Transit and Traverse Surveying	6.5
SCET 2240	Mapping, Staking and GPS	6.5
SCET 2300	Structures I	4
SCET 2310	Structures II	4
SCET 2320	Structures III	4

CIVIL ENGINEERING TECHNOLOGY (CETCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Civil Engineering Technology Certificate prepares the student to enter a variety of civil engineering occupations at the earliest possible time. It provides basic skills and prepares the graduate to seek entry-level positions.

Graduation Requirements	
General Education	18.0
Major Requirements	32.0
Total Credit Hours Required	**50.0**

General Education Requirements.....18.0* Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
EnglishLevel I (see page 40)	4.5	MATH 1310 Intermediate Algebra	4.5
		MATH 1430 Trigonometry	4.5
Natural Sciences	**Credit Hrs.**		
PHYS 1010 Applied Physics	4.5		

* The general education requirement for this certificate program exceeds the minimum standard number of hours. For more information, contact Student Services.

Major Requirements for Civil Engineering Technology..... 32.0 Credit Hrs.

Courses		Credit Hrs.
SCET 1000	Civil Engineering Fundamentals	4.5
SCET 1050	Building Construction	3
SCET 1060	Physical and Structural Properties of Soils and Rocks	3
SCET 1070	Contracts and Specifications	3
SCET 1080	Estimating Construction Costs	3
SCET 1120	AutoCAD Essentials	9
SCET 1200	Surveying Fundamentals	6.5

CIVIL ENGINEERING TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Surveying (CESSD)

The Surveying Specialist Diploma is designed to provide career preparation in land surveying practices. Recipients may seek employment in surveying entry-level positions in engineering, architectural and design firms and government agencies.

Requirements for Surveying Diploma .....28.5 Credit Hrs.

Courses		Credit Hrs.
SCET 1120	AutoCAD Essentials	9
SCET 1200	Surveying Fundamentals ◇	6.5
SCET 2220	Transit and Traverse Surveying	6.5
SCET 2240	Mapping, Staking and GPS ◇	6.5

◇ Additional prerequisite(s) may be required.

CONSTRUCTION TECHNOLOGY

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Construction technology is a growing and diverse field. The Construction Technology Program offers a wide array of options including Construction Management, Residential and Commercial Construction, Cabinetry and Finishing and Masonry. See the following pages for all program options.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	50.5–57.0
Total Credit Hours Required	**95.0–101.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended but may not transfer.	
ENGL 1220 and ENGL 1240 are recommended but may not transfer.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended but may not transfer.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Construction Technology ....17.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 2050	Builders Level, Transit and Building Layout	3.5
CNST 2100	Construction Safety (30 OSHA training)	4.5

The student interested in a construction technology option should consult with faculty advisors or Student Services when planning his/her studies.

Option Requirements for Construction Technology ..... 50.5–57.0 Credit Hrs.

The Construction Technology Degree (CSAAS) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Concrete/Masonry Construction 54.5 credit hours	**Construction Management** 53 credit hours	**General Construction/ Remodeling** 54.5 credit hours
Residential Carpentry 51.5 credit hours	**Residential Finish Carpentry/ Cabinetry** 54 credit hours	**Commercial Construction** 57 credit hours

CONSTRUCTION TECHNOLOGY – Concrete/Masonry Construction Option (CSMCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The Concrete/Masonry Construction curriculum provides the student with knowledge and entry-level skills desirable for success in the field of masonry construction.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	48.0
Electives	6.5
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for Concrete/Masonry Construction... 48.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2130	Construction Estimating	4
CNST 2981	Internship	8
WELD 1500	SMAW (Stick) – Flat	3

Electives for Concrete/Masonry Construction .....6.5 Credit Hrs.

Courses	Credit Hrs.
Choose 6.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY – Commercial Construction Option (CSCCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The Commercial Construction curriculum provides the student with knowledge and entry-level skills desirable for success in the field of commercial construction.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	50.5
Electives	6.5
Total Credit Hours Required	**101.5**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for Commercial Construction .....50.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1255	Commercial Framing	6.5
CNST 1260	Introduction to Cabinet Making	3
CNST 1261	Basic Cabinet Construction	6.5
CNST 1355	Commercial Finish	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2981	Internship	8

Electives for Commercial Construction .....6.5 Credit Hrs.

Courses	Credit Hrs.
Choose 6.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY – Construction Management Option (CSCMO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The Construction Management curriculum provides the student with knowledge and entry-level skills desirable for construction entrepreneurship, as well as supervision of a variety of construction projects. The student entering this option should have four years minimum field experience or a formal degree in the area of construction.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	46.5
Electives	6.5
Total Credit Hours Required	**97.5**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for Construction Management.....46.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1350	Floor, Wall and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	3.5
CNST 2130	Construction Estimating	4
CNST 2140	Jobsite Management	4.5
CNST 2150	Construction Law	3.5
CNST 2981	Internship	8

Electives for Construction Management.....6.5 Credit Hrs.

Courses	Credit Hrs.
Choose 6.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY –
General Construction/Remodeling Option (CSGCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The General Construction/Remodeling curriculum provides the student with knowledge and entry-level skills desirable for success in the field of general construction and remodeling.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	48.0
Electives	6.5
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for General Construction/Remodeling...48.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1350	Floor, Wall and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2130	Construction Estimating	4
CNST 2360	Roof Framing	6.5
CNST 2981	Internship	8

Electives for General Construction/Remodeling.....6.5 Credit Hrs.

Courses	Credit Hrs.
Choose 6.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY – Residential Carpentry Option (CSRCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The Residential Carpentry curriculum provides the student with knowledge and entry-level skills desirable for success in the residential field of carpentry.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	44.0
Electives	7.5
Total Credit Hours Required	**96.0**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for Residential Carpentry .....44.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 1350	Floor, Wall and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2360	Roof Framing	6.5
CNST 2380	Stair Construction	3.5
CNST 2981	Internship	8

Electives for Residential Carpentry .....7.5 Credit Hrs.

Courses	Credit Hrs.
Choose 7.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY –
Residential Finish Carpentry/Cabinetry Option (CSRFO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

The Residential Finish Carpentry/Cabinetry curriculum provides the student with knowledge and entry-level skills desirable for success in the residential field of carpentry and cabinetry.

Graduation Requirements	
General Education	27.0
Major Requirements	17.5
Option Requirements	51.0
Electives	3.0
Total Credit Hours Required	**98.5**

General Education Requirements ..... listed on page 180

Major Requirements for Construction Technology ..... listed on page 180

Option Requirements for Finish Carpentry/Cabinetry .....51.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 1260	Introduction to Cabinet Making	3
CNST 1261	Basic Cabinet Construction	6.5
CNST 1270	General Painting, Staining and Cabinet Finishing	3
CNST 1370	Exterior Finish	6.5
CNST 2130	Construction Estimating	4
CNST 2380	Stair Construction	3.5
CNST 2981	Internship	8

Electives for Residential Finish Carpentry/Cabinetry .... 3.0 Credit Hrs.

Courses	Credit Hrs.
Choose 3 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INTD, INFO, MATH, PHYS, PSYC, RDLS, REES, SPAN, SCET, SCIE, WELD and WORK.	

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CONSTRUCTION TECHNOLOGY – Concrete and Masonry Specialist (CSMCE)

Award: Certificate of Achievement
Program location: Applied Technology Center, South Omaha Campus

In the Concrete and Masonry Specialist curriculum, the student acquires basic skills in the concrete and masonry trade. The student will acquire knowledge and skills needed for an entry-level position in concrete and masonry. This certificate leaves the student employable in both the residential and commercial areas of construction.

Graduation Requirements	
General Education	13.5
Major Requirements	40.0
Total Credit Hours Required	**53.5**

General Education REquirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40) ENGL 1220 is recommended but may not transfer.	4.5	Humanities/Social Sciences (see page 40) PSYC 1000 is recommended, but may not transfer.	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40) MATH 1240 is recommended but may not transfer.	4.5		

Major Requirements for Concrete and Masonry Specialist... 40.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2050	Builders Level, Transit and Building Layout	3.5

CONSTRUCTION TECHNOLOGY – Framing and Finishing Specialist (CSFCE)

Award: Certificate of Achievement
Program location: South Omaha Campus

In the Framing and Finishing Specialist curriculum, the student acquires basic framing and finishing skills using measuring devices and learns the application of hand and power tools. The graduate is employable in large and small construction companies in both framing and finishing.

Graduation Requirements	
General Education	13.5
Major Requirements	36.5
Total Credit Hours Required	**50.0**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40) ENGL 1220 is recommended but may not transfer.	4.5	Humanities/Social Sciences (see page 40) PSYC 1000 is recommended but may not transfer.	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40) MATH 1240 is recommended but may not transfer.	4.5		

Major Requirements for Framing and Finishing Specialist ... 36.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1250	Interior Finish	6.5
CNST 1350	Floor, Wall and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2050	Builders Level, Transit and Building Layout	3.5
CNST 2360	Roof Framing	6.5
CNST 2380	Stair Construction	3.5

CONSTRUCTION TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: Applied Technology Center, South Omaha Campus

CABINETRY CONSTRUCTION (CCCSD)

Configured to supply the student with knowledge and skills required for entry-level employment in the cabinet and furniture making industry. The student will gain knowledge and skills through practical application as well as theory in the classroom. A 30-hour OSHA construction safety certification is included.

Requirements for Cabinetry Diploma .....30.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1260	Introduction to Cabinet Making	3.0
CNST 1261	Basic Cabinet Construction	6.5
CNST 1270	General Painting, Staining and Cabinet Finishing	3.0
CNST 2100	Construction Safety	4.5

COMMERCIAL CONSTRUCTION (CCOSD)

This diploma is for the student who has the desire or need to enter the field of commercial construction as soon as possible. The students will partake in classroom and practical application exercises, which will supply the student with knowledge and skills in the construction management area. A 30-hour OSHA construction safety certification is included.

Requirements for Commercial Construction Diploma ..... 28.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1015	Printreading III Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1255	Commercial Framing	6.5
CNST 1510	Concrete and Wall Forms	3.5
CNST 2100	Construction Safety	4.5

CONSTRUCTION MANAGEMENT (CCMSD)

This diploma is for the well-seasoned craft worker whom has six years or more experience and has the desire or need for skills required to move into the area of supervision. The students will partake in classroom and practical application exercises, which will supply the student with knowledge and skills in the construction management area. A 30-hour OSHA construction safety certification is included.

Requirements for Construction Management Diploma..... 27.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1015	Printreading III Commercial	3.5
CNST 2100	Construction Safety	4.5
CNST 2130	Construction Estimating	4
CNST 2140	Jobsite Management ◇	4.5
CNST 2150	Construction Law	3.5

◇ Additional prerequisite(s) may be required.

GENERAL CONSTRUCTION/REMODELING (CCRSD)

This diploma is designed to assist the practicing, small contractor and remodeler as well as those seeking knowledge and skills for entry-level employment in this area. For those who wish to obtain knowledge in code compliance, understanding of OSHA safety requirements and expanded knowledge of materials and their proper use, this is the diploma for you.

Requirements for General Construction/ Remodeling Diploma ..... 27.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.0
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 2100	Construction Safety	4.5

RESIDENTIAL CARPENTRY (CRCSD)

This diploma is for the student who has the desire or need to enter the field of residential carpentry as soon as possible. The students will partake in classroom and practical application exercises, which will supply the student with knowledge and skills in the residential carpentry area. A 30-hour OSHA construction safety certification is included.

Requirements for Residential Carpentry Diploma .....28.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1350	Floor, Wall and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety	4.5

RESIDENTIAL FINISH CARPENTRY (CRFSD)

This diploma is for the student who has the desire or need to enter the field of residential finish carpentry as soon as possible. The students will partake in classroom and practical application exercises, which will supply the student with knowledge and skills in the residential finish carpentry area. A 30-hour OSHA construction safety certification is included.

Requirements for Residential Finish Carpentry Diploma... 28.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety	4.5

MASONRY AND CONCRETE CONSTRUCTION (CMCSD)

This diploma is designed to supply the student with knowledge and skills to begin a career in masonry as well as supply the seasoned mason with advanced skills. Included are materials and testing, bonding and layout, advanced arch-work and a 2-hour OSHA construction safety certification.

Requirements for Masonry and Concrete Diploma....30.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1050	Introduction to Carpentry	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2100	Construction Safety	4.5
WELD 1500	SMAW (Stick) – Flat	3

DIESEL TECHNOLOGY (DTAAS)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program prepares students for a career in the growing transportation industry. Students will interact with industry in real-world scenarios during the internships, gaining the confidence and skills needed to succeed. Technicians may work on light- to heavy-duty vehicles or expand into various other fields in the transportation industry.

Graduation Requirements	
General Education	27.0
Major Requirements	32.5
Option Requirements	37.0–41.0
Total Credit Hours Required	**96.5–100.5**

General Education Requirements..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Microcomputers Fundamentals	4.5

Major Requirements for Diesel Technology.....32.5 Credit Hrs.

Courses		Credit Hrs.
DESL 1000	Diesel Preventive Maintenance	4
DESL 1010	Diesel Electricity	2
DESL 1110	Diesel Engine Fuel Systems	3
DESL 1210	Diesel Electronics	4
DESL 1230	Diesel Engine Fundamentals	4
DESL 1301	CDL for Diesel Techs I	2.5
DESL 1302	CDL for Diesel Techs II	1
DESL 2210	Diesel Engine Controls	4
DESL 2220	Diesel Engine Diagnostics	4
DESL 2230	Diesel Engine Rebuild	4

Option Requirements for Diesel Technology.....37.0–41.0 Credit Hrs.

The Diesel Technology Degree (DSAAS) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Diesel Service	**Heavy Equipment**	**Power Generation**
41 credit hours	39 credit hours	37 credit hours

DIESEL TECHNOLOGY – Diesel Service (DTDSO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

With the complexity of trucks and the increasing need for qualified, trained diesel technicians, this program will provide students with the fundamentals needed for employment in this field of Diesel Service Technology.

Graduation Requirements	
General Education	27.0
Major Requirements	32.5
Option Requirements	41.0
Total Credit Hours Required	**100.5**

General Education Requirements ..... listed on page 191

Major Requirements for Diesel Technology ..... listed on page 191

Option Requirements for Diesel Service.....41 Credit Hrs.

Courses		Credit Hrs.
DESL 1200	Fundamentals of Hydraulics	3
DESL 1620	Climate Control Heating and Air Conditioning	4
DESL 2100	Heavy-Duty Drivetrain	6
DESL 2200	Steering, Suspension and Brakes	6
DESL 2240	Engine Maintenance and Emissions	3
DESL 2981	Diesel Internship I	8
DESL 2982	Diesel Internship II	8
WELD 1261	Combination Welding – Automotive	3

DESL 2981 and DESL 2982 each require 320 hours of on-the-job training. Each course can either be taken during one quarter or extended over more than one quarter depending on the needs of the student and the employer.

DIESEL TECHNOLOGY – Heavy Equipment (DTHEO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program option prepares students for a career in the heavy equipment, construction and utility industries. This degree option serves students by providing a diverse education of coursework that is taught by faculty with direct experience in the industry. A major strength of this program is the strong hands-on approach to learning.

Graduation Requirements	
General Education	27.0
Major Requirements	32.5
Option Requirements	39.0
Total Credit Hours Required	**98.5**

General Education Requirements ..... listed on page 191

Major Requirements for Diesel Technology ..... listed on page 191

Option Requirements for Heavy Equipment.....39.0 Credit Hrs.

Courses		Credit Hrs.
DESL 1200	Fundamentals of Hydraulics	3
DESL 1220	Advanced Diesel Hydraulics	6
DESL 1620	Climate Control Heating and Air Conditioning	4
DESL 2110	Heavy-Equipment Drivetrain	6
DESL 2250	Field Service Maintenance	6
DESL 2981	Diesel Internship I	8
WELD 1262	Quickstart	3
WELD 1500	SMAW (Stick) – Flat	3

DIESEL TECHNOLOGY – Power Generation (DTPGO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program prepares students for a career in the growing diesel power generation field. This option is one of only a few nationally that allows the student to get both diesel and alternative fuel engine training while learning AC power generation methods and distribution technologies.

Graduation Requirements	
General Education	27.0
Major Requirements	32.5
Option Requirements	37.0
Total Credit Hours Required	**96.5**

General Education Requirements ..... listed on page 191

Major Requirements for Diesel Technology ..... listed on page 191

Option Requirements for Power Generation .....37.0 Credit Hrs.

Courses			Credit Hrs.
DESL	1115	Alternative Fueled Engines	3
DESL	2215	Diesel Generator Controls	3
DESL	2983	Diesel Internship III	4
DESL	2984	Diesel Internship IV	4
UTIL	1020	Electricity I	5.5
UTIL	1040	Generator Theory	6
UTIL	2020	Transformer Theory	5.5
UTIL	2040	Power Generator Applications	6

DIESEL SERVICE TECHNOLOGY – Specialist Diploma

Award: Specialist Diploma
Program location: Applied Technology Center

DIESEL TRUCK (DDES1)

Students who complete the requirements of this diploma will gain the knowledge and skills needed for an entry-level position in the transportation industry. The diploma provides students with fundamental instruction in the basic operation of diesel engines, service, brakes, electrical systems and power trains.

Requirements for Diesel Truck Diploma .....29.0 Credit Hrs.

Courses		Credit Hrs.
DESL 1000	Diesel Preventative Maintenance	4
DESL 1010	Diesel Electricity	2
DESL 1230	Diesel Engine Fundamentals	4
DESL 1620	Climate Control/Heating Air Conditioning	4
DESL 2100	Heavy-Duty Drivetrain	6
DESL 2200	Steering, Suspension and Brakes	6
WELD 1261	Combination Welding – Automotive	3

CDL–A TRUCK DRIVING (CDLSD)

The successful completion of this diploma will provide students with the knowledge and skills needed to obtain a CDL Class A truck driving license. With this license, graduates will be able to apply for driving jobs in the trucking industry.

Requirements for CDL-A Truck Driving Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
DESL 1310	Truck Driving CDL Training I	8.5
DESL 1320	Truck Driving CDL Training II	9
DESL 2980	On-the-Job Training/Work Internship	6
HLTH 1010	Heartsaver First Aid with CPR and AED	1

HLTH 1010 is required for those who do not currently hold a valid CPR/First Aid card.

ELECTRICAL APPRENTICESHIP (AREAO)

Award: Associate in Applied Science Degree
Program Location: South Omaha Campus

The Electrical Apprenticeship Program is for students preparing to become licensed electricians. The courses are offered on an evening schedule only, allowing students to seek employment with electrical contractors during the day. Students receive college credit for successful completion of the coursework at the same time they are preparing for the licensing exam. Students should be employed full time in electrical trade while taking classes. For more information about this program, contact Lyle Hendrickson at (402) 738-4034.

Graduation Requirements	
General Education	27.0
Major Requirements	16.5
Apprenticeship Classes	56.0
Total Credit Hours Required	**99.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Electrical Apprenticeship ....16.5 Credit Hrs.

Courses		Credit Hrs.
ELTR 1350	Electrical Printreading	3
CNST 2100	Construction Safety	4.5
ELTR 1212	Motor and Machine Controls	9

Apprenticeship Requirements .....56.0 Credit Hrs.

Courses		Credit Hrs.
ELAP 1110	Electrical IA	7
ELAP 1120	Electrical IB	7
ELAP 1210	Electrical IIA	7
ELAP 1220	Electrical IIB	7
ELAP 2310	Electrical IIIA	7
ELAP 2320	Electrical IIIB	7
ELAP 2410	Electrical IVA	7
ELAP 2420	Electrical IVB	7

ELECTRICAL TECHNOLOGY (ETAAS)

Award: Associate in Applied Science Degree
Program Location: South Omaha Campus

The Electrical Technology Program provides education and training for students who wish to get into the electrical field. The student who completes this program will be exposed to electrical systems in residential wiring and commercial wiring, as well as in industrial motor controls.

Graduation Requirements	
General Education	27.0
Major Requirements	70.0
Total Credit Hours Required	**97.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Electrical Technology .....70.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9
ELTR 1212	Motor and Machine Controls	9
ELTR 1220	Commercial Wiring	9
ELTR 1331	Information Transport Systems Level I	4.5
ELTR 1350	Electrical Printreading	3
ELTR 2231	Programmable Logic Controllers I	4.5
ELTR 2240	NEC Code	4.5
ELTR 2331	Electric Service and Installation	4.5
ELTR 2981	Internship	8
INCT 1000	Industrial Safety and Health	4.5
INCT 2050	Problem Solving	3

ELECTRICAL TECHNOLOGY COURSEWORK – TRADITIONAL TRACK							
FIRST YEAR							
First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
ELTR 1200	6.5	ELTR 1210	9.0	ELTR 1220	9.0	ELTR 2981	8.0
INCT 1000	4.5	INCT 2050	3.0	HMRL 1010	4.5		
MATH 1240	4.5	INFO 1001	4.5	ENGL 1220	4.5		
	15.5		16.5		18.0		
SECOND YEAR							
Fifth Quarter (Fall)		Sixth Quarter (Winter)		Seventh Quarter (Spring)			
ELTR 1212	9.0	ELTR 2231	4.5	ELTR 2331	4.5		
ENGL 1240	4.5	ELTR 1331	4.5	Humanities/			
ELTR 1350	3.0	ELTR 2240	4.5	Social Science	4.5		
	16.5		13.5		9.0		

ELECTRICAL TECHNOLOGY – Industrial Electrical (ETICE)

Award: Certificate of Achievement
Program location: South Omaha Campus

This certificate is designed for students that may work in the Industrial setting. Students will gain a working knowledge of industrial electrical systems and control circuit wiring.

Graduation Requirements	
General Education	13.5
Major Requirements	38.0
Total Credit Hours Required	**51.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1220 Technical Writing	4.5	MATH 1240 Applied Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Industrial Technology .....38.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1212	Motor and Machine Controls	9
ELTR 2231	Programmable Logic Controllers I	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	9

ELECTRICAL TECHNOLOGY – Building Electrical (ETBCE)

Award: Certificate of Achievement
Program location: South Omaha Campus

This certificate is designed for students that may work in the electrical field. Students will gain a knowledge of facilities and residential wiring.

Graduation Requirements	
General Education	13.5
Major Requirements	38.0
Total Credit Hours Required	**51.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1220 Technical Writing	4.5	MATH 1240 Applied Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Building Electrical .....38.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9
ELTR 1220	Commercial Wiring	9
ELTR 1331	Information Transportation Systems Level I	4.5
ELTR 2240	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5

ELECTRICAL TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

RESIDENTIAL ELECTRICAL (ETRS1)

Students who take the following courses will have the minimum skills to get an entry-level job wiring residential homes.

Requirements for Residential Electrical Diploma .....29.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9
ELTR 1331	Information Transportation Systems Level I	4.5
ELTR 2240	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5

COMMERCIAL ELECTRICAL (ETCS1)

Students who take the following courses will have the minimum skills to get an entry-level job wiring in a commercial building.

Requirements for Commercial Electrical Diploma .....38.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1212	Motor and Machine Controls	9
ELTR 1220	Commercial Wiring	9
ELTR 1331	Information Transportation Systems Level I	4.5
ELTR 2240	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5

INDUSTRIAL ELECTRICAL (ETIS1)

Students who take the following courses will have the minimum skills to get an entry-level job wiring in control circuits in an industrial setting.

Requirements for Industrial Electrical Diploma .....29.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1212	Motor and Machine Controls	9
ELTR 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 1000	Industrial Safety and Health	4.5

PROGRAMMABLE LOGIC CONTROLLERS (ETPSD)

This diploma is designed to give the student the information and skills needed for the installation and maintenance of programmable logic controllers as used in industry, building maintenance and entertainment.

Requirement for Programmable Logic Controllers Diploma...25.5 Credit Hrs.

Courses		Credit Hrs.
INCT 1000	Industrial Safety and Health	4.5
INCT 2050	Problem Solving	3
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
ELTR 2235	Programmable Logic Controllers Applications	9

INDUSTRIAL AND COMMERCIAL TRADES

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Industrial and Commercial Trades Program serves students by providing a diverse education in the trades, maintenance and distribution fields. All students will learn the basics of workplace safety and health as well as effective problem-solving and troubleshooting skills. Depending on the chosen degree option, students will be prepared to work in building maintenance, industrial maintenance, precision machining and product distribution fields. Coursework is taught by faculty with direct experience in the industry. A major strength of the program is the strong hands-on approach to learning.

Graduation Requirements	
General Education	27.0
Major Requirements	7.5
Option Requirements	61.5–63.5
Total Credit Hours Required	**96.0–98.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Industrial and Commercial Trades ....7.5 Credit Hrs.

Courses		Credit Hrs.
INCT 1000	Industrial Safety and Health	4.5
INCT 2050	Problem Solving	3

Option Requirements for Industrial and Commercial Trades .....61.5–63.5 Credit Hrs.

The Industrial and Commercial Trades (IMAS1) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Building Maintenance	Electrical Mechanical Maintenance	Precision Machine Technology
61.5 credit hours	63.5 credit hours	62 credit hours

INDUSTRIAL AND COMMERCIAL TRADES – Building Maintenance Option (IMCB2)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Building Maintenance option provides education and training for maintenance personnel at residential and commercial facilities. The student will learn how the major building, electrical, heating and air and plumbing systems work together. The student will get hands-on training in all of these areas.

Graduation Requirements	
General Education	27.0
Major Requirements	7.5
Option Requirements	61.5
Total Credit Hours Required	**96.0**

General Education Requirements ..... listed on page 199

Major Requirements for Industrial and Commercial Trades..... listed on page 199

Option Requirements for Building Maintenance .....61.5 Credit Hrs.

Courses			Credit Hrs.
ELTR	1220	Commercial Wiring	9
HVAC	1000	Refrigeration Electrical Theory and Application	6
HVAC	1010	Refrigeration Service Principles and Basic Automatic Controls	6
INCT	1200	Basic Electricity	6.5
INCT	1210	Residential Wiring	9
INCT	1300	Floor Coverings	3.5
INCT	1301	Home/Building Maintenance Carpentry	4.5
INCT	1302	Stationary Engineering I	3
INCT	1303	Basic Plumbing	6.5
INCT	1331	Information Transportation Systems Level I	4.5
Electives from any prefix			3

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INDUSTRIAL AND COMMERCIAL TRADES – Electrical/Mechanical Maintenance Option (IMEM1)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Electrical/Mechanical Maintenance option provides education and training for maintenance personnel at industrial and commercial facilities. The student will learn standard and advanced electrical systems, mechanical systems and hydraulic/pneumatic systems.

Graduation Requirements	
General Education	27.0
Major Requirements	7.5
Option Requirements	63.5
Total Credit Hours Required	**98.0**

General Education Requirements ..... listed on page 199

Major Requirements for Industrial and Commercial Trades..... listed on page 199

Option Requirements for Electrical/Mechanical Maintenance .... 63.5 Credit Hrs.

Courses		Credit Hrs.
INCT 1050	Mechanical Printreading	4
INCT 1200	Basic Electricity	6.5
INCT 1212	Motor and Machine Controls	9
INCT 2060	Mechanical Power Systems	4.5
INCT 2070	Hydraulics and Pneumatics	3.5
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	9
WELD 1100	Industrial Cutting Processes	3
WELD 1200	GMAW (MIG) – Steel I	3
WELD 1500	SMAW (Stick) – Flat	3
Choose a minimum of 9 hours from the following courses:		
DRAF 1100	AutoCAD Fundamentals	9
ELTR 1220	Commercial Wiring	9
ELTR 2240	NEC Code	4.5
INCT 1210	Residential Wiring	9
INCT 1302	Stationary Engineering I	3
INCT 1303	Basic Plumbing	6.5
INCT 1331	Information Transportation Systems Level I	4.5
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 2302	Stationary Engineering II	4
INCT 2981	Internship	Variable
UTIL 1020	Electricity I	5.5
WELD 1300	Oxyacetylene Welding (OAW)	3
Electives from any prefix		6

ELECTRICAL/MECHANICAL COURSEWORK – TRADITIONAL TRACK

FIRST YEAR

First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
INCT 1000	4.5	INCT 1050	4.0	INCT 2070	3.5	Electives	9.0
INCT 2050	3.0	INCT 2060	4.5	ENGL 1240	4.5		9.0
MATH 1240	4.5	ENGL 1220	4.5	Humanities/Social Science	4.5		
	12.0		13.0		12.5		

SECOND YEAR

Fifth Quarter (Fall)		Sixth Quarter (Winter)		Seventh Quarter (Spring)		Eighth Quarter (Summer)	
HMRL 1010	4.5	WELD 1500	3.0	INCT 2231	4.5	INCT 2235	9.0
INCT 1200	6.5	INCT 1212	9.0	INCT 2232	4.5		9.0
WELD 1100	3.0	INFO 1001	4.5	WELD 1200	3.0		
	14.0		16.5		12.0		

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INDUSTRIAL AND COMMERCIAL TRADES – Precision Machine Technology Option (IMPM1)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Precision Machine Technology option provides education and training in machine tool operation and related subjects. Instruction covers bench layout, machine tool operation and metal removal processes, measuring devices and classifications of materials. Training includes hands-on activity and individualized instruction.

Graduation Requirements	
General Education	27.0
Major Requirements	7.5
Option Requirements	62.0
Total Credit Hours Required	**96.5**

General Education Requirements ..... listed on page 199

Major Requirements for Industrial and Commercial Trades..... listed on page 199

Option Requirements for Precision Machine Technology .....62.0 Credit Hrs.

Courses			Credit Hrs.
INCT	1050	Mechanical Printreading	4
INCT	1400	Introduction to Precision Machine Technology	6.5
INCT	1410	Precision Layout and Finishing	4
INCT	1420	Basic Machine Lathe	4
INCT	1421	Basic Milling Machine	4
INCT	1422	Basic Grinding Machine. Setup and Operation	4
INCT	2060	Mechanical Power Systems	4.5
INCT	2070	Hydraulics and Pneumatics	4
INCT	2420	Intermediate Engine Lathe	4
INCT	2421	Intermediate Milling Machines	4
INCT	2422	Intermediate Grinding Machines	4
Choose a minimum of 15 credit hours from the following:			
DRAF	1100	AutoCAD Fundamentals	9
INCT	1200	Basic Electricity	6.5
INCT	1212	Motor and Machine Controls	9
INCT	2410	CNC Milling	4
INCT	2440	Advanced Machining Process	4
INCT	2981	Internship	Variable
WELD	1100	Industrial Cutting Processes	3
WELD	1200	GMAW (MIG) Steel I	3
WELD	1400	GTAW (TIG) Steel I	3
Electives from any prefix			6

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

INDUSTRIAL AND COMMERCIAL TRADES – Industrial Distribution (IMID1)

Award: Associate in Applied Science Degree
Location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Certificate I Requirements	26.0
Certificate II Requirements	25.0
Electives	20.0
Total Credit Hours Required	**98.0**

The Industrial Distribution Degree provides education training for product distribution representatives who move products from the manufacturer to the user and are employed in a wide variety of industries. Job opportunities include sales, product support, product application specialists, management trainees and shipping/warehouse personnel.

This degree is composed of two certificates—Industrial Distribution I and Industrial Distribution II. Students who complete both certificates will be awarded the Associate of Applied Science Degree.

Each certificate can be taken separately. Persons with little or no experience as an industrial sales representative should start with the Industrial Distribution I certificate. Persons with two or more years experience in the field may just want to take the Industrial Distribution II certificate.

INDUSTRIAL DISTRIBUTION I (ID1CE)

General Education Requirements ..... 13.5 Credit Hrs.

Communications		Credit Hrs.	Quantitative/Numeracy Skills		Credit Hrs.
ENGL 1210	Applied Communications **OR**	4.5	MATH 1220	Business Math	4.5
ENGL 1230	Business Writing	4.5			
Other		**Credit Hrs.**			
INFO 1001	Information Systems and Literacy	4.5			

Core Requirements for Certificate I .....26.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1200	Principles of Selling	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INCT 2981	Internship	8

Elective Requirements for Certificate I.....9.0 Credit Hrs.

Students should take a minimum of 9 elective credits in one or more areas related to their work needs or interests. Acceptable courses are various courses in the Industrial and Commercial Trades (INCT), Welding (WELD), Chemistry (CHEM), Construction (CNST), Mechanical Design Technology (DRAF), Electrical Technology (ELTR), Entrepreneurship (ENTR) and Information Technology (INFO).

INDUSTRIAL DISTRIBUTION II (ID2CE)

General Education Requirements ..... 13.5 Credit Hrs.

Communications		Credit Hrs.	Humanities/Social Science	Credit Hrs.
ENGL 1240	Oral and Written Reports ◈	4.5	Humanities/Social Sciences (see page 40)	4.5
Other		**Credit Hrs.**		
INFO 1001	Information Systems and Literacy	4.5		

Core Requirements for Certificate II .....25.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Printreading	4
INCT 2050	Problem Solving	3

Elective Requirements for Certificate II.....11.0 Credit Hrs.

Students should take a minimum of 11 elective credits in one or more areas related to their work needs or interests. Acceptable courses are various courses in Business Management (BSAD), Electrical Technology (ELTR), Industrial and Commercial Trades (INCT), Welding (WELD), Chemistry (CHEM), Construction (CNST), Entrepreneurship (ENTR) and Information Technology (INFO).

◈ Additional prerequisite(s) may be required.

INDUSTRIAL AND COMMERCIAL TRADES – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

BEGINNING INDUSTRIAL SALES REPRESENTATIVE (IBISD)

Students who take the following courses will have the minimal skills to get an entry-level job as a sales representative in a manufacturing distribution company.

Requirements for Beginning Industrial Sales Representative Diploma..... 27.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1200	Principles of Selling	4.5
ENGL 1210	Applied Communications **OR**	
ENGL 1230	Business Writing	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INFO 1001	Information Systems and Literacy	4.5

ADVANCED INDUSTRIAL SALES REPRESENTATIVE (IAISD)

The following courses will enhance the student's knowledge of distribution sales. These are generally for students who are already doing sales or who have completed the Beginning Industrial Sales Representative Specialist Diploma.

Requirements for Advanced Industrial Sales Representative Diploma ..... 25.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Printreading	4
INCT 2050	Problem Solving	3

BUILDING MAINTENANCE (IBMSD)

Students who complete the diploma in Building Maintenance will enhance the skills needed for maintenance positions in hospitals, schools, commercial buildings and property management.

Requirements for Building Maintenance Diploma ..... 25.0 Credit Hrs.

Courses		Credit Hrs.
INCT 1000	Industrial Safety and Health	4.5
INCT 1200	Basic Electricity	6.5
INCT 1301	Home/Building Maintenance Carpentry	4.5
INCT 1303	Basic Plumbing	6.5
INCT 2050	Problem Solving	3

PRODUCTION MAINTENANCE (IPMSD)

Students who complete the diploma in Production Maintenance will enhance the skills needed for positions as production workers with some responsibilities for maintenance tasks.

Requirements for Production Maintenance Diploma..... 33.5 Credit Hrs.

Courses		Credit Hrs.
INCT 1200	Basic Electricity	6.5
INCT 1212	Motor and Machine Controls	9
INCT 1302	Stationary Engineering I	3
INCT 1303	Basic Plumbing	6.5
INCT 2060	Mechanical Power Systems	4.5
INCT 2070	Hydraulics and Pneumatics	4

ELECTRICAL MECHANICAL SYSTEMS (IEMSD)

Students who complete the diploma in Electrical Mechanical Systems will enhance the skills needed for positions as maintenance technicians in manufacturing environments.

Requirements for Electrical Mechanical Systems Diploma ..... 35.5 Credit Hrs.

Courses			Credit Hrs.
INCT	1200	Basic Electricity	6.5
INCT	1212	Motor and Machine Controls	9
INCT	1302	Stationary Engineering I	3
INCT	1303	Basic Plumbing	6.5
INCT	1400	Introduction to Precision Machine Technology	6.5
INCT	1410	Precision Layout and Finishing	4

ELECTRICAL PLANT MAINTENANCE (IEPSD)

Students who complete the diploma in Electrical Plant Maintenance will enhance the skills needed for positions as maintenance technicians who are responsible for their plants electrical systems.

Requirements for Electrical Plant Maintenance Diploma ..... 29.0 Credit Hrs.

Courses			Credit Hrs.
INCT	1000	Industrial Safety and Health	4.5
INCT	1200	Basic Electricity	6.5
INCT	1212	Motor and Machine Controls	9
INCT	2231	Programmable Logic Controllers Level I	4.5
INFO	1001	Information Systems and Literacy	4.5

GENERAL PLANT MAINTENANCE (IGPSD)

Students who complete the diploma in General Plant Maintenance will enhance the skills needed for positions as machine repair persons in a manufacturing environment.

Requirements for General Plant Maintenance Diploma..... 31.5 Credit Hrs.

Courses			Credit Hrs.
INCT	1000	Industrial Safety and Health	4.5
INCT	1200	Basic Electricity	6.5
INCT	1212	Motor and Machine Controls	9
INCT	1302	Stationary Engineering I	3
INCT	2060	Mechanical Power Systems	4.5
INCT	2070	Hydraulics and Pneumatics	4

PRECISION MACHINE BASICS (IMBSD)

Students who complete the diploma in Precision Machine Basics will enhance the skills needed for positions as millwrights, machinists, mechanics and production workers.

Requirements for Precision Machine Basics Diploma ..... 27.0 Credit Hrs.

Courses			Credit Hrs.
INCT	1000	Industrial Safety and Health	4.5
INCT	1400	Introduction to Precision Machine Technology	6.5
INCT	1410	Precision Layout Finishing	4
INCT	1420	Basic Engine Lathe	4
INCT	1421	Basic Milling Machine	4
INCT	1422	Basic Grinding Machine Setup and Operations	4

MECHANICAL DESIGN TECHNOLOGY (DRAS1)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	72.0
Total Credit Hours Required	**99.0**

The Mechanical Design Technology Program provides opportunities for the student to learn the necessary skills to enter the manufacturing industry as drafting technicians. The program provides a balanced curriculum, which includes coursework in classical drafting techniques, state-of-the-art computer-aided design and exploration of manufacturing materials and processes. Local industries provide many employment opportunities in drafting and design.

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Mechanical Design Technology ..... 72.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9
DRAF 1200	Design for Precision (Measurement)	9
DRAF 1300	Inventor Fundamentals	9
DRAF 1400	Manufacturing Processes Design	9
DRAF 2100	SolidWorks Fundamentals	9
DRAF 2200	Machine Design Principles	9
DRAF 2300	Pro/ENGINEER Fundamentals	9
DRAF 2400	Tool Design Processes	9

Students can take any design class after successful completion of AutoCAD Fundamentals. Design classes are: DRAF 1200, DRAF 1400, DRAF 2200 and DRAF 2400.

Below is a suggested guide for the student planning employment in mechanical design technology after two years of full-time study. The student should contact Student Services for planning.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
DRAF 1100	9.0	DRAF 1200	9.0	DRAF 1300	9.0
INFO 1001	4.5	MATH 1310	4.5	Social Sciences	4.5
English Level 1	4.5	English Level II	4.5		13.5
	18.0		18.0		
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
DRAF 1400	9.0	DRAF 2200	9.0	DRAF 2400	9.0
DRAF 2100	9.0	DRAF 2300	9.0	HMRL 1010	4.5
	18.0		18.0		13.5

Below is a suggested guide for the student planning employment in mechanical design technology after one year of full-time study. The student should contact Student Services for planning.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
DRAF 1100	9.0	DRAF 1400	9.0	DRAF 1300	9.0	DRAF 1200	9.0
DRAF 2100	9.0	DRAF 2300	9.0	DRAF 2200	9.0	DRAF 2400	9.0
INFO 1001	4.5	MATH 1310	4.5	Humanitis/Social Science	4.5	HMRL 1010	4.5
English Level 1	4.5	English Level II	4.5		22.5		22.5
	27.0		27.0				

MECHANICAL DESIGN TECHNOLOGY (DRTC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Mechanical Design Technology Certificate provides the student with basic skills in classical drafting techniques and computer-aided drafting. Employment opportunities in many phases of drafting exist in local industries.

Graduation Requirements	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Mechanical Design Technology ..... 36.0 Credit Hrs.

Courses		**Credit Hrs.**
DRAF 1100	AutoCAD Fundamentals	9
Choose one course from the following:		
DRAF 1300	Inventor Fundamentals	9
DRAF 2100	SolidWorks Fundamentals	9
DRAF 2300	Pro/ENGINEER Fundamentals	9
Choose two courses from the following:		
DRAF 1200	Design for Precision (Measurement)	9
DRAF 1400	Manufacturing Processes Design	9
DRAF 2200	Machine Design Principles	9
DRAF 2400	Tool Design Processes	9

Students can take any design class after successful completion of AutoCAD Fundamentals. Design classes are: DRAF 1200, DRAF 1400, DRAF 2200 and DRAF 2400.

MECHANICAL DESIGN TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

COMPUTER-AIDED MANUFACTURING DESIGN (DCMSD)

Students who complete the requirements of this diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to apply CAD software and 3-D solids modeling in the design of mechanisms and other machine components.

Requirements for Computer-Aided Manufacturing Design... 27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9
Choose one course from the following:		
DRAF 1300	Inventor Fundamentals	9
DRAF 2100	SolidWorks Fundamentals	9
DRAF 2300	Pro/ENGINEER Fundamentals	9
Choose one course from the following:		
DRAF 1200	Design for Precision (Measurement)	9
DRAF 1400	Manufacturing Processes Design	9
DRAF 2200	Machine Design Principles	9
DRAF 2400	Tool Design Processes	9

COMPUTER-AIDED DESIGN (DCDSD)

Students who complete the requirements of this diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to apply CAD software in the design of cams, gears and mechanisms and other machine components.

Requirements for Computer-Aided Design Diploma ..... 27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9
Choose two courses from the following:		
DRAF 1200	Design for Precision (Measurement)	9
DRAF 1400	Manufacturing Processes Design	9
DRAF 2200	Machine Design Principles	9
DRAF 2400	Tool Design Processes	9

COMPUTER-AIDED DRAFTING (DCASD)

Students who complete the requirements of this diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to use 2-D and a variety of 3-D CAD solids modeling software to complete the drafting details and assemblies.

Requirements for Computer-Aided Drafting Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9
Choose two courses from the following:		
DRAF 1300	Inventor Fundamentals	9
DRAF 2100	SolidWorks Fundamentals	9
DRAF 2300	Pro/ENGINEER Fundamentals	9

PLUMBING APPRENTICESHIP (ARPAO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Plumbing Apprenticeship Program is for students preparing to become licensed plumbers. The courses are offered on an evening schedule only, allowing students to seek employment with plumbing contractors during the day. Students receive college credit for successful completion of coursework. Students are at the same time completing the plumbing apprenticeship classroom hours requirement. For more information about this program, contact Lyle Hendrickson at (402) 738-4034.

Graduation Requirements	
General Education	27.0
Major Requirements	15.5
Apprenticeship Classes	56.0
Total Credit Hours Required	**98.5**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Plumbing Apprenticeship....15.5 Credit Hrs.

Courses		Credit Hrs.
CNST 2100	Construction Safety	4.5
FINA 1200	Wealth-Building Fundamentals	4.5
INCT 2050	Problem Solving	3
PLAP 1130	Printreading for Plumbing	3.5

Apprenticeship Requirements .....56.0 Credit Hrs.

Courses		Credit Hrs.
PLAP 1110	Plumbing IA	7
PLAP 1120	Plumbing IB	7
PLAP 1210	Plumbing IIA	7
PLAP 1220	Plumbing IIB	7
PLAP 2310	Plumbing IIIA	7
PLAP 2320	Plumbing IIIB	7
PLAP 2410	Plumbing IVA	7
PLAP 2420	Plumbing IVB	7

UTILITY LINE TECHNICIAN (UTAAS)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

The Utility Line Technician Program prepares the student to enter the power utility industry. The coursework instructs the student in the theory and practical application to install and repair power lines, climb poles and towers, make transformer connections and operate digger-derrick equipment, backhoes, trenchers, cable stringing equipment and basket trucks.

Graduation Requirements	
General Education	27.0
Major Requirements	61.0
Electives	8.0
Total Credit Hours Required	**96.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Utility Line Technician .....69.0 Credit Hrs.

Courses			Credit Hrs.
UTIL	1010	Pole Climbing	4.5
UTIL	1020	Electricity I	5.5
UTIL	1030	Ropes, Rigging and Safety	4.5
UTIL	1110	Line Construction I	5.5
UTIL	1240	Underground Distribution Systems I	5.5
UTIL	2020	Transformer Theory	5.5
UTIL	2030	Secondary Electrical Systems	4.5
UTIL	2110	Line Construction II	5.5
UTIL	2210	Overhead Distribution System I	5.5
UTIL	2220	Overhead Distribution Systems II	5.5
UTIL	2230	Distribution Systems Maintenance	4.5
UTIL	2240	Underground Distribution Systems II	4.5
Students must choose 8 credit hours of electives from the following:			
UTIL	2981	Internship	8
UTIL	2310	Substation Systems	4
UTIL	2410	Advanced Meter Systems	4
ELTR	1200	Basic Electricity	6.5
ELTR	1210	Residential Wiring ◇	9
ELTR	1212	Motor and Machine Controls	9
INCT	1000	Industrial Safety	4.5
INCT	2050	Problem Solving	3

A 1 credit hour CPR/First Aid course is also required for those who do not currently hold a valid CPR/first aid card.

Students are required to obtain a Class A, O restriction, Commercial Driver's License (CDL) in order to graduate. Training and testing for this requirement is provided by the MCC Truck Driving Program, although students may acquire the CDL on their own. A 3.5 credit hour class is arranged to fit into the student's schedule.

Entrance into the UTIL Program is determined by an application process. You must contact an academic advisor or faculty member to acquire an application packet. Applications can be completed online at www.mccneb.edu/util.

◇ Additional prerequisite(s) may be required.

Visit the Utility Line web page at www.mccneb.edu/programs/utilityline.asp.

Below is the schedule of classes for the traditional option, weekend option and a suggested track for recent high school graduates. General education requirements can be completed before, during or after the UTIL coursework is completed; however, completing the general education requirements before the UTIL classes will improve the student's chance of being accepted into the program. Students should contact Student Services to design a plan of study.

UTILITY LINE COURSEWORK – TRADITIONAL TRACK			
FIRST YEAR			
First Quarter (Fall)	**Second Quarter (Winter)**	**Third Quarter (Spring)**	**Fourth Quarter (Summer)**
UTIL 1010 4.5	UTIL 1240 5.5	UTIL 2030 4.5	Elective 8.0
UTIL 1020 5.5	UTIL 2020 5.5	UTIL 2220 5.5	8.0
UTIL 1030 4.5	UTIL 2110 5.5	UTIL 2230 4.5	
UTIL 1110 5.5	UTIL 2210 5.5	UTIL 2240 4.5	
20.0	22.0	19.0	
WEEKEND TRACK			
FIRST YEAR			
First Quarter (Spring)	**Second Quarter (Summer)**	**Third Quarter (Fall)**	**Fourth Quarter (Winter)**
UTIL 1010 4.5	UTIL 1110 4.5	UTIL 1240 5.5	UTIL 2020 5.5
UTIL 1030 5.5	UTIL 1020 5.5	UTIL 2210 5.5	UTIL 2110 5.5
10.0	10.0	11.0	11.0
SECOND YEAR			
Fifth Quarter (Spring)	**Sixth Quarter (Summer)**	**Internship**	
UTIL 2030 4.5	UTIL 2230 4.5	UTIL 2981 Internship can be taken after one year of study in the weekend option.	
UTIL 2220 5.5	UTIL 2240 4.5		
10.0	9.0		

RECENT HIGH SCHOOL GRADUATE TRACK This track would allow the student to satisfy all of general education requirements and the elective requirements for the UTAAS degree. Students completing this track would be given preference in the admission process.			
FIRST YEAR			
First Quarter (Fall)	**Second Quarter (Winter)**	**Third Quarter (Spring)**	
ELTR 1200 6.5	ELTR 1210 9.0	HMRL 1010 4.5	
INFO 1001 4.5	English Level I 4.5	INCT 1000 4.5	
Mathematics 4.5	Humanities/Social Science 4.5	English Level II 4.5	
15.5	18.0	13.5	

WELDING TECHNOLOGY (WEAAS)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Welding Technology Program provides training in the basic skills of different welding processes. The student who completes the program is exposed to standard welding procedures used in construction and industry as well as established safety standards and measures. A fabrication project that will require students to use their welding skills, including the reading of welding blueprints, is also required.

Graduation Requirements	
General Education	27.0
Major Requirements	67.0
Electives	11.0
Total Credit Hours Required	**105.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
English Level II (see page 40)	4.5	PSYC 1000 is recommended.	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Welding Technology .....67.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1200	GMAW (MIG) – Steel I	3
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1410	GTAW (TIG) – Stainless I	3
WELD 1420	GTAW (TIG) – Aluminum I	3
WELD 1500	SMAW (Stick) – Flat	3
WELD 1510	SMAW (Stick) – Vertical	3
WELD 1700	Introductory Fabrication	3
WELD 2200	GMAW (MIG) – Steel II	3
WELD 2220	GMAW (MIG) – Stainless	3
WELD 2230	GMAW (MIG) – Aluminum	3
WELD 2240	Flux-Cored Arc Welding I	3
WELD 2242	Submerged Arc and Metal-Cored Welding	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2510	SMAW (Stick) – Overhead	3
WELD 2710	Industrial Fabrication Project	3
WELD 2810	Welder Pre-Qualification	3
WELD 2820	Welder Qualification (Certification)	1

Students can establish their own schedule in many welding courses through MCC's open-entry/open-exit process. Entrance into the program is determined by an Individual Education Plan (IEP) document. Students who are interested need to make an appointment to speak with an advisor at (402) 738-4500 or make an appointment with a full-time instructor at (402) 738-4567.

Electives for Welding Technology .....11.0 Credit Hrs.

Courses		Credit Hrs.
Choose 11 credit hours from the following courses:		
BSAD 1000	Introduction to Business	4.5
BSAD 2610	Labor/Management Relations	4.5
ELEC 1000	Basic Electricity and Electronics	9
INCT 1000	Industrial Safety and Health	4.5
INCT 1200	Basic Electricity	6.5
INCT 2070	Hydraulics and Pneumatics	3.5
WELD 2241	Flux-Cored Arc Welding II	3
WELD 2410	GTAW (TIG) Stainless II	3
WELD 2420	GTAW (TIG) Aluminum II	3
WELD 2500	SMAW (Stick) – Horizontal	3
WELD 2520	SMAW (Stick) – Pipe I	3
WELD 2530	SMAW (Stick) – Pipe II	3
WELD 2540	SMAW (Stick) – Pipe III	3
WELD 2600	Gas-Shielded Arc Welding: Pipe	3
WELD 2900	Special Topics in Welding	Variable
WELD 2981	Internship	6

Attendance of the first class session is mandatory for all welding lab sections.

Below is a suggested guide for the student planning employment in welding technology after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
WELD 1000	3.0	WELD 2200	3.0	WELD 1400	3.0	WELD 1500	3.0
WELD 1100	3.0	WELD 2240	3.0	WELD 1410	3.0	WELD 1510	3.0
WELD 1200	3.0	WELD 1300	3.0	WELD 1420	3.0	WELD 2400	3.0
INFO 1001	4.5	MATH requirement	4.5	HMRL 1010	4.5	English Level I	4.5
	13.5		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
WELD 2220	3.0	DRAF 1100	9.0	WELD 1700	3.0	WELD 2710	3.0
WELD 2230	3.0	WELD 2242	3.0	WELD 2810	3.0	WELD 2820	1.0
WELD 2510	3.0		12.0	Humanities/Social Science	4.5	Electives	3.0–6.5
English Level II	4.5			Electives	3.0–6.5		7.0
	13.5				17.5		

Below is a suggested guide for the student planning employment in welding technology after one and a half years of full-time study. This plan is best implemented under the open-entry, open-exit program.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
WELD 1000	3.0	WELD 1300	3.0	HMRL 1010	4.5	WELD 2220	3.0
WELD 1100	3.0	WELD 1400	3.0	WELD 1500	3.0	WELD 2230	3.0
WELD 1200	3.0	WELD 1410	3.0	WELD 1510	3.0	WELD 2240	3.0
WELD 2200	3.0	WELD 1420	3.0	WELD 2400	3.0	WELD 2242	3.0
INFO 1001	4.5	MATH requirement	4.5	WELD 2510	3.0	English Level I	4.5
	16.5		16.5		16.5		16.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
DRAF 1100	9.0	WELD 2810	3.0	WELD 2710	3.0		
Electives	1.0–6.5	WELD 2820	1.0	English Level II	4.5		
	14.5	WELD 1700	3.0	Humanities/Social Science	4.5		
		Electives	1.0–6.5		12.0		
			12.5				

WELDING TECHNOLOGY

Award: Certificate of Achievement
Program location: South Omaha Campus

The Welding Technology Certificate provides the student with basic skills in oxy/acetylene, shielded-metal arc, gas metal arc and gas tungsten arc welding. The program is primarily devoted to skill building, which provides the student with the opportunity for employment in local industry.

Graduation Requirements	
General Education	13.5
Major Requirements	21.0
Option and Elective Requirements	18–21.0
Total Credit Hours Required	**52.5–55.5**

General Education Requirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	Humanities/Social Sciences (see page 40)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 40)	4.5		

Major Requirements for Welding Technology .....21.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1200	GMAW (MIG) – Steel I	3
WELD 1500	SMAW (Stick) – Flat	3
WELD 1700	Introductory Fabrication	3
WELD 2200	GMAW (MIG) – Steel II	3
WELD 2240	Flux-Cored Arc Welding I	3

Option and Elective Requirements for Welding Technology ..... 18.0–21.0 Credit Hrs.

The Welding Technology Certificate (WELCE) options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Structural	**Manufacturing**	**Pipe**
18 credit hours	21 credit hours	21 credit hours

WELDING TECHNOLOGY – Structural Option (WELSO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Welding Technology Structural Certificate is designed to provide the student with basic welding skills needed to do structural welding either in construction (e.g., as an ironworker) or as a structural steel fabricator. The student who completes the program is exposed to printreading with special focus on interpreting welding symbols as well as skill training in oxyfuel cutting, shielded-metal arc welding (Stick), gas metal arc welding (MIG), flux-cored arc welding (FCAW) and gas tungsten arc welding (TIG).

Graduation Requirements	
General Education	13.5
Major Requirements	21.0
Option Requirements	12.0
Electives	6.0
Total Credit Hours Required	**52.5**

General Education Requirements ..... listed on page 215

Major Requirements for Welding Technology..... listed on page 215

Option Requirements for Structural .....12.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1420	GTAW (TIG) – Aluminum I	3
WELD 1510	SMAW (Stick) – Vertical	3
WELD 2510	SMAW (Stick) – Overhead	3

Electives for Structural .....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 1410	GTAW (TIG) – Stainless I	3
WELD 2241	Flux-Cored Arc Welding II	3
WELD 2242	Submerged Arc and Metal-Cored Welding	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2410	GTAW (TIG) – Stainless II	3
WELD 2420	GTAW (TIG) – Aluminum II	3
WELD 2500	SMAW (Stick) – Horizontal	3
WELD 2520	SMAW (Stick) – Pipe I	3
WELD 2530	SMAW (Stick) – Pipe II	3
WELD 2810	Welder Pre-Qualification	3
WELD 2820	Welder Qualification (Certification)	1
WELD 2981	Internship	6

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major certificate is awarded.

WELDING TECHNOLOGY – Manufacturing Option (WELMO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Welding Technology Manufacturing Certificate is designed to provide the student with basic welding skills needed to work in manufacturing industries. The student who completes the program is exposed to printreading with special focus on interpreting welding symbols as well as skill training in plasma cutting, gas metal arc welding (MIG) and gas tungsten arc welding (TIG) of steel, stainless steel and aluminum and flux-cored arc welding (FCAW).

Graduation Requirements	
General Education	13.5
Major Requirements	21.0
Option Requirements	15.0
Electives	6.0
Total Credit Hours Required	**55.5**

General Education Requirements ..... listed on page 215

Major Requirements for Welding Technology..... listed on page 215

Option Requirements for Manufacturing .....15.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1410	GTAW (TIG) – Stainless I	3
WELD 1420	GTAW (TIG) – Aluminum I	3
WELD 2220	GMAW (MIG) – Stainless	3
WELD 2230	GMAW (MIG) – Aluminum	3

Electives for Manufacturing .....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 2241	Flux-Cored Arc Welding II	3
WELD 2242	Submerged Arc and Metal-Cored Welding	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2410	GTAW (TIG) – Stainless II	3
WELD 2420	GTAW (TIG) – Aluminum II	3
WELD 2600	Gas-Shielded Arc: Pipe	3
WELD 2810	Welder Pre-Qualification	3
WELD 2820	Welder Qualification (Certification)	1
WELD 2981	Internship	6

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major certificate is awarded.

WELDING TECHNOLOGY – Pipe Option (WELPO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Welding Technology Pipe Certificate is designed to provide the student with basic welding skills needed to work in Industries where welding of low pressure pipe is required. The student who completes the program is exposed to printreading with special focus on interpreting welding symbols as well as skill training in oxyfuel cutting, shielded metal arc welding (stick), gas metal arc welding (MIG) of steel pipe and flux-cored arc welding (FCAW) of plate.

Graduation Requirements	
General Education	13.5
Major Requirements	21.0
Option Requirements	15.0
Electives	6.0
Total Credit Hours Required	**55.5**

General Education Requirements ..... listed on page 215

Major Requirements for Welding Technology..... listed on page 215

Option Requirements for Pipe.....15.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1510	SMAW (Stick) – Vertical	3
WELD 2241	Flux-Cored Arc Welding II	3
WELD 2510	SMAW (Stick) – Overhead	3
WELD 2520	SMAW (Stick) – Pipe I	3
WELD 2530	SMAW (Stick) – Pipe II	3

Electives for Pipe.....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1410	GTAW (TIG) – Stainless I	3
WELD 1420	GTAW (TIG) – Aluminum I	3
WELD 2220	GTAW (MIG) – Stainless	3
WELD 2230	GTAW (MIG) – Aluminum	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2410	GTAW (TIG) – Stainless II	3
WELD 2420	GTAW (TIG) – Aluminum II	3
WELD 2500	SMAW (Stick) – Horizontal	3
WELD 2810	Welder Pre-Qualification	3
WELD 2820	Welder Qualification (Certification)	1
WELD 2981	Internship	6

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major certificate is awarded.

WELDING TECHNOLOGY – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Gas Metal Arc Welding Specialist (WGMSD)

This diploma is designed for the student wishing to concentrate his/her studies on wire-based processes, procedures and techniques. Students will learn to read prints and interpret welding symbols; safely and skillfully use oxyfuel, plasma and air carbon arc cutting processes; safely and skillfully use gas metal arc and flux-cored arc welding equipment; produce sound fillet and groove welds in steel, stainless steel and aluminum in all positions with gas metal arc welding using short-circuit, spray and pulsed spray modes of metal transfer; and produce sound fillet and groove welds in steel using flux-cored arc welding.

Requirements for GMAW Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1200	GMAW (MIG) – Steel I	3
WELD 2200	GMAW (MIG) – Steel II	3
WELD 2220	GMAW (MIG) – Stainless	3
WELD 2230	GMAW (MIG) – Aluminum	3
WELD 2240	Flux-Cored Arc Welding I	3
WELD 2241	Flux-Cored Arc Welding II	3

Gas Tungsten Arc Welding Specialist (WGTSD)

This diploma is designed for the student wishing to concentrate his/her studies on gas tungsten arc welding (TIG) processes, procedures and techniques. Students will learn to read prints and interpret welding symbols,;safely and skillfully use oxyfuel, plasma and air carbon arc cutting processes; safely and skillfully use gas tungsten arc welding equipment; produce sound fillet and groove welds in steel, stainless steel and aluminum in all positions in with gas tungsten arc welding; and produce sound fillet and groove welds using pulsed gas tungsten arc welding.

Requirements for GTAW Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1410	GTAW (TIG) – Stainless I	3
WELD 1420	GTAW (TIG) – Aluminum I	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2410	GTAW (TIG) – Stainless II	3
WELD 2420	GTAW (TIG) – Aluminum II	3

Shielded Metal Arc Welding Specialist (WSMSD)

This diploma is designed for the student wishing to concentrate his/her studies on the shielded-metal arc welding process, procedures and techniques. Students will learn to read prints and interpret welding symbols; safely and skillfully use oxyfuel, plasma and air carbon arc cutting processes; safely and skillfully use shielded-metal arc welding (stick) equipment; and produce sound fillet and groove welds in steel plate and pipe using E6010 and E7018 electrodes.

Requirements for SMAW Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1500	SMAW (Stick) – Flat	3
WELD 1510	SMAW (Stick) – Vertical	3
WELD 2500	SMAW (Stick) – Horizontal	3
WELD 2510	SMAW (Stick) – Overhead	3
WELD 2520	SMAW (Stick) – Pipe I	3
WELD 2530	SMAW (Stick) – Pipe II	3

Pipe-Welding Specialist (WPWSD)

This diploma is designed for the student wishing to concentrate his/her studies on SMAW (Stick) and GTAW (TIG) based processes, procedures and techniques as they are applied to pipe welding. Students will learn to read prints and interpret welding symbols; safely and skillfully use oxyfuel, plasma and air carbon arc cutting processes; safely and skillfully use shielded-metal arc welding (stick) equipment; safely and skillfully use gas tungsten arc welding (TIG) equipment; produce sound fillet and groove welds in steel plate and pipe using E6010 and E7018 electrodes and steel plate using GTAW; and produce sound groove welds in pipe using GTAW.

Requirements for Pipe-Welding Diploma.....30.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3
WELD 1100	Industrial Cutting Processes	3
WELD 1300	Oxyacetylene Welding (OAW)	3
WELD 1400	GTAW (TIG) – Steel I	3
WELD 1500	SMAW (Stick) – Flat	3
WELD 1510	SMAW (Stick) – Vertical	3
WELD 2400	GTAW (TIG) – Steel II	3
WELD 2510	SMAW (Stick) – Overhead	3
WELD 2520	SMAW (Stick) – Pipe I	3
WELD 2530	SMAW (Stick) – Pipe II	3

PUBLIC SERVICE

DEGREES IN THIS SECTION:

- Criminal Justice
- Early Childhood Educator
- Fire Science Technology
- Human Services
- Sign Language Studies

OTHER RELATED DEGREES:

- Legal Studies *(see Business Office)*
- Liberal Arts/Academic Transfer:
  Pre-Education with Endorsements in: Art, Business, Industrial Technology, Math, Natural Science, Spanish *(see Transfer Programs)*
- General Studies – Pre-Criminal Justice *(see Transfer Programs)*

CRIMINAL JUSTICE

Award: Associate in Applied Science Degree
Program location: South Omaha Campus, Online

Individuals considering a degree or employment in the criminal justice profession must be aware of strict employment qualifications. Factors that usually disqualify candidates from employment in the profession include a criminal record (i.e. theft, assault, murder), history of drug abuse, significant psychological/personal disorders, physiological disorders, neuro-muscular dysfunction and dishonesty. Criminal justice agencies carefully scrutinize candidates in order to select those who will maintain the public's trust and confidence at all times.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	26.0–27.0
Total Credit Hours Required	**98.0–99.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	SOCI 1010 Introduction to Sociology	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 40)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1220 Business Math is strongly recommended		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Criminal Justice .....45.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 1010	Introduction to Criminal Justice	4.5
CRIM 1140	Reporting Techniques for Criminal Justice	4.5
CRIM 2000	Criminal Law	4.5
CRIM 2050	Principles of Interview and Interrogation	4.5
CRIM 2150	Contemporary Issues in Criminal Justice	4.5
CRIM 2260	Criminal Investigation	4.5
CRIM 2310	Rules of Evidence	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 2310	Criminology	4.5
SOCI 2311	Juvenile Justice	4.5

Upon successful completion of a P.O.S.T. accredited academy or basic police academy course accredited by the Nebraska Law Enforcement Training Center, a maximum of 18 credit hours may be granted upon petition for CRIM 1010, CRIM 2000, CRIM 2030 and CRIM 2260.

Option Requirements for Criminal Justice .....26.0–27.0 Credit Hrs.

The Criminal Justice degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Corrections 27 credit hours	**Generalist** 26 credit hours
Homeland Security 27 credit hours	**Law Enforcement** 27 credit hours
Network Security and Computer Forensics 27 credit hours	**Private Security** 27 credit hours

The student interested in a Criminal Justice option should consult with advisors or Student Services when planning his/her studies.

In addition to police careers, the Criminal Justice Program also leads to the following opportunities:

crime lab specialist	*criminal justice professor*	*FBI agent*
forest ranger	*district attorney*	*U.S. marshal*
game warden	*defense attorney*	*secret service*
911 dispatcher	*probation/parole officer*	*state trooper*
court bailiff	*prison warden*	*judge*

CRIMINAL JUSTICE – Corrections Option (CJCNO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Criminal Justice – Corrections option provides the student with fundamental knowledge and skills associated with the field of corrections.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	27.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 222

Major Requirements for Criminal Justice ..... listed on page 222

Option Requirements for Corrections .....27.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 1020	Introduction to Corrections	4.5
CRIM 2010	Introduction to Probation and Parole	4.5
CRIM 2020	Legal Issues in Corrections	4.5
CRIM 2120	Community-Based Corrections	4.5
CRIM 2220	Correctional Client	4.5
CRIM 2320	Correctional Facilities	4.5

CRIMINAL JUSTICE – Generalist Option (CJGNO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

The Criminal Justice Program prepares individuals for employment at the federal, state and local levels in the fields of law enforcement, courts and corrections. The student may also prepare for careers in the criminal justice auxiliary components such as parole, probation and the juvenile justice system. Successful completion of this or a similar program may be a requirement in some jurisdictions for state certification as a peace officer.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	26.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 222

Major Requirements for Criminal Justice ..... listed on page 222

Option Requirements for Generalist.....26.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1110	Interpersonal Communication Skills	3.5
POLS 2050	American National Government	4.5
CRIM 1020	Introduction to Corrections	4.5
CRIM 1030	Courts and the Judicial Process	4.5
CRIM 2120	Community-Based Corrections	4.5
CRIM 2300	Community Relations	4.5

The degree option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

CRIMINAL JUSTICE – Homeland Security Option (CJHSO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus, Online

The Criminal Justice Homeland Security option provides the student with fundamental knowledge and skills associated with the field of homeland security.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	27.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 222

Major Requirements for Criminal Justice ..... listed on page 222

Option Requirements for Homeland Security.....27.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 2400	Introduction to Homeland Security	4.5
CRIM 2410	Homeland Security Transportation	4.5
CRIM 2420	International Crime and Terrorism	4.5
CRIM 2430	Emergency Response to Terrorism	4.5
CRIM 2440	Weapons of Mass Destruction	4.5
CRIM 2450	Global Terrorism	4.5

CRIMINAL JUSTICE – Law Enforcement Option (CJLEO)

Award: Criminal Justice Associate in Applied Science Degree
Program location: South Omaha Campus, Online

The Criminal Justice Law Enforcement option provides the student with fundamental knowledge and skills associated with the field of law enforcement.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	27.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 222

Major Requirements for Criminal Justice ..... listed on page 222

Option Requirements for Generalist.....27.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 1030	Courts and the Judicial Process	4.5
CRIM 2030	Police and Society	4.5
CRIM 2190	Police Field Services	4.5
CRIM 2300	Community Relations	4.5
CRIM 2330	Introduction to Forensic Investigation	4.5
SOCI 2060	Multicultural Issues	4.5

CRIMINAL JUSTICE –
Network Security and Computer Forensics Option (CJNSO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus, Online

The Criminal Justice Network Security option provides the student with fundamental knowledge and skills associated with the field of network security.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	27.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... **listed on page 222**

Major Requirements for Criminal Justice ..... **listed on page 222**

Option Requirements for Network Security .....27.0 Credit Hrs.

Courses		Credit Hrs.
INFO 2362	Web and Server Application Security	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2806	Network Attacks, Intrusions and Penetration Testing	4.5
INFO 2808	Boundary Protection	4.5
INFO 2809	Information Systems, Forensics and Legal Topics	4.5
INFO 2810	Security Planning: Assessment, Analysis and Implementation	4.5

CRIMINAL JUSTICE – Private Security Option (CJPSO)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus, Online

The Criminal Justice Private Security option provides the student with fundamental knowledge and skills associated with the field of private security.

Graduation Requirements	
General Education	27.0
Major Requirements	45.0
Option Requirements	27.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... **listed on page 222**

Major Requirements for Criminal Justice ..... **listed on page 222**

Option Requirements for Network Security .....27.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 2500	Introduction to Private Security	4.5
CRIM 2510	Private Security Law	4.5
CRIM 2520	Loss Prevention	4.5
CRIM 2530	Commercial Security	4.5
CRIM 2540	Fire/Alarm Security	4.5
CRIM 2550	Principles of Security Safety	4.5

CRIMINAL JUSTICE – Specialist Diplomas

Award: Specialist Diploma
Program location: Collegewide

COMMUNITY-BASED CORRECTIONS (CJCD1)

This diploma will provide the student with a background for entering the field of corrections.

Requirements for Community-Based Corrections.....27 Credit Hrs.

Courses		Credit Hrs.
CRIM 1010	Introduction to Criminal Justice	4.5
CRIM 1020	Introduction to Corrections	4.5
CRIM 2010	Introduction to Probation and Parole	4.5
CRIM 2020	Legal Issues in Corrections	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

EARLY CHILDHOOD EDUCATOR (ECAS1)

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	73.5
Total Credit Hours Required	**100.5**

The Early Childhood Educator Program prepares the student for employment as a head teacher or director of childcare facilities. Learning opportunities center around curriculum planning, managing and teaching within a childcare facility. Skills essential to working with parents and children in a variety of settings and activities are stressed.

The individual who is considering going into the field of early childhood education should be aware that checks with the Adult and Child Abuse Registries are conducted before employment is offered. Such checks are also done on an individual enrolled in practicum courses. This practice is consistent with Nebraska State Statutes.

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	PSYC 1130 Cognitive Development	4.5
English Level II (see page 40)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1310 Intermediate Algebra	4.5	INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Early Childhood Educator ..... 73.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment and Guidance	4.5
ECED 1110	Infant/Toddler Development	4.5
ECED 1120	Preschool Child Development	3
ECED 1150	Introduction to Early Childhood Education	4.5
ECED 1160	Early Language and Literacy	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant/Toddler Practicum ☞	3
ECED 1230	School-Age Child Development	3
ECED 1240	Preschool-Age/School-Age Practicum ☞	3
ECED 1260	Children's Health and Nutrition	4.5
ECED 2050	Children with Exceptionalities	4.5
ECED 2060	Early Childhood Education Curriculum Planning	4.5
ECED 2070	Family and Community Relations	4.5
ECED 2080	Advanced Child Development	4.5
ECED 2090	Early Childhood Student Teaching Practicum ☞	6
ECED 2095	Current Topics in Early Childhood Education	4.5
ECED 2450	Administration of Early Childhood Education Programs	4.5

☞ The student enrolling in practicums should visit the Early Childhood practicum web site at www.mccneb.edu/ecp.

Students who plan to transfer to a four-year institution need to see and maintain regular contact with an ECED faculty advisor.

This program is accredited through the National Association for the Education of Young Children, which means it was required to meet high standards in the preparation of Early Childhood Education employees.

Early Childhood Associate Degree
naeyc
ACCREDITED

PUBLIC SERVICE

Below is a suggested guide for the student planning employment in the early childhood education field at the associate degree level after two years of full-time study.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
ECED 1060	4.5	ECED 1050	4.5	ECED 1230	3.0
ECED 1110	4.5	ECED 1120	3.0	ECED 1240	3.0
ECED 1150	4.5	ECED 1221	3.0	PSYC 1130	4.5
ECED 1220	1.5	ECED 1260	4.5	MATH 1220 **OR**	
ENGL 1010	4.5		15.0	MATH 1310	4.5
	19.5				15.0
SECOND YEAR					
Fourth Quarter		**Fifth Quarter**		**Sixth Quarter**	
ECED 1160	4.5	HMRL 1010	4.5	ECED 2070	4.5
ECED 2060	4.5	ECED 2050	4.5	ECED 2090	6.0
ECED 2080	4.5	ECED 2095	4.5	ECED 2450	4.5
INFO 1001	4.5	ENGL 1020	4.5		15.0
	18.0		18.0		

EARLY CHILDHOOD EDUCATOR – Assistant (ECTC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

The Early Childhood Educator-Assistant program provides training/learning opportunities for paraprofessionals that assist head teachers in carrying out various responsibilities. These responsibilities include planning and organizing activities used in the care of young children.

The individual who is considering going into the field of early childhood education should be aware that checks with the Adult and Child Abuse Registries are conducted before employment is offered. Such checks are also done on an individual enrolled in practicum courses. This practice is consistent with Nebraska State Statutes.

General Education Requirements..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 40)	4.5	PSYC 1130 Cognitive Development	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics **OR** MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Assistant Teacher.....36.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment and Guidance	4.5
ECED 1120	Preschool Child Development	3
ECED 1150	Introduction to Early Childhood Education	4.5
ECED 1110	Infant/Toddler Development	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant/Toddler Practicum	3
ECED 1230	School-Age Child Development	3
ECED 1240	Preschool-Age/School-Age Practicum	3
ECED 1260	Children's Health and Nutrition	4.5

The student enrolling in a practicum course should visit the Early Childhood practicum web site at www.mccneb.edu/ecp.

Below is a suggested guide for the student planning employment in the early childhood education field at the certificate level after one year of full-time study.

FIRST YEAR					
First Quarter		**Second Quarter**		**Third Quarter**	
ENGL 1010	4.5	ECED 1050	4.5	ECED 1230	3.0
ECED 1060	4.5	ECED 1120	3.0	ECED 1240	3.0
ECED 1110	4.5	ECED 1221	3.0	PSYC 1130	4.5
ECED 1150	4.5	ECED 1260	4.5	MATH 1220 **OR**	
ECED 1220	1.5		15.0	MATH 1310	4.5
	19.5				15.0

PUBLIC SERVICE

EARLY CHILDHOOD EDUCATION — Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

Early Childhood Generalist (ECGSD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn this diploma by completing the following courses.

Requirements for Early Childhood Generalist.....25.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment and Guidance**	4.5
ECED 1110	Infant/Toddler Development**	4.5
ECED 1120	Preschool Child Development**	3
ECED 1150	Introduction to Early Childhood Education**	4.5
ECED 1260	Children's Health and Nutrition	4.5

**Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Spanish (ECSSD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn this diploma by completing the following courses. Additionally, the Spanish courses will provide an introductory background of Spanish usage in the early childhood classroom.

Requirements for Early Childhood Spanish Diploma .....24.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment and Guidance**	4.5
ECED 1110	Infant/Toddler Development**	4.5
ECED 1120	Preschool Child Development**	3
ECED 1150	Introduction to Early Childhood Education**	4.5
SPAN 0100	Introduction to the Study of Spanish	2
SPAN 1100	Elementary Spanish I	7.5

**Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Sign Language (ECSLD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn this diploma by completing the following courses. Additionally, the sign language courses will give the student a basic background of the usage of sign language in the early childhood classroom.

Requirements for Early Childhood Sign Language Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment and Guidance**	4.5
ECED 1110	Infant/Toddler Development**	4.5
ECED 1120	Preschool Child Development**	3
ECED 1150	Introduction to Early Childhood Education**	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SLIS 1010	American Sign Language I	6

**Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Family/Group Home Specialist (ECGHD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn this diploma by completing the following courses. Additionally, the Entrepreneurship courses will help to prepare student to operate their own family childcare home or a group 1/11 home.

Requirements for Early Childhood Family/ Group Home Diploma.....28.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment and Guidance**	4.5
ECED 1110	Infant/Toddler Development**	4.5
ECED 1120	Preschool Child Development**	3
ECED 1230	School-Age Child Development	3
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5

**Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

FIRE SCIENCE TECHNOLOGY (FSAAS)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	80.5
Total Credit Hours Required	**107.5**

The Fire Science Technology Program provides a unique opportunity to build professional skills and expand career possibilities. Insurance investigators and adjusters, industrial safety specialists, fire protection system designers and professionals and volunteer firefighters will benefit from enrolling in the Fire Science Technology Program.

General Education Requirements ..... 27.0 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1220 Technical Writing	4.5	SPCH 1110 Public Speaking	4.5
ENGL 1240 Oral and Written Reports	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1240 Applied Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Fire Science Technology .....80.5 Credit Hrs.

Courses		Credit Hrs.
FIST 1000	Fire Protection Principles	3
FIST 1020	Chemistry and Dynamics of Fire	4
FIST 1040	Principles of Property and Casualty Insurance	3
FIST 1050	Building Construction	4
FIST 1060	Fire Science Professional: Health and Welfare	3
FIST 1070	Fire Protection Systems	3
FIST 1080	Hydraulics	4
FIST 1090	Firefighter I	15
FIST 2000	Incident Command System	4
FIST 2010	Incendiary Fire Analysis and Investigation	3
FIST 2020	Fire Prevention, Building Inspections and Codes	4
FIST 2050	Municipal Fire Administration	3
FIST 2060	Strategy and Tactics	4
FIST 2070	Hazardous Materials Technician and Chemistry	5
FIST 2080	Firefighter II	8
HLTH 1000	CPR	1
HLTH 1100	EMT – Basic	9.5

Students in the Fire Science Program will also need to take Principles of Emergency Management and Leadership and Influence through the FEMA web site. These are online courses and must be completed prior to graduation.

Below is the format of classes for the student planning a career in fire protection after two years of full-time study.

FIRST YEAR					
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**	
FIST 1000	3.0	FIST 1050	4.0	FIST 1070	3.0
FIST 1020	4.0	FIST 1060	3.0	FIST 1080	4.0
INFO 1001	4.5	MATH 1240	4.5	FIST 2000	4.0
ENGL 1220	4.5		11.5	SPCH 1110	4.5
	16.0				15.5
SECOND YEAR					
Fourth Quarter (Summer)		**Fifth Quarter (Fall)**		**Sixth Quarter (Winter)**	
FIST 1090	15.0	FIST 1040	3.0	FIST 2050	4.0
FIST 2010	3.0	FIST 2020	4.0	HMRL 1010	4.5
FIST 2070	5.0	FIST 2060	4.0		8.5
ENGL 1240	4.5		11.5		
	27.5				

HUMAN SERVICES (HSAAS)*

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

The Human Services Program prepares the student for entry-level positions in public and private community agencies and institutions involved with 'helping' professions. The human services worker is prepared to work as a team member, generally working under the direction of a professional, in providing help to the client. The Council for Standards in Human Services Education (CSHSE) accredits the Human Services Program.

Graduation Requirements	
General Education	27.0
Major Requirements	78.0–82.5
Total Credit Hours Required	**105.0–109.5**

Eneral Education Requirements ..... 27.0 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I*	4.5	PSYC 1010	Introduction to Psychology*	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 40)		4.5	HMRL 1010	Human Relations Skills	4.5
			INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services .....78.0–82.5 Credit Hrs.

Courses		Credit Hrs.
HMSV 1010	Introduction to Human Services*	4
HMSV 1110	Interpersonal Communication Skills*	3.5
HMSV 1120	Helping Skills/Techniques*	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning and Management*	3.5
HMSV 1150	Community Resources	3.5
HMSV 2050	Professional Ethics and Issues	2
HMSV 2110	Group Counseling	4.5
HMSV 2120	Social Services Policy	4.5
HMSV 2150	Multicultural Counseling	4.5
HMSV 2250	Survey of Exceptional Populations	4.5
HMSV 2310	Prepracticum	2
HMSV 2450	Crisis Intervention	3
HMSV 2991	Practicum I/General Human Services♥	5
HMSV 2992	Practicum II/General Human Services♥	5
HMSV 2993	Practicum III/General Human Services♥	5
PSYC 1120	Human Growth and Development	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

Continued on next page.

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.

** The Human Services Program has special admission requirements. The student should consult the Human Services Program Manual. The student must apply for admission to the program after successfully completing the courses marked with an asterisk and receive approval from the Human Services Faculty Review Committee. Successful completion of all courses as stated for the first year of the program is required to be eligible to apply for participation in a practicum course.*

♥The student must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. HLTH 1010 Heartsaver First Aid with CPR and AED is offered through MCC as a 1 credit hour course. The Coordinator of Practicum Education completes registration in practicum courses.

Choose one of the following suggested courses:		
ENGL 1250	Writing for Grants and Proposals	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
HMSV 1160	Medical and Social Aspects of Addition	4.5
HMSV 2130	Treatment Issues in Chemical Dependency Counseling	4
HMSV 2140	Family Therapy	4
HMSV 2160	Advanced Group Skills	4.5
PSYC 1110	Parenting and Family Problem Solving	4.5
PSYC 2150/ SOCI 2150	Survey of Human Sexuality	4.5
PSYC 2450/ SOCI 2450	Social Psychology	4.5
PSYC 2140	Behavior Modification and Principles of Learning	4.5
SLIS 1010	American Sign Language I	6
SOCI 1050	Sociology of Healthcare	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2060	Multicultural Issues	4.5
SOCI 2110	Introduction to Gerontology	4.5
SOCI 2160	Marriage and the Family	4.5
SOCI 2311	Juvenile Justice	4.5
SPAN 1050	Spanish for Business Professionals I	4.5

It is extremely important for students in the Human Services program to take both English requirements in the first two terms of the program.

The individual considering a degree or employment in the human services or chemical dependency fields should be aware of strict admission qualifications. Adult Protective Service and Child Protective Service checks are conducted before practicum placement is offered. The College reserves the right to share the results of any such investigation with any institution at which the student intends to participate in a practicum experience. This practice is consistent with Nebraska state statutes.

Below is a suggested guide for the student planning employment in the human services field after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
ENGL 1010	4.5	ENGL 1020	4.5	HMRL 1010	4.5	HMSV 1130	3.5
INFO 1001	4.5	HMSV 1010	4.0	HMSV 1120	3.5	HMSV 2050	2.0
Math elective	4.5	HMSV 1110	3.5	HMSV 1140	3.5	HMSV 2150	4.5
PSYC 1010	4.5	SOCI 1010	4.5	HMSV 1150	3.5	HMSV 2310	2.0
	18.0		16.5		15.0	PSYC 1120	4.5
							16.5
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**			
HMSV 2110	4.5	HMSV 2120	4.5	HMSV 2993	5.0		
HMSV 2250	4.5	HMSV 2992	5.0	Other Requirement	3.0–6.0		
HMSV 2450	3.0	PSYC 2350	4.5		8.0–11.0		
HMSV 2991	5.0		14.0				
	17.0						

HUMAN SERVICES – General (HSGCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The General Human Services Certificate provides knowledge and skills in interpersonal communication; overview of human services; helping skills/ techniques; community resources; introduction to counseling theories; assessment, case planning and management; professional ethics and issues; and crisis intervention. The certificate includes general education in English composition, mathematics, psychology, sociology and information systems.

Graduation Requirements	
General Education	27.0
Major Requirements	28.0
Total Credit Hours Required	**55.0**

General Education Requirements ..... 27.0 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology	4.5
ENGL 1020	English Composition II	4.5	SOCI 1010	Introduction to Sociology	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 40)		4.5	INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services – General .....28.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1010	Introduction to Human Services	4
HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling	3.5
HMSV 1140	Assessment, Case Planning and Management	3.5
HMSV 1150	Community Resources	3.5
HMSV 2050	Professional Ethics and Issues	2
HMSV 2150	Multicultural Counseling	4.5

HUMAN SERVICES –
Chemical Dependency Counseling (CDAAS)*

Award: Associate in Applied Science Degree
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	78.5–81.5
Total Credit Hours Required	**105.5–08.5**

The Chemical Dependency Counseling Program prepares the student for positions in public and private sectors. A variety of learning experiences focus on theoretical and practical knowledge in working with chemically dependent individuals and their families. The student has the opportunity to develop skills that will enable him/her to work with individuals or groups within the area of chemical dependency counseling. The intent of the program is to facilitate meeting Nebraska certification standards. State certification requirements are subject to change at the discretion of the Department of Health and Human Services.

General Education Requirements..... 27.0 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology*	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 40)		4.5	HMRL 1010	Human Relations Skills	4.5
			INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Chemical Dependency Counseling continued on next page.

Major Requirements for Chemical Dependency Counseling.....78.5–81.5 Credit Hrs.

Courses		Credit Hrs.
HMSV 1110	Interpersonal Communication Skills*	3.5
HMSV 1120	Helping Skills andTechniques*	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning and Management*	3.5
HMSV 1160	Medical and Social Aspects of Addictions*	4.5
HMSV 2050	Professional Ethics and Issues	2
HMSV 2110	Group Counseling	4.5
HMSV 2130	Treatment Issues in Chemical Dependency	4
HMSV 2140	Family Therapy	4
HMSV 2150	Multicultural Counseling	4.5
HMSV 2160	Advanced Group Skills	4.5
HMSV 2310	Prepracticum	2
HMSV 2450	Crisis Intervention	3
HMSV 2994	Practicum I/Chemical Dependency Counseling♥	5
HMSV 2995	Practicum II/Chemical Dependency Counseling♥	5
HMSV 2996	Practicum III/Chemical Dependency Counseling♥	5
PSYC 1120	Human Growth and Development	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

Continued on next page.

Courses		Credit Hrs.
Choose one of the following suggested courses:		
ENGL 1250	Writing for Grants and Proposals	4.5
HMSV 1010	Introduction to Human Services	4
HMSV 1150	Community Resources	3.5
HMSV 2120	Social Services Policy	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
PSYC 1110	Parenting and Family Problem-Solving	4.5
PSYC 2140	Behavior Modification and Principles of Learning	4.5
PSYC 2150/ SOCI 2150	Survey of Human Sexuality	4.5
PSYC 2450/ SOCI 2450	Social Psychology	4.5
SLIS 1010	American Sign Language I	6
SOCI 1050	Sociology of Healthcare	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2060	Multicultural Issues	4.5
SOCI 2110	Introduction to Gerontology	4.5
SOCI 2160	Marriage and the Family	4.5
SOCI 2311	Juvenile Justice	4.5
SPAN 1050	Spanish for Business Professionals I	6

☞ *Because of the limited seats that are available for the required practicum courses (a factor beyond the College's control), there may be a delay in graduation from the program.*

**The Human Services program has special admission requirements. The student should consult the Human Services Program Manual. The student must apply for admission to the program after successfully completing the courses marked with an asterisk and receive approval by the Human Services Faculty Review Committee.*

♥ *Successful completion of all courses as stated for the first year of the program is required to be eligible to apply for participation in a practicum course. The student must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. HLTH 1010Heartsaver First Aid with CPR and AED is offered through MCC as a 1 credit hour course. The Coordinator of Practicum Education completes registration in practicum courses and practicum seminars.*

The individual considering a degree or employment in the human services or chemical dependency fields should be aware of strict admission qualifications. Adult Protective Service and Child Protective Service checks are conducted before practicum placement is offered. The College reserves the right to share the results of any such investigation with any institution at which the student intends to participate in a practicum experience. This practice is consistent with Nebraska state statutes.

It is extremely important for students in the Chemical Dependency Program to take both English requirements in the first two terms of the program.

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.

Below is a suggested guide for the student planning employment in the chemical dependency field after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
ENGL 1010	4.5	ENGL 1020	4.5	HMSV 1120	3.5	HMSV 1130	3.5
INFO 1001	4.5	HMSV 1110	3.5	HMSV 1140	3.5	HMSV 2050	2.0
Math elective	4.5	HMSV 1160	4.5	HMSV 2310	2.0	HMSV 2110	4.5
PSYC 1010	4.5	PSYC 1120	4.5	HMRL 1010	4.5	HMSV 2130	4.0
	18.0		17.0	SOCI 1010	4.5	HMSV 2150	4.5
					18.0		18.5
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**			
HMSV 2160	4.5	HMSV 2995	5.0	HMSV 2996	5.0		
HMSV 2450	4.5	HMSV 2140	4.0	Other requirements	3.0–7.5		
HMSV 2994	5.0	PSYC 2350	4.5		8.0–12.5		
	14.5		13.5				

HUMAN SERVICES – Chemical Dependency (CDCCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	28.0
Total Credit Hours Required	**55.0**

The Chemical Dependency Certificate provides knowledge and skills in medical and social aspects of addiction; treatment issues in addictions; interpersonal communication; helping skills and techniques; introduction to counseling; assessment, case planning and management; professional ethics and issues; and crisis intervention. The certificate includes general education in English composition, mathematics, psychology, sociology and information systems.

General Education Requirements ..... 27.0 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology	4.5
ENGL 1020	English Composition II	4.5	SOCI 1010	Introduction to Sociology	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 40)		4.5	INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services – Chemical Dependency .....28.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling	3.5
HMSV 1140	Assessment, Case Planning and Management	3.5
HMSV 1160	Medical and Social Aspects of Addiction	4.5
HMSV 2050	Professional Ethics and Issues	2
HMSV 2130	Treatment Issues in Additions	4.5
HMSV 2450	Crisis Intervention	3

AMERICAN SIGN LANGUAGE – Pre-Interpreter Program (SLICE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

Graduation Requirements	
General Education	18.0
Major Requirements	34.5
Total Credit Hours Required	**52.5**

The purpose of this certificate is to introduce students to American Sign Language (ASL) as well as prepare students to enter the associate degree ASL/Interpreter Preparation Program. The courses in the program explore the structure of ASL as a language and help develop an understanding of the deaf community. Students successfully completing this program will be able to transfer seamlessly into Iowa Western Community College's Sign Language Interpreting degree program. To become a practicing interpreter, more training is required beyond this certificate program.

General Education Requirements ..... 18.0 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology **OR**	
SPCH 1110	Public Speaking **OR**		PSYC 1120	Human Growth and Development	4.5
SPCH 1300	Interpersonal Communication	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**			
MATH 1310	Intermediate Algebra	4.5			

Major Requirements for American Sign Language ....34.5 Credit Hrs.

Courses		Credit Hrs.
SLIS 1000	Introduction to Language	4.5
SLIS 1005	Introduction to American Sign Language	4.5
SLIS 1010	American Sign Language I	6
SLIS 1020	American Sign Language II	6
SLIS 1140	Orientation to Deafness	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SLIS 1170	Visual Gestural Communication	4.5

Below is a suggested guide for the student planning to complete this certificate during the day in one year.

FIRST YEAR									
First Quarter (Fall)			Second Quarter (Winter)			Third Quarter (Spring)			Fourth Quarter (Summer)		
SLIS	1000	4.5	ENGL	1010	4.5	MATH	1310	4.5	PSYC	1010 **OR**	
SLIS	1005	4.5	SLIS	1010	6.0	SLIS	1020	6.0	PSYC	1120	4.5
SLIS	1140	4.5	SLIS	1150	4.5	SLIS	1170	4.5	SPCH	1110 **OR**	
		9.0			15.0			15.0	SPCH	1300	4.5
											15.0

TRANSFER PROGRAMS

TRANSFER AGREEMENTS

MCC provides many options to students who desire to transfer community college credit to four-year colleges and universities. Articulation agreements take the guesswork out of credit transfer. MCC has many Associate-to-Bachelor (A-to-B) agreements, with area four-year institutions. These agreements allow an MCC student to transfer his/her entire associate degree toward a four-year college degree. In most instances, the student starts as a junior at the transfer institution.

Many area colleges and universities accept MCC courses but do not accept the entire associate degree.

Additional institutions accept MCC courses for credit, but formal agreements have not yet been established. For information about transferring to an institution not included on this list, students should contact the institution to which they wish to transfer.

Visit MCC's web site at www.mccneb.edu/articulation for more information about theses transfer courses or A-to-B agreements.

DEGREES IN THIS SECTION:

- General Studies
- Liberal Arts/Academic Transfer (Associate in Arts)
- Liberal Arts/Academic Transfer (Associate in Science)
- Liberal Arts/Academic Transfer – Humanities/Social Sciences (Certificate)
- Liberal Arts/Academic Transfer – Math/Science (Certificate)
- Liberal Arts/Academic Transfer (Spanish)

OTHER RELATED DEGREES:

- Arts (see *Arts*)
- Business Transfer (see *Business/Office*)
- Computer Technology Transfer (see *Computing/Electronics*)
- Culinary Arts and Management
- Electronic Imaging and Media Arts (see *Arts*)

MCC Transfer Agreements

Alegent Health
Program Guides

Bellevue University
A-to-B Agreements

Buena Vista University
A-to-B Agreements

Chadron State College
A-to-B Agreements
General Education Agreements

Clarkson College
A-to-B Agreements
General Education Agreements

College of Saint Mary
A-to-B Agreements
General Education Agreements

Creighton University
A-to-B Agreements
General Education Agreements

Dana College
A-to-B Agreements
Program Guides

Doane College
Course-by-Course Agreements

Embry-Riddle Aeronautical University
A-to-B Agreements

Grace University
A-to-B Agreements

Graceland University
Course-by-Course Agreements

Iowa State University
Course-by-Course Agreements

Johnson and Wales University
A-to-B Agreements

Kansas State University
Course-by-Course Agreements

Midland Lutheran College
A-to-B Agreements
General Education Agreements

National American University
A-to-B Agreements
Program Guides

Nebraska Methodist College
A-to-B Agreements
General Education Agreements

Nebraska Wesleyan University
A-to-B Agreements

Northwest Missouri State University
A-to-B Agreements

Palmer College of Chiropractic
Program Guides

Peru State College
A-to-B Agreements
General Education Agreements

University of Iowa
Course-by-Course Agreements

University of Kansas
Course-by-Course Agreements

University of Nebraska–Kearney
General Education Agreements

University of Nebraska-Lincoln
A-to-B Agreements
General Education Agreements

University of Nebraska Medical Center
A-to-B Agreements
Program Guides

University of Nebraska–Omaha
A-to-B Agreements
General Education Agreements

University of Phoenix
A-to-B Agreements

Wayne State College
A-to-B Agreements
General Education Agreements

Visit MCC's articulation web site for more details on these transfer agreements/courses at www.mccneb.edu/articulation.

Transfer Tips

- The two most important decisions transfer students must make are which four-year institution to attend and which bachelor's degree to work toward.
- The potential transfer student should work with an Academic Advisor from MCC and from the four-year institution they plan to attend to ensure a smooth transfer.
- Successful transfer of credit depends upon the major declared at the four-year institution. For example, courses that may successfully transfer into a psychology major may not transfer into an accounting major.
- The college or university receiving transfer courses makes the decision regarding award of transfer credit. Acceptance of credit is always up to the receiving institution.
- MCC courses that transfer as electives may or may not actually count towards a bachelor's degree. Elective credits may be used toward completion of four-year degree requirements only to the extent that the four-year degree requires elective hours.
- Developmental courses (courses below the 1000-level) are generally not transferable.
- In general, only courses in which students earn a C or higher can transfer for credit. Courses where Ds or Fs are earned are not usually transferable.
- Pass/Fail credits may or may not transfer.
- Virtually all four-year colleges have minimum residency requirements. For instance, the University of Nebraska–Lincoln requires that a student's last 30 semester hours be completed at the university.
- Credit earned through proficiency exams, clinical courses, cooperative education, work experience or practicums may not qualify for transfer.
- Transfer credits are sometimes accepted on a contingency basis. For example, the transfer student might be required to successfully complete a follow-up course before the transfer of credit is posted.
- Four-year institutions often establish limits on the number of credits that can be accepted in transfer. This may be fewer than the number of credits acquired in an associate degree program.
- General education courses (e.g., English and math) usually are transferable. Vocational, career education or technical courses may or may not transfer. Many special agreements have been signed with four-year colleges that allow for the transfer of selected courses and associate degrees in certain vocational/technical/career areas toward completion of specified bachelor's degrees.
- Only course credit transfers to an institution not grades (however, for courses to be accepted a C or higher must be earned in the course); therefore, the grades earned at MCC will not be calculated into the GPA at the four-year institution. Some institutions do look at the MCC GPA to determine graduating with honors. Grades earned at MCC will not replace a poor (D, F) grade already earned at the four-year institution.
- Quarter hours earned at MCC convert to semester hours at a ratio of 3 quarter hours to 2 semester hours. For example, a 4.5 quarter hour class transfers as 3 semester hours.

Quarter to Semester Hour Conversion Table							
Quarter	**Semester**	**Quarter**	**Semester**	**Quarter**	**Semester**	**Quarter**	**Semester**
0.5	0.33	3.5	2.33	6.5	4.33	9.5	6.33
1.0	0.67	4.0	2.67	7.0	4.67	10.0	6.67
1.5	1.00	4.5	3.00	7.5	5.00	10.5	7.00
2.0	1.33	5.0	3.33	8.0	5.33	11.0	7.33
2.5	1.67	5.5	3.67	8.5	5.67	11.5	7.67
3.0	2.00	6.0	4.00	9.0	6.00	12.0	8.00

Frequently Asked Questions

Should I check with the college or university where I am planning to transfer?
Once you choose a specific degree program and four-year institution for transfer, you should schedule an appointment with an advisor or counselor at the four-year institution. Phone numbers are listed on each of the transfer guides. Web sites are also a good resource when looking for contact information.

If I do not graduate with an MCC degree, will the program-specific courses transfer?
The Associate-to-Bachelor (A-to-B) Agreements require the completion of the entire associate degree. If you transfer before finishing the associate degree, the four-year institution will determine what transfers on a course-by-course basis.

What if I decide to change to a different four-year school?
Although most four-year institutions have degree programs that will accept your courses, there is no guarantee, and some credit hours may not transfer. Work with an advisor or counselor from both MCC and the new four-year institution to accommodate your change of plans.

Can I take additional courses beyond the degree?
Yes, although they may not transfer. Most institutions accept a maximum of 64 semester hours/96 quarter hours. Completing an associate degree will meet this maximum. Work with an advisor or counselor from both MCC and the four-year institution to determine whether additional courses will transfer.

Is there a time limit to complete an articulation agreement?
If there is a time limit, it is listed on the agreement document. Although transferring to a four-year institution immediately after graduation is not required, it is desirable. Degree plans and course requirements change, which can result in a loss of credit. It is best to transfer as soon as possible to maximize the transfer of credit.

How often do the articulation agreements change?
Agreements are reviewed annually with the publication of MCC's new catalog. MCC and the four-year institutions work closely throughout the year to keep up with program changes. Working with an advisor or counselor from both MCC and the four-year institution will keep you on the appropriate educational and career path and informed of potential changes in the degree plan.

Transcript Request Information

Upon completion of your MCC courses, a transcript will need to be sent to the four-year institution. Transcript requests can be completed online at www.mccneb.edu, in person at Student Services or through the mail. Mail-in requests can be mailed to Metropolitan Community College, Records Department, P.O. Box 3777, Omaha, NE 68103-0777 and should include your name (maiden), date of birth, social security number or MCC ID number, signature, current address, current phone number and address of institution receiving transcript.

Options

Quantitative/Numeracy Skills

MATH	1410	Statistics	4.5
MATH	1420	College Algebra	5
MATH	1430	Trigonometry	4.5
MATH	2410	Calculus I	7.5
MATH	2411	Calculus II	7.5
MATH	2412	Calculus III	6
MATH	2510	Differential Equations	4.5

Computer Sciences

INFO	1003	Introduction to Computer Programming	5
INFO	1521	Java Programming I	4.5
INFO	1522	C++ Programming I	4.5
INFO	1523	Visual Basic.NET I	4.5
INFO	1524	COBOL I	5
INFO	1531	Java Programming II	4.5
INFO	1534	COBOL II	5
INFO	1620	Database Management	4.5
INFO	2537	Data Structures	4.5
INFO	2630	Structured Query Language (SQL)	4.5

Cultural Studies

ENGL	2470	Introduction to Women's Literature	4.5
ENGL	2530	Ethnic Literature	4.5
ENGL	2490	Introduction to Latin American Literature	4.5
ENGL	2900	African-American Literature	4.5
GEOG	1050	Introduction to Human Geography	4.5
HIST	1050	Introduction to Black History	4.5
HIST	1060	History of Black Women	4.5
HIST	1110	World Civilization to 1500 I	4.5
HIST	1120	World Civilization from 1500	4.5
HIST	2200	Latin American History	4.5
HUMS	1110	Origins of the Humanities	4.5
HUMS	1140	Multi-Cultural Humanities I	4.5
HUMS	1150	Multi-Cultural Humanities II	4.5
SLIS	1150	Introduction to the Deaf World	4.5
SOCI	1100	Native American Studies	4.5
SOCI	1250	Introduction to Anthropology	4.5
SOCI	2060	Multicultural Issues	4.5

Humanities

ARTS	1000	Introduction to Visual Arts	4.5
ARTS	1010	Drawing and 2-D Design I	4.5
ARTS	1020	Drawing and 2-D Design II	4.5
ARTS	1110	Art History – Ancient to Gothic	4.5
ARTS	1120	Art History – Renaissance to Modern	4.5
ENGL	1310	Creative Writing	4.5
ENGL	2450	Introduction to Literature	4.5
ENGL	2460	Introduction to Short Stories	4.5
ENGL	2470	Introduction to Women's Literature	4.5
ENGL	2480	Introduction to Dramatic Literature I	4.5
ENGL	2481	Introduction to Dramatic Literature II	4.5
ENGL	2490	Introduction to Latin American Literature	4.5
ENGL	2510	American Literature I	4.5
ENGL	2520	American Literature II	4.5
ENGL	2530	Ethnic Literature	4.5
ENGL	2610	British Literature I	4.5
ENGL	2620	British Literature II	4.5
ENGL	2900	Special Topics in Literature	4.5
ENGL	2901	Special Topics in Writing	4.5

Continued on next page.

Social Sciences

ECON	1000	Macroeconomics	4.5
ECON	1100	Microeconomics	4.5
GEOG	1010	Fundamentals of Geography	4.5
GEOG	1050	Introduction to Human Geography	4.5
GEOG	2150	World Regional Geography	4.5
HIST	1010	U.S. History to 1877	4.5
HIST	1020	U.S. History from 1865	4.5
HIST	1050	Introduction to Black History	4.5
HIST	1070	Traditional and Modern China	4.5
HIST	1110	World Civilization I	4.5
HIST	1120	World Civilization II	4.5
HIST	2050	Modern Europe Since 1815	4.5
HIST	2200	Latin American History	4.5
POLS	2050	American National Government	4.5
POLS	2060	The Constitution	4.5
POLS	2070	Contemporary Social and Political Issues	4.5
PSYC	1010	Introduction to Psychology	4.5
PSYC	1120	Human Growth and Development	4.5
PSYC	1130	Cognitive Development	4.5
PSYC	2150/		
SOCI	2150	Survey of Human Sexuality	4.5
PSYC	2350	Fundamentals of Abnormal Psychology	4.5
PSYC	2450/		
SOCI	2450	Social Psychology	4.5
SOCI	1010	Introduction to Sociology	4.5
SOCI	1050	Sociology of Healthcare	4.5
SOCI	1100	Native American Studies	4.5
SOCI	1250	Introduction to Anthropology	4.5
SOCI	2050	Current Social Problems	4.5
SOCI	2060	Multicultural Issues	4.5
SOCI	2110	Introduction to Gerontology	4.5
SOCI	2160	Marriage and the Family	4.5
SOCI	2310	Criminology	4.5
SOCI	2311	Juvenile Justice	4.5

Natural Sciences

BIOS	1010	Introduction to Biology	6
BIOS	1111	Biology I**	5
BIOS	1121	Biology II**	5
BIOS	1130	Biology III**	5
BIOS	1310	Survey of Human Anatomy and Physiology	5
BIOS	1410	Biology of the Lower Plants	4.5
BIOS	1420	Biology of the Seed Plants	4.5
BIOS	2050	Genetics	4.5
BIOS	2150	Microbiology	6
BIOS	2310	Human Anatomy and Physiology I	6
BIOS	2320	Human Anatomy and Physiology II	6
CHEM	1010	College Chemistry	6
CHEM	1120	Chemistry for Health Sciences I	3
CHEM	1130	Chemistry for Health Sciences II	3
CHEM	1210	General Chemistry Part I	2
CHEM	1211	General Chemistry Part II	4
CHEM	1212	General Chemistry Accelerated	6

Continued on next page.

Humanities			
FREN	1010	Beginning French I	7.5
FREN	1020	Beginning French II	7.5
FREN	2010	Intermediate French I	4.5
FREN	2020	Intermediate French II	4.5
GERM	1010	Elementary German I	7.5
GERM	1020	Elementary German II	7.5
HUMS	1000	The Art of Being Human	4.5
HUMS	1100	Classical Humanities	4.5
HUMS	1110	Origins of the Humanities ☞	4.5
HUMS	1120	Western Tradition I ☞	4.5
HUMS	1130	Western Tradition II	4.5
HUMS	1140	Multi-Cultural Humanities I ☞	4.5
HUMS	1150	Multi-Cultural Humanities II ☞	4.5
HUMS	2310	Film History and Appreciation	4.5
JAPN	1010	Beginning Japanese I	7.5
JAPN	1020	Beginning Japanese II	7.5
JAPN	2010	Intermediate Japanese I	4.5
JAPN	2020	Intermediate Japanese II	4.5
JAPN	2030	Intermediate Japanese III	4.5
JAPN	2040	Intermediate Japanese IV	4.5
MUSC	1010	Introduction to Music I	4.5
MUSC	1020	Introduction to Music II	4.5
MUSC	1050	Music Appreciation	4.5
MUSC	1110	Music Fundamentals I	4.5
MUSC	1120	Music Fundamentals II	4.5
PHIL	1010	Introduction to Philosophy	4.5
PHIL	1030	Professional Ethics	4.5
PHIL	1100	Critical Reasoning	4.5
PHIL	2030	Introduction to Ethics	4.5
PHIL	2200	Introduction to Comparative Religion	4.5
PHIL	2400	Philosophy and Literature	4.5
PHIL	2600	Contemporary Issues in Philosophy	4.5
SLIS	1010	American Sign Language I	6
SLIS	1020	American Sign Language II	6
SPAN	1110	Elementary Spanish I	7.5
SPAN	1120	Elementary Spanish II	7.5
SPAN	2110	Intermediate Spanish I	4.5
SPAN	2120	Intermediate Spanish II	4.5
SPCH	1220	Communication in Small Groups	4.5
SPCH	1300	Interpersonal Communication	4.5
THEA	1000	Introduction to the Theatre	4.5
THEA	2010	Script Analysis	4.5
THEA	2020	Fundamentals of Acting I	4.5
THEA	2021	Fundamentals of Acting II	4.5
THEA	2030	Playwriting I	4.5
THEA	2031	Playwriting II	4.5
THEA	2110	Theatre History I	4.5
THEA	2120	Theatre History II	4.5
THEA	2480	Introduction to Dramatic Literature I.	4.5
THEA	2481	Introduction to Dramatic Literature II	4.5

☞ **Course can only be used to satisfy one requirement.**

Natural Sciences			
CHEM	1220	General Chemistry II	6
CHEM	2310	Fundamentals of Organic Chemistry	6
CHEM	232A	Organic Chemistry IA*	2.5
CHEM	232B	Organic Chemistry IB*	2.5
CHEM	232C	Organic Chemistry IC*	2.5
CHEM	233A	Organic Chemistry IIA*	2.5
CHEM	233B	Organic Chemistry IIB*	2.5
CHEM	233C	Organic Chemistry IIC*	2.5
ENGR	1010	Introduction to Engineering Design	4.5
ENGR	1020	MATLAB Programming	4.5
ENGR	2010	Elements of Electrical Engineering I	4.5
ENGR	2020	Engineering Statics	4.5
GEOG	1150	Introduction to Physical Geography – Weather and Climate	6
GEOG	1160	Introduction to Physical Geography – Landforms	6
GEOG	1210	Introduction to Physical Geology	6
PHYS	1010	Applied Physics	4.5
PHYS	110A	Principles of Physics IA*	2.5
PHYS	110B	Principles of Physics IB*	2.5
PHYS	110C	Principles of Physics IC*	2.5
PHYS	111A	Principles of Physics IIA*	2.5
PHYS	111B	Principles of Physics IIB*	2.5
PHYS	111C	Principles of Physics IIC*	2.5
PHYS	210A	General Physics IA*	2.5
PHYS	210B	General Physics IB*	2.5
PHYS	210C	General Physics IC*	2.5
PHYS	211A	General Physics IIA*	2.5
PHYS	211B	General Physics IIB*	2.5
PHYS	211C	General Physics IIC*	2.5
SCIE	1010	Introduction to Physical Science	6
SCIE	1300	Astronomy	4.5
SCIE	1310	Astronomy Lab	1.5

***Organic Chemistry, Principles of Physics and General Physics are taught as a three course sequence. All three courses must be successfully completed to transfer as a semester length course.**

****Entire sequence should be taken.**

Students interested in any of the transfer courses and degrees should work with an Academic Advisor from MCC and from the school you wish to transfer to in order to select the best course transfer options.

Liberal Arts/Academic Transfer (LATAA)

Award: Associate in Arts Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	69.0
Total Credit Hours Required	**96.0**

This associate in arts degree strengthens foundation skills, provides broad understanding and develops thinking skills as the student prepares for advanced sequences of courses at four-year institutions. Each transfer institution publishes requirements for admission, for general education and for major concentration areas. Student s should consult the catalog of the transfer institution of their choice. This degree can be completed online by selecting courses with the online course designation.

General Education Requirements ..... 27.0 Credit Hrs.

Communications		Credit Hrs.	Quantitative/Numeracy Skills		Credit Hrs.
ENGL 1010	English Composition I	4.5	MATH 1310	Intermediate Algebra	4.5
ENGL 1020	English Composition II	4.5			
SPCH 1110	Public Speaking	4.5			
Other		**Credit Hrs.**			
HMRL 1010	Human Relations Skills	4.5			
INFO 1001	Information Systems and Literacy	4.5			

The student should select courses from each of the following categories to meet the required credit hours. A total of 36 credits must be taken in the Social Sciences and Humanities categories combined in order to receive the Associate in Arts degree. The student should consult with an advisor or counselor to choose courses that will best meet his/her transfer needs.

Major Requirements for Liberal Arts/Academic Transfer ..... 69.0 Credit Hrs.

Quantitative/Numeracy Skills	Social Sciences
Choose 4.5 credit hours from the Mathematics courses listed on page 245-246.	Choose 9–27 credit hours from the Social Sciences courses listed on page 245-246.
Natural Sciences	**Humanities**
Choose 12 credit hours from the Natural Sciences courses listed on page 245-246. At least one course should include a lab.	Choose 9–27 credit hours from the Humanities courses listed on page 245-246.
Cultural Studies	**Electives**
Choose 4.5 credit hours from the Cultural Studies courses listed on page 245-246.	Choose 12 credit hours. Elective credits may be chosen from courses throughout the catalog, but the student is strongly advised to consult with the four-year college to which he/she plans to transfer as to the appropriateness of choosing particular courses. The degree plan that will be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC. In general, a student may rely on the courses within the above categories when choosing elective courses.

Catalogs and additional transfer information are available in Student Services or by visiting the articulation web site at www.mccneb.edu/articulation. Counselors and advisors are available to provide assistance with the selection of MCC courses that transfer to area four-year institutions.

Associate in Arts: Associate-to-Bachelors (A-to-B) Degrees

Listed below are associate in arts degree transfer agreements developed with specific courses that transfer to a four-year institution. These are special agreements with the four-year institutions, and all courses should be completed for maximum transfer. Completing an A-to-B Agreement does not guarantee admission into the four-year school.

Visit MCC's web site at www.mccneb.edu/articulation for complete course listings and requirements.

Associate in Arts Transfer Agreements	Four-Year Institution
Pre-Art Education (PSAE 1)	University of Nebraska–Omaha
Library Science Education (LSEAA)*	University of Nebraska–Omaha
Teacher Preparation :	
Early Childhood Education (ECPCA)	Chadron State
Early Childhood Education (ECPPA)	Peru State
Early Childhood Education (ECPKA)	University of Nebraska–Kearney
Early Childhood Education (ECPLA)	University of Nebraska–Lincoln
Early Childhood Education (ECPWA)	Wayne State College

Early childhood educators who are considering opening their own center are encouraged to take ENTR 1050 Introduction to Entrepreneurship. A leading cause of failure of new business endeavors is the lack of advance planning. Do not let that happen to you.

Social Science Transfer Agreements

Required and recommended courses and course sequences are in place for Liberal Arts/Academic Transfer students wanting to major in history, political science, psychology, sociology or secondarily in anthropology, geography or education (with concentration in one of the above areas). Students should consult the Social Science Program brochure and the Transfer Guides for department-specific information. Education majors should also see information about the TE@M program (Teacher Education at Metro agreement with the University of Nebraska–Omaha) at www.mccneb.edu/team. Working closely with a counselor is highly recommended.

*The Associate of Arts degree in Library Science Education is now available in Nebraska through a partnership of the Nebraska Community College System. All Library courses will need to be completed online through Central Community College in Grand Island. Library courses will transfer to MCC and UNO. For details, contact Gretchen Schaeffer, Academic Adviser, 457-2376.

LIBERAL ARTS/ACADEMIC TRANSFER – Humanities/Social Sciences (LHSCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The Transfer Studies Certificate with Humanities/Social Science emphasis provides students in pursuit of a baccalaureate degree with the proper coursework, transferable credits and level of accomplishment to successfully transfer to a four year college/university.

Graduation Requirements	
General Education	22.5
Major Requirements	25.5
Total Credit Hours Required	**48.0**

General Educational Requirements ..... 22.5 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
Select two courses from the following:		Select two courses from the Social Sciences courses listed on page 245-246.	
ENGL 1010 English Composition I	4.5		
ENGL 1020 English Composition II	4.5		
ENGL 1220 Technical Writing	4.5		
ENGL 1230 Business Writing	4.5		
ENGL 1240 Oral and Written Reports	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra **OR** any higher level Math course	4.5–7.5		

Major Requirements for Humanities/Social Sciences Transfer Studies ..... 25.5 Credit Hrs.

Humanities	Credit Hrs.	Natural Sciences/Mathematics	Credit Hrs.
Select two courses from the Humanities courses listed on page 245-246.		Select one course from the Natural Sciences/Mathematics courses listed on page 245-246.	
Electives	**Credit Hrs.**		
Choose 10.5 credit hours. Elective credits may be chosen from courses throughout the catalog, but the student is strongly advised to consult with the four-year college to which she/he plans to transfer as to the appropriateness of choosing particular courses.			

LIBERAL ARTS/ACADEMIC TRANSFER – Spanish (LTSAA)

Award: Associate in Arts Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	69.5
Total Credit Hours Required	**96.5**

The Associate in Arts in Spanish strengthens foundation skills, provides a broad understanding and develops thinking skills. It also gives students a solid knowledge of Spanish language and culture. Students who successfully complete this degree can go on to major in Spanish or international studies at a baccalaureate institution. This program also prepares students to better communicate with Spanish-speaking clients and friends in work and social situations.

General Education Requirements.....27.0

Communications		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5
Other		**Credit Hrs.**
HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

Quantitative/Numeracy Skills		Credit Hrs.
MATH 1310	Intermediate Algebra	4.5

Major Requirements for Liberal Arts/Academic Transfer – Spanish 69.5

Humanities		Credit Hrs.
Students must take these core courses:		
SPAN 1110	Elementary Spanish I	7.5
SPAN 1120	Elementary Spanish II	7.5
SPAN 2110	Intermediate Spanish I	4.5
SPAN 2120	Intermediate Spanish II	4.5
SPAN 2210	Conversation Skills I	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**
Choose 4.5 credit hours from the Math courses listed on page 245-246.		
Natural Sciences		**12 Credit Hrs.**
Choose 12 credit hours from the Natural Sciences courses listed on page 245-246.		

Social Sciences		Credit Hrs.
Choose 9 credit hours from the Social Sciences courses listed on page 245-246.		
Cultural Studies		**Credit Hrs.**
Choose 4.5 credit hours from the Cultural Studies courses listed on page 245-246.		
Electives		**Credit Hrs.**
Choose 11 credit hours from the following courses:		
SPAN 1810	Study Spanish Abroad	Variable
SPAN 1900	Special Topics in Spanish I	Variable
SPAN 2050	Intermediate Business Spanish I	4.5
SPAN 2051	Intermediate Business Spanish II	4.5
SPAN 2060	Intermediate Medical Spanish I	4.5
SPAN 2061	Intermediate Medical Spanish II	4.5
SPAN 2220	Conversation Skills II	4.5
SPAN 2490	Introduction to Latin America Literature	4.5
SPAN 2900	Special Topics in Spanish II	Variable

SPANISH – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Spanish for Medical Professionals (SMPSD)

Students who wish to study Spanish to better communicate with medical patients or clients can earn this diploma by completing the following courses. It will provide the basic knowledge to hold beginning to intermediate conversations with Spanish-speaking persons.

Requirements for Spanish for Medical Professionals Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
SPAN 1060	Spanish for Medical Personnel I	4.5
SPAN 1061	Spanish for Medical Personnel II	4.5
SPAN 2060	Intermediate Spanish for Medical Personnel I	4.5
SPAN 2061	Intermediate Spanish for Medical Personnel II	4.5
SPAN 2982	Spanish for Medical Personnel Internship	Variable

Spanish for Business Professionals (SBPSD)

Speaking and understanding Spanish is a valuable skill in today's business world. Students who wish to better communicate with Hispanic business clients can do so by completing the following specialist diploma. It will prepare them to hold beginning to intermediate conversations with Spanish-speaking persons.

Requirements for Spanish for Business Professionals Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
SPAN 1050	Spanish for Business Professionals I	4.5
SPAN 1051	Spanish for Business Professionals II	4.5
SPAN 2050	Intermediate Spanish for Business Professionals I	4.5
SPAN 2051	Intermediate Spanish for Business Professionals II	4.5
SPAN 2110	Intermediate Spanish I	4.5
SPAN 2120	Intermediate Spanish II	4.5

LIBERAL ARTS/ACADEMIC TRANSFER (LATAS)

Award: Associate in Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Graduation Requirements	
General Education	27.0
Major Requirements	69.0
Total Credit Hours Required	**96.0**

This associate in science degree strengthens foundation skills, provides broad understanding and develops reasoning skills as the student prepares for advanced studies in a natural sciences, mathematics or science-dependent program. By taking the suggested courses below, a student will be able to transfer into a baccalaureate degree program at a four-year college upon completion of the associate degree. Each transfer institution publishes requirements for admission, for general education and for major concentration areas. Students should consult the catalogs of the transfer institution of their choice.

General Education Requirements.....27.0

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1010 English Composition I	4.5	MATH 1310 Intermediate Algebra	4.5
ENGL 1020 English Composition II	4.5		
SPCH 1110 Public Speaking	4.5		
Other	**Credit Hrs.**		
HMRL 1010 Human Relations Skills	4.5		
INFO 1001 Information Systems and Literacy	4.5		

Students should select courses from each of the following categories to meet the required credit hours. Students should consult with an advisor or counselor to choose courses that will best meet their transfer needs.

Major Requirements for Liberal Arts/Academic Transfer 69.0

Quantitative/Numeracy Skills/ Computer Sciences — Credit Hrs.	Social Sciences — Credit Hrs.
Choose 4.5 credit hours from the Mathematics courses listed on page 245-246.	Choose 9 credit hours from the Social Sciences courses listed on page 245-246.
Humanities — Credit Hrs.	**Natural Sciences/Quantitative/ Numeracy Skills — Credit Hrs.**
Choose 4.5 credit hours from the Humanities courses listed on page 245-246.	Choose 28.5 credit hours from the Natural Sciences/ Mathematics courses listed on page 245-246. A minimum of 12 credit hours must be taken in the area of BIOS, CHEM, PHYS or SCIE and must include at least one lab course.
Cultural Studies — Credit Hrs.	**Electives — Credit Hrs.**
Choose 4.5 credits from the Cultural Studies courses listed on page 245-246.	Choose 18 credit hours. Elective credits may be chosen from courses throughout the catalog, but students are strongly advised to consult with the colleges to which they plan to transfer as to the appropriateness of particular courses. The degree plan that will be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC. In general, students may rely on the courses within the above categories when choosing elective courses.

Catalogs and additional transfer information are available in Student Services. Counselors and advisors are available to provide assistance with the selection of MCC courses that transfer to area four-year institutions.

Associate in Science: Associate-to-Bachelors (A-to-B) Transfer Degrees
Listed below are associate in science degree transfer agreements developed with specific courses that transfer to a four-year institution. These are special agreements with the four-year institutions, and all courses should be completed for maximum transfer. Completing an A-to-B Agreement does not guarantee admission into the four-year school.

Visit MCC's web site at www.mccneb.edu/articulation for complete course listings and the requirements.

Associate in Science Transfer Agreements	Four-Year Institution
Pre-Agricultural Sciences (LAGAS)	University of Nebraska–Lincoln
Pre-Biology (LABAS)	University of Nebraska–Omaha
Pre-BioTechnology (LBTAS)	University of Nebraska–Omaha
Pre-Chemistry (LACAS)	University of Nebraska–Omaha
Pre-Dietetics (LADTO)	University of Nebraska–Lincoln
Pre-Engineering Pre-Architectural Engineering (PEARO) Pre-Civil Engineering (PECVO) Pre-Computer Engineering (PECPO) Pre-Construction Engineering Technology (PECTO) Pre-Electronic Engineering (PEELO)	University of Nebraska–Omaha
Pre-Math (LAMAS)	University of Nebraska–Omaha
Pre-Medicine (LAPMO)	University of Nebraska Medical Center
Pre-Clinical Laboratory Science (PSMT1)	University of Nebraska–Omaha University of Nebraska Medical Center
Pre-Nursing (LASNO)	University of Nebraska Medical Center
Pre-Physics (LAPAS)	University of Nebraska–Omaha
Teacher Preparation Pre-Secondary Education Math Endorsement (LAEMO) Natural Science Endorsement (LANSO) Language Arts Endorsement (LALAO) Social Sciences Endorsement (LASSO) Pre-Deaf or Hard of Hearing Endorsement (LAPDO)	University of Nebraska–Omaha
Pre-Veterinarian (PVAAS)	University of Nebraska/Iowa State University
Certificate Agreements	**Four-Year Institution**
Pre-Elementary Education (LEECE)	University of Nebraska–Omaha

LIBERAL ARTS/ACADEMIC TRANSFER – Math/Science (LMSCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online

Graduation Requirements	
General Education	18.0
Major Requirements	30.0
Total Credit Hours Required	**48.0**

The Transfer Studies Certificate with Math/Science emphasis provides students in pursuit of a baccalaureate degree in those fields the proper coursework, transferable credits and level of accomplishment to successfully transfer to a four-year college/university.

General Education Requirements ..... 18.0 Credit Hrs.

Communications	**Credit Hrs.**	**Social Sciences**	**Credit Hrs.**
Select two courses from the following:		Select one course from the Social Sciences courses listed on page 245-246.	
ENGL 1010 English Composition I	4.5		
ENGL 1020 English Composition II	4.5		
ENGL 1220 Technical Writing	4.5		
ENGL 1230 Business Writing	4.5		
ENGL 1240 Oral and Written Reports	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra **OR** any higher level MATH course	4.5–7.5		

Major Requirements for Math/Science Transfer Studies ..... 30.0 Credit Hrs.

Humanities	**Credit Hrs.**	**Natural Sciences/Quantitative/Numeracy Skills**	**Credit Hrs.**
Select one course from the Humanities courses listed on page 245-246.		Select one course from the Social Sciences courses listed on page 245-246.	
Electives	**Credit Hrs.**		
Choose 13.5 credit hours. Elective credits may be chosen from courses throughout the catalog, but the student is strongly advised to consult with the four-year college which he/she plans to transfer as to the appropriateness of choosing particular courses.			

GENERAL STUDIES (GSAAS)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

The General Studies degree focuses on career areas as well as general education. It offers students an associate degree program that allows some latitude in selection of courses in areas of interest. Student s should work with an advisor or counselor in planning the coursework for this degree.

Graduation Requirements	
General Education	42.0
Major Requirements	36.0
Electives	18.0
Total Credit Hours Required	**96.0**

General Education Requirements ..... 42.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Social Sciences (see page 40, 245-246)	4.5
ENGL 1020 English Composition II	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
Mathematics (see page 40, 245-246)	4.5–7.5*	Natural Sciences (see page 40, 245-246)	6
Humanities	**Credit Hrs.**	**Other**	**Credit Hrs.**
Humanities (see page 40, 245-246)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

*Only students who have completed the Professional Skills Specialist Diploma will need to complete the 7.5 credit hour Math requirement.

Major Requirements for General Studies .....36.0 Credit Hrs.

Courses	Credit Hrs.
Complete a minimum of 36 credit hours of courses, selecting from a maximum of two prefixes.	

Electives for General Studies .....18.0 Credit Hrs.

Courses	Credit Hrs.
Choose 18 credit hours	

General Studies Degree Options

Listed below are General Studies degree options that allow students to tailor a specific interest into an associate degree program.

General Studies Degree Options
Cultural Studies (GSCSO)

General Studies: Associate-to-Bachelor (A-to-B) Agreements

Listed below are General Studies degree transfer agreements developed with specific courses that transfer to a four-year institution. These are special agreements with the four-year institution, and all courses should be completed for maximum transfer. Completing an A-to-B Agreement does not guarantee admission into the four-year school. Visit MCC's web site at www.mccneb.edu/articulation for complete course listings and requirements.

General Studies Transfer Agreements	Four-Year Institution
Pre-Criminal Justice (PUCJO)	University of Nebraska–Omaha
Pre-Health Related Business (PSHBO)	Clarkson College
Pre-Secondary Education	
Industrial Technology Endorsement (PSITO)	Wayne State College
Industrial Technology Endorsement (ITAS1)	University of Nebraska–Lincoln

Some of the A-to-B Agreements were developed with students taking courses from more than two prefixes and are only acceptable in the designated option.

For the student interested in management, any combination of the following prefixes will be considered as a single prefix: ACCT, BSAD, ECON, ENTR, FINA, INSU and REES.

For the student interested in science/health, any combination of the following prefixes will be considered as a single prefix: BIOS, CHEM and SCIE.

For the student interested in visual arts, any combination of the following prefixes will be considered as a single prefix: ARTS, EIMA, GCAD, PHOT and VACA.

PROFESSIONAL SKILLS – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

Professional Skills (PSKSD)

This diploma is designed to give individuals the skills employers want—skills in goal setting, problem solving, teamwork, listening and interpersonal communication, customer service and applied math. The program works closely with many employers in the MCC service area to help place individuals in entry-level, career-path employment.

Requirements for Professional Skills Diploma.....25.5 Credit Hrs.

Courses		Credit Hrs.
WORK 1400	Employability Skills	3
WORK 1410	Secrets of Business Success	3
ENGL 1210	Applied Communication	4.5
MATH 1220	Business Mathematics	4.5
Electives		10.5
Elective credits may be chosen from 1000-level and 2000-level courses throughout MCC's catalog to fit with a student's career interest area.		

Customer Service Representative (PSCSD)

This diploma is designed to prepare students to work as customer service representatives for business and industry.

Requirements for Customer Service Diploma .....24.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1010	Customer Service Skills	4.5
BSAD 1000	Introduction to Business	4.5
WORK 1400	Employability Skills **OR**	
HMRL 101B	Strategies for Personal Success in the Workplace **AND**	
HMRL 101C	Strategies for Working with Others	3
INFO 1001	Information Systems and Literacy	4.5
HMSV 1110	Interpersonal Communication Skills	3.5
INFO 1008	Business Office Communications	4.5

Project Management (PSPSD)

Requirements for Project Management Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1011	Project Management I	4.5
INFO 1214	Business Presentations	4.5
INFO 1021	Project Management II	4.5
BSAD 2100	Principles of Management	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5

COURSE DESCRIPTIONS

On the following pages are course descriptions for credit courses offered by MCC. Each course can be identified by a lettered subject and a course number followed by the title and a series of numbers as illustrated below. Those courses with a zero as the first digit of the course number are designated as developmental and may not be used to fulfill degree requirements (i.e. ENGL 0960).

INFO **1001** **Information Systems and Literacy**

Course title
Course number
Course subject
Course is offered via online
Course is offered in a hybrid format

3 – 4.5 – 4.5
Lecture/classroom hours per week
Lab/clinical hours per week
Credit hours

Prerequisites – A prerequisite—or its equivalent—must be met before the student is admitted in a course. A prerequisite may be a specific high school course, another MCC course or a demonstrated proficiency. Prerequisites may be waived on the basis of proficiency testing and/or the recommendation of an appropriate faculty member or academic dean.

Co-requisites – Co-requisites are required program courses that must be taken simultaneously; a grouping of courses that must all be taken within the same quarter.

Accounting	ACCT
Arabic	ARAB
Architectural Design Technology	ARCH
Art	ARTS
Auto Collision Technology	AUTB
Automotive Technology	AUTT
Biology	BIOS
Business Management	BSAD
Chemistry	CHEM
Civil Engineering Technology	SCET
Construction Technology	CNST
Criminal Justice	CRIM
Culinary, Hospitality, Research and Management	CHRM
Dental Assisting	DENT
Diesel Technology	DESL
Early Childhood Educator	ECED
Economics	ECON
Education	EDUC
Electrical Apprenticeship	ELAP
Electrical Technology	ELTR
Electronic Imaging and Media Arts	EIMA
Electronics Technology	ELEC
English	ENGL
English-as-a-Second Language	ESLX
Entrepreneurship	ENTR
Finance	FINA
Fire Science Technology	FIST
French	FREN
Geography	GEOG
German	GERM
Graphic Communication Arts and Design	GCAD
Health	HLTH
Health Information Management Systems	HIMS
Heating, Air Conditioning and Refrigeration	HVAC
History	HIST
Horticulture	HORT
Humanities	HUMS
Human Relations	HMRL
Human Services	HMSV
Industrial and Commercial Trades	INCT
Information Technology	INFO
Insurance	INSU
Interior Design	INTD
Japanese	JAPN
Languages	LANG
Legal Studies	LAWS
Mathematics	MATH
Mechanical Design Technology	DRAF
Music	MUSC
Nursing	NURS
Philosophy	PHIL
Photography	PHOT
Physical Education	PHED
Physics	PHYS
Plumbing Apprenticeship	PLAP
Political Science	POLS
Pre-Engineering	ENGR
Psychology	PSYC
Reading and Learning Skills	RDLS
Real Estate	REES
Reserve Officers Training	ROTC
Respiratory Care Technology	RESP
Science	SCIE
Sign Language Studies	SLIS
Sociology	SOCI
Spanish	SPAN
Speech	SPCH
Theatre	THEA
Utility Line Technician	UTIL
Video/Audio Communication Arts	VACA
Welding Technology	WELD
Workplace Skills	WORK

ACCOUNTING (ACCT)

The student can use a calculator in accounting courses; in fact, it is highly recommended.

Accounting courses are time-consuming. The student should keep that in mind when developing his/her schedule.

ACCT 1050 Bookkeeping 3 – 0 – 3
This course includes an introduction to the accounting cycle, basic procedure in double-entry bookkeeping and an examination of the parts of the income statement and balance sheet financial statements. Emphasis is placed on cash receipts, cash disbursements, accounts receivable and accounts payable.

ACCT 1060 Payroll Accounting 3 – 0 – 3
Prerequisite (1): ACCT 1050 or ACCT 1100
An in-depth study of various payroll systems, this course includes the study of related law and practices. The student practices preparing payrolls and computing deductions. Emphasis is placed on actual preparation of payroll projects, including payroll tax returns.

ACCT 1070 Individual Income Tax Accounting 4 – 0 – 4
This course is an introductory survey of current individual income tax laws. Topics include basic filing requirements, includable income, adjustments, itemized deductions and tax credits.

ACCT 1100 Accounting I* 4 – 1 – 4
This is the first of three accounting courses covering principles of accounting. It emphasizes the fundamental principles of accounting. Students are provided a balanced, comprehensive coverage of financial topics. Real-world illustrations are incorporated reflecting current relevant business practices. The course content acquaints students with the basic accounting cycle, linkage between the journal entry and ledger account, adjusting process, internal control, merchandising, inventories and financial reporting.

ACCT 1110 Accounting II* 4 – 1 – 4
Prerequisite (1): ACCT 1100
This is the second of three accounting courses. The course content includes short- and long-term assets, current liabilities, components of stakeholders' equity, the corporate income statement, bonds payable, statement of cash flows and financial statement analysis. Real-world illustrations are incorporated reflecting current relevant business practices and applications of accounting principles.

ACCT 1120 Accounting III* 4 – 1 – 4
Prerequisite (1): ACCT 1110
This is the final course of the three accounting principles series offering introduction to management accounting, manufacturing operations and cost accounting systems. Other topics covered include budgeting, cost-volume-profit analysis, performance evaluation using variances, differential analysis, product pricing, decision making and capital investment analysis. Applications of well-known companies are illustrated throughout the course.

**The student should attempt to take ACCT 1100, ACCT 1110 and ACCT 1120 immediately after one another to facilitate understanding and learning. It is helpful to complete the math requirements early in the program of study.*

ACCT 1210 Accounting with QuickBooks* 3 – 0 – 3
This course is an introduction to the QuickBooks software program. The student uses the QuickBooks software to record transactions related to sales, sales invoicing, purchases, purchase invoicing, receipts, payments and payroll. The student uses the software to generate financial statements and other financial reports.

**It is helpful, though not required, for students taking ACCT 1210 Accounting with QuickBooks to have had either high school bookkeeping classes or have taken ACCT 1050 Bookkeeping.*

ACCT 2120 Intermediate Accounting I* 4 – 0 – 4
Prerequisite (1): ACCT 1110
This course is an advanced study of financial accounting. This course emphasizes basic accounting theory, financial statement presentation, income and loss recognition, statement of cash flows, accounting treatment of current items and a study of compound interest and annuities.

**ACCT 2120 may be taken concurrently with ACCT 1120.*

ACCT 2130 Intermediate Accounting II 4 – 0 – 4
Prerequisite (1): ACCT 2120
This is a continuation of accounting theory as related to current and non-current financial statement items. Emphasis is on plant assets, intangibles, short- and long-term liabilities and stockholder's equity.

ACCT 2140 Intermediate Accounting III 4 – 0 – 4
Prerequisite (1): ACCT 2130
This course is a continuation of accounting theory. Traditional and current subjects of controversy are examined. Emphasis is on income taxes, leasing, accounting changes and pensions.

ACCT 2230 Microcomputer Business Applications* **4 – 0 – 4**
Co-requisite (1): ACCT 1110
The student creates spreadsheets using accounting and spreadsheet software representative of that used by small- and medium-sized businesses. Microcomputers are used for general ledger, accounts receivable/payable and payroll transactions. The student creates spreadsheets to be used in the general areas of analysis, forecasting, problem solving and decision making.

> **Considering ACCT 2230? If a student has not taken INFO 1001 but have work or high school experience with spreadsheets (and have met the other prerequisite), placement in the class may be possible. Call Bob Gronstal at (402) 738-4086.*

ACCT 2330 Managerial Cost Accounting **4 – 0 – 4**
Prerequisite (1): ACCT 1120
This course emphasizes the role of the accountant or manager as decision-maker. The course involves a study of relevant costs for decision making; contribution margin approach to decision making; absorption costing versus direct costing and effect on income; capital projects, selection and subsequent evaluation; cost volume profit relationships; inventory planning and control; decision making and allocation involving joint costs; and decentralization, performance measurement and transfer pricing.

ACCT 2900 Special Topics in Accounting **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas that are not appropriately treated in other accounting courses.

ACCT 2940 Business Plan Capstone **1.5 – 0 – 1.5**
Prerequisite (1): Completion of 85+ quarter hours in the Business Management or Accounting associate degree/option
The capstone course is an independent study course where the student demonstrates competencies in the areas of management, finance, accounting and report writing by developing a draft and finalized business plan on a student/faculty agreed upon business concept. Part of the requirement of this course is a comprehensive exam covering accounting, management, marketing and general business topics. (Cross-listed as BSAD 2940)

ACCT 2981 Internship **Variable – 3 – 4.5**
Prerequisite (1): Instructor approval
The student applies the principles, procedures and rules learned in financial accounting, cost/managerial accounting, income tax accounting or payroll accounting in an actual work environment. The work setting should be in a public accounting office or the accounting department of a business or nonprofit organization. The student records the tasks performed in a notebook that is reviewed periodically by the work supervisor and faculty sponsor to assure that appropriate competencies are developed or reinforced. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

ARABIC (ARAB)

ARAB 1010 Introduction to Arabic **7.5 – 0 – 7.5**
This course is focused on how to pronounce the Arabic sounds and the Arabic letters. In addition, the course will introduce common Arabic greetings in standard and colloquial Arabic, common phrases, basic vocabulary and some Arabic cultural aspects. The main teaching method will be classroom-based using a textbook that is accompanied by DVDs. The DVDs are interactive and can be used outside the classroom to practice listening exercises and writing drills. The textbook contains visual footage of calligrapher writing to be used as a model to follow as the student works through them.

ARCHITECTURAL DESIGN TECHNOLOGY (ARCH)

ARCH 1000 Appreciation of Architecture☯ **4.5 – 0 – 4.5**
The student taking this course surveys the art of architecture, the design process, the language of architecture, how methods and materials shape buildings, the relationship between structural types and the use of space and how architecture reflects the culture for which it was built.

ARCH 1100 Beginning AutoCAD **4.5 – 0 – 4.5**
This course introduces the student to classical drawing techniques and computer-aided design methods using AutoCAD™ software. Drawing terminology, text creation/editing, dimensioning, AutoCAD menus, file manipulations, plotting and geometric construction techniques are used to create 2-D drawings.

ARCH 1110 Intermediate AutoCAD **4.5 – 0 – 4.5**
Prerequisite (1): ARCH 1100 or instructor approval
The student learns drawing techniques including section views, auxiliary views and dimensioning styles using AutoCAD™ software. AutoCAD commands include model and paper space viewports, polylines, multilines and splines, annotation with text, use of attributes for data storage and extraction, xrefs and basic 3-D drawing techniques.

ARCH 1120 Beginning REVIT (Building) **4 – 0 – 4**
Hands-on experience with Autodesk™ software will introduce the student to the basic functions of Building Information Modeling (BIM). Concentration is on building parts—walls, floors, roofs, doors, windows—, and construction documents will be produced from 3-D models.

ARCH 1130 Intermediate REVIT (Building) 4 – 0 – 4
Prerequisite (1): ARCH 1120
Hands-on experience with Autodesk™ REVIT Building software will allow students to continue the work started in Beginning REVIT. Concentration is on schedules, family components, production of construction documents and rendering.

ARCH 1200 Woodframe Architecture 8 – 0 – 8
Prerequisites (2): ARCH 1000 and ARCH 1110
The student investigates the process by which architects and drafters determine the form of a small wood frame building and produce the set of drawings, models and specifications used to build the building.

ARCH 2410 Commercial Architecture 8 – 0 – 8
Prerequisite (1): ARCH 1200
The student will design and graphically document several aspects of commercial architecture including steel/masonry structures, electrical, plumbing and HVAC.

ARCH 2420 Renovation Architecture 8 – 0 – 8
Prerequisite (1): ARCH 1200
The student will encounter the problems involved in changing the usage of a building including antique/dangerous materials, specification writing, ADA and other codes and cost estimating.

ARCH 2520 Beginning 3-D Studio Max 4 – 0 – 4
Prerequisite (1): ARCH 1110
Hands-on experience with this 3-D modeling, rendering and animation software introduces the student to the creation of 3-D models, materials, lighting and key frame animation.

ARCH 2530 Intermediate 3-D Studio Max 4 – 0 – 4
Prerequisite (1): ARCH 2520
Students will continue the work they began in ARCH 2520 by designing, developing and polishing a project that will demonstrate their ability to create three-dimensional models and animations.

ARCH 2600 High Rise Architecture 8 – 0 – 8
Prerequisite (1): ARCH 1200
The student will focus on vertical buildings including structure, mechanical core, vertical transportation, egress, fire protection and parking.

ARCH 2900 Special Topics in ARCH Variable
Prerequisites (2): ARCH 1110 and instructor approval
This course permits instruction in special content areas not included in other courses of the Architectural Design Technology Program.

ARCH 2981 Internship Variable
Prerequisite (1): Instructor approval
The internship program provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested student should contact his/her faculty advisor or the appropriate academic dean. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

ART (ARTS)

ARTS 1000 Introduction to the Visual Arts 4.5 – 0 – 4.5
The purpose of this art appreciation course is to foster a broad understanding of the visual arts. The course content deals with understanding why and how artists create and also the important role culture and history play in the purpose and meaning of art. It includes an overview of the creative process, the evolution of art and how art relates to society.

ARTS 1010 Drawing and 2-D Design I 2.5 – 6 – 4.5
This course deals with improving visual perception and observational drawing skills. Activities include a variety of techniques, from quick sketches to drawings that take several hours to complete. Students will learn to use a variety of media such as charcoal, Conté crayon and pen and ink. Drawing from direct observation and the imagination will provide an avenue for learning different ways of composing picture space. Assignments focus on creative visual problem solving.

ARTS 1020 Drawing and 2-D Design II 2.5 – 6 – 4.5
Prerequisite (1): ARTS 1010
In this course, students use drawing and design skills acquired in Drawing and 2-D Design I to further enhance them while learning about modern and contemporary art. The students are exposed to a variety of drawing and design techniques that include color, collage, mixed media and photography. Exposure to the computer as an art tool is encouraged but optional. Emphasis is placed on formal composition, visual communication and creativity as well as observational drawing.

ARTS 1030 3-D Studio 2.5 – 6 – 4.5
Prerequisite (1): ARTS 1010
This course is an introduction to 3-D design and concentrates on the principles and elements of 3-D form and space. Traditional processes include construction, carving, assembling and modeling. Computer 3-D modeling programs may be used.

ARTS 1040 4-D Studio* **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1020
This course is an introduction to basic concepts of time, change and movement as they relate to the visual arts. Activities focus on the use of computers, video, photo and sound but also rely on drawing and design skills acquired in earlier art courses. Linear and interactive design problems stress critical thinking through series, sequence and visual narrative and also explore pacing, sound and image relationships.

> **The student is recommended to take INFO 1001 prior to taking ARTS 1040.*

ARTS 1110 Art History – Ancient to Gothic* **4.5 – 0 – 4.5**
This is a survey of the major developments in painting, sculpture and architecture from Paleolithic cave paintings through the Middle Ages with introductions to the arts of Asia, Africa and Pre-Columbian America. Students will gain an understanding of the formal element of visual communication and the use of visual arts in social and historical context.

ARTS 1120 Art History – Renaissance to Modern* **4.5 – 0 – 4.5**
This course is a survey of the major developments in painting, sculpture and architecture from the European Renaissance into the modern era with introduction of the arts of Asia, Africa and Pre-Columbian America. Students will gain an understanding of the formal element of visual communication and the use of visual arts in social and historical context.

> **The student is recommended to take ENGL 1020 prior to taking ARTS 1110 or ARTS 1120. Because of the level of reading and writing for this course, the student should have a solid foundation in both.*

ARTS 2010 Life Drawing **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1020
This is an advanced drawing class that emphasizes drawing the human form with a variety of media. Students draw from the model and study the human figure in action and in still poses. The course includes rapid sketching, portraiture, long poses and memory work using primarily charcoal, Conté crayon, ink and pastels.

ARTS 2020 Elementary Painting **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1020
This course introduces students to fundamental painting concepts and techniques. The emphasis is on studio practices, color, paint manipulation and visual perception. Students explore a variety of subject matter, formal issues and expression within the context of historical and contemporary painting.

ARTS 2025 Watercolor **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1010
This course introduces water media to the beginning student. Students will explore color, composition and a variety of techniques such as wet-in-wet, dry brush and mixed media. Students develop an individual approach to painting with an emphasis on technique. The course also covers a variety of subject matter to include objective reality and subjective imagination.

ARTS 2030 Elementary Sculpture **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1030
This beginning sculpture course emphasizes hands-on studio work that results in finished pieces of sculpture. Most of the energy of the course will revolve around researching, designing, constructing and installing sculpture. Students may work with traditional media of clay, plaster, wood and metal as well as the expanding contemporary media of installation, video, performance, internet, electronics, etc.

ARTS 2040 Elementary Printmaking **2.5 – 6 – 4.5**
Prerequisite (1): ARTS 1010
Printmaking is an introductory course focusing primarily on relief and intaglio types of printing. Lithography and screen-printing may also be explored. Solar plates, Pronto Plates or other print technologies using computer-generated or photographic imagery will also be taught. Studio activities focus on the creation of substrates whose surfaces are saturated with ink and then hand-printed onto paper or another surface, allowing the creation of multiple originals

ARTS 2050 Elementary Ceramics **2.5 – 6 – 4.5**
This course is an introduction to basic principles, concepts, history and skills of studio ceramics.
The class will survey historical and contemporary approaches and concerns. Students will fabricate a variety of projects involving vessel-making (hand-built and wheel-thrown) and sculptural techniques as well as observe various firing and finishing processes. Basic health and safety issues will be addressed.

ARTS 2060 Elementary Jewelry **2.5 – 6 – 4.5**
This course is designed to introduce students to the art of jewelry design. Students will become familiar with jewelry design from past to contemporary trends. Various techniques including etching, soldering, casting, piercing and stone setting will be taught. Students will become aware of how to operate tools and machinery in jewelry construction. Emphasis will be placed on design principles including contrast, emphasis, repetition (pattern) and balance. Critical thinking, aesthetics and craftsmanship will be the core of jewelry design.

ARTS 2120 Intermediate Painting 2.5 – 6 – 4.5
Prerequisites (2): ARTS 2010 and ARTS 2020
Intermediate Painting is designed to take students beyond fundamental studio practices, painting concepts and skills, toward an increased understanding of paint media and the ability to paint. A set of advanced problems involving color, techniques, subject matter and formal issues are addressed in projects that become increasingly more self-determined. Students are encouraged to develop self expression through painting while actively researching and learning from other painters, both contemporary and historical.

ARTS 2130 Intermediate Sculpture 2.5 – 6 – 4.5
Prerequisite (1): ARTS 2030
This hands-on studio course is a continuation of ARTS 2030. A wider range of choices will be left to the individual within a structured environment of criticism and instruction. Students are encouraged to explore personal areas of interest and are required to develop a familiarity with the history of sculpture as well as mastering chosen sculpture techniques.

ARTS 2150 Intermediate Ceramics 2.5 – 6 – 4.5
Prerequisite (1): ARTS 2050
This course continues and deepens the exploration of skills, concepts and history of studio ceramics begun in ARTS 2050. Students will be coached in problem-seeking/solving and encouraged to identify and negotiate the path(s) they wish to take forward. In addition to learning to plan and fabricate more complex forms, students will participate in loading and firing electric and gas (when available) kilns and discuss material and equipment sourcing and opportunities for continuing their studio practice inside and outside the academic setting.

ARTS 2160 Intermediate Jewelry 2.5 – 6 – 4.5
Prerequisite (1): ARTS 2060
Intermediate Jewelry is designed for the student who has mastered the techniques and process taught in Elementary Jewelry. This course stresses creative solutions to more advanced design problems.

ARTS 2220 Art Gallery Management 2.5 – 6 – 4.5
This course is an introduction to gallery management including planning, preparation, installation and publicizing of exhibitions. Students will gain practical experience at MCC's Elkhorn Valley Campus Art Gallery. Periodic field trips to other galleries required.

ARTS 2900 Special Topics in Art 2.5 – 6 – 4.5
Prerequisite (1): Instructor Approval
This course permits instruction in special content areas not included in other courses of the art program.

AUTO COLLISION TECHNOLOGY (AUTB)

AUTB 1000 Automotive Welding I 2 – 3 – 3
The student learns techniques of oxyacetylene cutting and welding for automotive applications. He/she is introduced to the theory and use of the metal inert gas (MIG) welder and the plasma-cutting torch in the repair of high strength steel structural and nonstructural body components.

AUTB 1010 Automotive Welding II 2 – 3 – 3
Prerequisite (1): AUTB 1000
The student continues to build his/her skills in automotive welding applications. The MIG (metal inert gas) welding equipment is taught. Various types and positions of welds are stressed.

AUTB 1100 Structural Repair I 2 – 3 – 3
Prerequisite (1): Mechanical aptitude test or AUTT 1000
The student learns to analyze various types of vehicle damage, interpret dimension specification sheets and how to select and set up various types of measuring systems used for damage analysis.

AUTB 1110 Structural Repair II 2 – 3 – 3
Prerequisite (1): AUTB 1100
The student learns the techniques of anchoring and pulling a damaged vehicle frame. The student works with high strength steel and learns full and partial panel replacement.

AUTB 1200 Nonstructural Repair I 4 – 6 – 6
This course provides the fundamentals of shop safety, tool application, damage repair preparation, metal straightening techniques and the use of body fillers in the repair of collision damaged vehicles.

AUTB 1210 Nonstructural Repair II 4 – 6 – 6
Prerequisite (1): AUTB 1200
This course continues to build skills acquired in the basic course. The student learns the techniques of door skin replacement and how to work with trim and hardware. Other related subjects are covered.

AUTB 1220 Nonstructural Repair III 4 – 6 – 6
Prerequisites (2): AUTB 1210 or equivalent and AUTB 1010
Evaluating major body damage and determining the necessary repairs are the major focus of this course. The complete job is stressed from body repair to final refinishing.

AUTB 1300 Street Rod Restoration I 2 – 3 – 3
Constructing or restoring a good street rod requires starting with a good classic auto and a good design.
This course provides the student with the skills needed to do this by providing the fundamentals in research and planning needed to build a street rod or restore a classic car.

AUTB 2120 Structural Repair III 2 – 3 – 3
Prerequisite (1): AUTB 1110 or equivalent
The student analyzes the damaged vehicle in-depth. Major damage repair is practiced including alignment and straightening of unitized bodies. The student learns the alignment of door and window openings.

AUTB 2230 Nonstructural Repair IV 4 – 6 – 6
Prerequisite (1): AUTB 1220
This class requires the student to repair and refinish collision damage equal to 30 flat-rate hours. MIG welding and suspension damage are stressed.

AUTB 2240 Nonstructural Repair V 4 – 6 – 6
Prerequisites (2): AUTB 2230 and 45 credits of AUTB courses
In this class, the student is required to repair collision damage equal to 40 flat-rate hours. Restraint systems and glass installation are covered.

AUTB 2241 Nonstructural Repair VI 4 – 6 – 6
Prerequisite (1): AUTB 2240
This class requires the student to complete 60 flat-rate hours of collision repairs. Frame and suspension alignment, electrical systems, heating and air conditioning are covered.

AUTB 2300 Automotive Refinishing I 2 – 3 – 3
The student is introduced to EPA, personal health and safety equipment regulations. Introductions to finish systems, metal prep, sealers and primers and masking techniques are taught in this session.

AUTB 2310 Automotive Refinishing II 4 – 6 – 6
Prerequisite (1): AUTB 2300
This course is a continuation of Automotive Refinishing I with emphasis placed on solving paint application problems. Paint mixing, matching and applications, finish defects, causes and cures are practiced.

AUTB 2340 Automotive Custom Painting 2 – 3 – 3
Prerequisite (1): AUTB 2310 or any one of the following: Associate Degree in Auto Collision Technology, ASE Certified Refinish Technician or five years documented work as a refinish technician
This course will give advanced students insight and experience in the area of custom painting of automobiles, motorcycles, street rods and other vehicles. Masking, paint types, pinstriping, design layout, stencils and mixing custom colors are among the topics covered.

AUTB 2450 Collision Estimating 2 – 3 – 3
The student learns the systematic approach to analyzing collision damage and creating a damage report manually. Different types of damage, plan for repairs, repair or replace decisions and use of crash guides are covered.

AUTB 2550 Electrical and Mechanical Systems 2 – 3 – 3
The student is introduced to mechanical and electrical systems of the automobile. Steering, brakes, drive line, air bags and electrical components are covered.

AUTB 2900 Special Topics in AUTB Variable
Prerequisite (1): Instructor approval
This course provides the opportunity for other instruction in special content areas not included in other courses.

AUTB 2981 Auto Body Internship Variable
Prerequisites (2): AUTB 2230 and instructor approval
The internship program provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested student must contact his/her faculty advisor or the appropriate academic dean. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

AUTOMOTIVE TECHNOLOGY (AUTT)

AUTT 0900 Automotive Fundamentals Assessment 0.5 – 3 – 1.5
Students that are unable to meet prerequisites for AUTT 1010 are required to take this class. This class is designed to allow students the opportunity to demonstrate that they have the mechanical aptitude and basic skills required to work on cars. There is a limited amount of instruction given in this class. The majority of the class time is spent in lab disassembling a car. Failing this class prevents the student from entering the program. This class does not teach students how to work on cars. This class is closed enrollment and is only offered during the Summer quarter.

AUTT 1010 Introduction to Auto Service and Minor Repair☯ 3 – 9 – 6
Prerequisites (3): Mechanical Aptitude Test, hands-on nuts/bolts test and test into College-level math (MATH 1240); concurrent enrollment is allowed in AUTT 1210 for the day program and AUTT 1510 for the evening program
This beginning class is introductory in nature. It deals with many of the basic elements of the auto repair trade. Items covered are safety, chemicals, fasteners, micrometers, tires, lubrication, cooling systems, bulb replacement, fluid changes, belts and manuals. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1210 Automotive Electricity and Electronics I **3 – 9 – 6**
Prerequisite (1): AUTT 1010 or instructor approval
Basic electrical theory is covered including Ohm's law and basic DC circuits. Through the use of specially designed electrical trainers and hands-on experience, electrical systems common to the automobile are investigated. The theory, construction, operation and testing of batteries are also explained and demonstrated. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1220 Automotive Electricity and Electronics **3 – 9 – 6**
Prerequisite (1): AUTT 1210 or instructor approval
The fundamentals of automotive computers and their relationship with sensor inputs and actuator outputs are studied along with advanced diagnostics procedures of electronic body electrical systems. Disassembly, testing, servicing and reassembling of starters and alternators are practiced. The design, operation and testing of anti-lock brake and transaction control systems are also studied in this course. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1510 Brake Systems☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1010 or instructor approval
Classroom and lab hours are spent on the proper repair and diagnosis of modern brake systems. Components such as power boosters, master cylinders and drum and disc brake hardware are studied in detail. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1620 Climate Control/Heating and Air Conditioning☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1210 or instructor approval
Automotive heating and air conditioning are studied extensively. The principles of troubleshooting and repair are discussed, and the course concludes with automatic temperature control operation and testing. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1710 Engine Mechanical Services☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1010 or instructor approval
This course covers the diagnosis and repair of upper engine components. The major objective of this course is to properly diagnose engine problems, estimate repair costs and repair the engine as necessary to conform to service specifications. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2310 Suspension Systems☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1010 or instructor approval
This course covers the operation, diagnosis and repair of front and rear suspension systems. Manual and power steering systems, tire and wheel balance, tire wear and four-wheel alignment are an intricate part of this course of study. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2410 Basic Drivability☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1210 or instructor approval
This course covers the basics of engine performance. The interrelationships of electronic systems and the use of specialized test equipment to diagnose drivability problems are emphasized. Fuel injection and fuel system components, fuel pump testing and injector testing are studied. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2430 Advanced Drivability☯ **3 – 9 – 6**
Prerequisite (1): AUTT 2410 or instructor approval
Major phases of engine analysis, performance, fuel systems, emission controls and five-gas exhaust analysis are studied in detail in this course. Oscilloscopes, diagnostic equipment and scan tools are used. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2810 Manual Transmissions and Drive Trains **3 – 9 – 6**
Prerequisite (1): AUTT 1010 or instructor approval
The operation, diagnosis and repair of manual transmissions and clutches are studied in this course. Types of drivelines, differentials, CV joints, transfer cases and four-wheel drive systems are also covered. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2820 Automatic Transmissions☯ **3 – 9 – 6**
Prerequisite (1): AUTT 1210 or instructor approval
This course covers the basic theory of operation of rear wheel drive transmissions. Torque converters, hydraulic systems, repair and diagnosis are explored in this course of study. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2830 Automatic Transaxles☯ **3 – 9 – 6**
Prerequisite (1): AUTT 2820 or instructor approval
This course covers theory and associated drive system components. Diagnosis and repair are also included to enhance the student's skills. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2900 Special Topics in AUTT **Variable**
This course permits instruction in special content areas not included in other courses of the Automotive Technology Program.

AUTT 2981–2989 On-the-Job Training/ Work Experience **0 – 40 – 8**
Prerequisites (2): Instructor approval and an approved worksite
The internship program provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an automotive dealer or independent garage. Individualized hands-on laboratory training utilizing live work is included in this course.

BIOLOGY (BIOS)

BIOS 1010 Introduction to Biology* **5 – 3 – 6**
Prerequisites (2): College-level reading proficiency and SCIE 0900 or assessment testing
Developing a good understanding of the process of life requires the student to have a broad background in the basics of biology. BIOS 1010 provides this background by emphasizing ecology, molecular biology, cell structure and function, genetics and evolution. This course includes both lecture and lab components.

> **For BIOS 1010 hybrid sections, there are five mandatory on-campus labs at about two-week intervals. There is a mandatory orientation meeting at the beginning of the quarter. For each lab missed, six percent will be deducted from the final grade. Auditory learners will be most successful with this class format.*
>
> *To check your learning style, visit www.ncsu.edu/felder-public/ILSdir/styles.htm.*

BIOS 1111 Biology I **4 – 3 – 5**
Prerequisites (2): College-level reading and SCIE 0900 or assessment testing.
This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121 and BIOS 1130. In this first course in the sequence, the student studies the cellular, molecular and genetic bases for life process. The course includes both the lecture and lab components. All three courses must be successfully completed to transfer as a two-semester general biology course. (Formerly BIOS 1120)

BIOS 1121 Biology II **4 – 3 – 5**
Prerequisite (1): BIOS 1111
This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121 and BIOS 1130. In this second course in the sequence, the student studies ecology and evolutionary biology. The course includes both the lecture and lab components. All three courses must be successfully completed to transfer as a two-semester general biology course. (Formerly BIOS 1110)

BIOS 1130 Biology III **4 – 3 – 5**
Prerequisite (1): BIOS 1121
The last in a three-course sequence, this course emphasizes structure and function of plant and animal organ systems. This course includes both lecture and lab components.

BIOS 1310 Survey of Human Anatomy and Physiology **4 – 3 – 5**
Prerequisite (1): SCIE 0900 or assessment testing
This survey course includes all systems of the human body emphasizing the relationship between structure and function. It is intended for certificate-seeking students in MCC programs; transfer elsewhere as anatomy/physiology credit is not assured. This course includes both lecture and lab components.

BIOS 1410 Biology of the Lower Plants* **3.5 – 3 – 4.5**
Prerequisite (1): HORT 1100, BIOS 1010 or MCC Biology Placement Exam
This course constitutes a general survey of the plant kingdom with emphasis on the life cycles, habitats, relationships and evolutionary aspects of the lower plants. This course includes both lecture and lab components.

BIOS 1420 Biology of the Seed Plants* **3.5 – 3 – 4.5**
Prerequisite (1): HORT 1100 or MCC Biology Placement Exam
This is a study of the structures and functions of seed plants, conifers and flowering plants. This course includes both lecture and lab components.

> **BIOS 1410 and BIOS 1420 are not sequential courses. These classes can be successfully taken in any order.*

BIOS 1500 Introduction to Bioprocessing **3.5 – 3 – 4.5**
Prerequisite (1): High school biology with a grade of B or better, BIOS 1010 or equivalent
An introduction to the biological applications relating to bioprocessing. Topics include career exploration, history and applications of DNA/RNA technology, fermentation, enzymes, growth requirements for microbes, sterile techniques, waste water treatment, bioseparation and laboratory safety. This course is supplemented with laboratory exercises, demonstrations and field trips that illustrate the basic techniques of bioprocessing.

BIOS 2050 Genetics **4.5 – 0 – 4.5**
Prerequisite (1): BIOS 1010 or equivalent
To understand many of the advances taking place in biology and medicine requires a good understanding of genetics. Both classical and modern genetics are discussed in this course.

BIOS 2150 Microbiology* **5 – 3 – 6**
Prerequisite (1): BIOS 1010
A study of the structure, physiology, ecology and human health implications of microorganisms is included. This course includes both lecture and lab components.

> **If the student's program includes a course in anatomy and physiology, completing that course prior to BIOS 2150 would be to his/her advantage.*

BIOS 2310 Human Anatomy and Physiology I* **5 – 3 – 6**
Prerequisite (1): BIOS 1010
Co-requisite (1): CHEM 1010, CHEM 1211 or CHEM 1212
An in-depth study of human anatomy and physiology is presented in this course by examining cell function, tissues and the skeletal, muscular and nervous systems. This course includes both lecture and lab components.

BIOS 2320 Human Anatomy and Physiology II* **5 – 3 – 6**
Prerequisite (2): BIOS 2310 and CHEM 1010, CHEM 1211 or CHEM 1212
As a continuation of BIOS 2310, this course studies the structure and function of the circulatory, respiratory, digestive, excretory, endocrine and reproductive systems. This course includes both lecture and lab components.

> **If the student's program requires both BIOS 2310 and BIOS 2320, the chemistry prerequisite must be met prior to taking BIOS 2320.*

BIOS 2410 Plant Pathology* **3.5 – 3 – 4.5**
Prerequisites for non-Horticulture Program students (2): Familiarity with gardening and ornamental plants and completion of a recent introductory biology course
Prerequisites for Horticulture students (4): HORT 1100, at least one plant identification course, BIOS 1410 and BIOS 1420
Plant disorders, including environmental, bacterial, viral and fungal, are studied with emphasis on the identification of symptoms, causes, prevention and control. This course includes both lecture and lab components.

BIOS 2510 Applied Entomology* **3.5 – 3 – 4.5**
Prerequisites for non-Horticulture Program students (2): Familiarity with gardening and ornamental plants and completion of a recent introductory biology course
Prerequisites for Horticulture students (2): HORT 1100 and at least one plant identification course
Insects and pests of horticulture crops are discussed with emphasis on damage, life cycle, prevention and control. This course includes both lecture and lab components.

> **Non-Horticulture Program students taking BIOS 2410 and BIOS 2510 should have a familiarity with gardening and ornamental plants as well as having taken a recent introductory biology course.*
>
> *BIOS 2410 and BIOS 2510 are not sequential courses. These classes can be taken successfully in any order*

BIOS 2900 Special Topics in Biology **Variable**
Prerequisite (1): Instructor approval
This course allows for instruction in special content areas not included in other biology courses.

BUSINESS MANAGEMENT (BSAD)

BSAD 1000 Introduction to Business **4.5 – 0 – 4.5**
A survey of the structure and functions of the American business system is provided together with an overview of business organization, finance, managerial control, production/distribution, personnel, the interdependence of business and government and consumer business relations.

BSAD 1004 Introduction to e-Commerce **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course introduces the concepts, vocabulary and procedures associated with e-commerce and the Internet. The student will gain an overview of all aspects of e-commerce. Topics include development of the Internet and e-commerce, options available for doing business on the Internet, features of web sites and the tools used to build an e-commerce web site, marketing issues, payment options, security issues and customer service. (Cross-listed as INFO 1004)

BSAD 1010 Principles of Marketing **4.5 – 0 – 4.5**
Prerequisite (1): BSAD 1000 or equivalent
This course features a survey of the distributive fields, their functions and interrelationships. The course covers pricing policies, promotional activities, marketing in special fields and market analysis.

BSAD 1100 Business Law I **4.5 – 0 – 4.5**
The course offers an introduction to ordinary legal aspects of business transactions involving such topics as legal rights and duties, law of contracts, law of sales and law of property. It gives a general understanding and development of basic legal logic in business situations through the use of principles, cases and information useful in determining the need for professional counsel.

BSAD 1110 Business Law II **4.5 – 0 – 4.5**
Prerequisite (1): BSAD 1100
This is a continuation of Business Law I. The course offers study in negotiable instruments, agency and employment, business organizations, suretyship, secured transactions and bankruptcy.

BSAD 1200 Principles of Selling* **4.5 – 0 – 4.5**
Fundamentals of selling from the determination of customer needs to the close of the sale are covered. The course treats such factors as customer problems, merchandising knowledge and personality traits of successful salespersons.

BSAD 1201 Advertising and Sales Promotion* **4.5 – 0 – 4.5**
This is an introductory course dealing with the theory, practice and techniques of advertising. The role of advertising and sales promotion in the economy is considered. The course includes a general survey of the kinds and purposes of media, the psychological implications of typical appeals and limited practice in promotional programming. The student coordinates advertising, display and publicity in the context of a realistic sales promotion program.

BSAD 1202 Direct Marketing Methods* 4.5 – 0 – 4.5
A practical presentation of direct marketing methods and techniques covering telemarketing, direct mail, television, newspapers and magazines is offered. Topics presented include creating and producing direct marketing messages, media analysis and selection and operational management. This course is a practical, hands-on experience for business managers/marketers and a skill developer for the direct marketing professional. Only offered in the Spring quarter.

**It is strongly recommended BSAD 1010 or equivalent be taken prior to BSAD 1200, BSAD 1201 and BSAD 1202.*

BSAD 1210 Retailing 4.5 – 0 – 4.5
Prerequisite (1): BSAD 1010 or equivalent
This course acquaints the student with the fundamentals of retail store organization and management including store location, layout, buying, pricing operation, advertising, display and analysis associated with merchandise handling. When appropriate, metropolitan area retailers are invited to discuss the actual application of various retailing activities (e.g. buying, advertising and inventory control).

BSAD 1250 Introduction to Not-for-Profit Management 4.5 – 0 – 4.5
This course is an overview of nonprofit organization and management emphasizing the role of the not-for-profit sector in community service and development. Topics will include finance and budgeting (accessing public and private sector grant monies), management and personnel, ethics, scope of services (education, health, arts and culture, youth, community, environmental and human services) and the interdependence of business, government and the nonprofit sector.

BSAD 1300 Introduction to Quality Management 4.5 – 0 – 4.5
This course explores the origin and philosophy of quality management and the considerations that go with adopting such a philosophy. This concept, that quality products and services best determine the success of an organization, is a blending of the old and the new, foreign and domestic. The student is introduced to the history of quality management and the pivotal individuals involved in the development of the philosophy. The course introduces the ramifications of adopting a quality management philosophy and how it impacts management and the individual worker.

BSAD 1600 Principles of Supervision 4.5 – 0 – 4.5
Emphasis is given to the first-line supervisor's needs for a working understanding of the functions of management, teamwork, cultural diversity and practical aspects of motivation. This course also emphasizes developing an ability to constructively self-evaluate with a view toward developing attitudes, habits and skills that lead to effective, and personally rewarding, supervisory skills.

BSAD 2100 Principles of Management 4.5 – 0 – 4.5
This is an introduction to the theory and practice of management of the organization. The various schools of management theory are discussed. Special attention is devoted to the process of planning, decision making, organizing, leading and controlling the organization.

BSAD 2300 Quality Management: Statistical Process Control 4.5 – 0 – 4.5
Foreign competition has had a severe impact on the U.S. economy and has created a need for business to improve the quality of goods and services and the productivity of the workforce in order to regain its competitive position. This course presents the management principles and statistical methods that have been adopted successfully by many foreign firms. Emphasis is placed on management's responsibility to make system changes to improve quality and productivity, to include obligations relative to customer satisfaction, to the design and development of products/services and to the use of statistical methods for management, control and improvement. The student selects and implements a project using the techniques of statistical process control and learns strategies for evaluation and continued improvement of the product or service.

BSAD 2400 Business Logistics 4.5 – 0 – 4.5
Business logistics is a study of the acquisition, storage, use, packaging, transportation and distribution of materials and products. Topics covered include management of materials and physical distribution; transportation choices, regulation and rates; traffic management; product storage, warehousing, handling and packaging; inventory management; acquisition and production scheduling; order entry and processing; logistics systems design and operation; and international logistics.

BSAD 240A Basics of Supply Chain Management 2 – 0 – 2
This course explores the basic concepts in managing the flow of materials in a supply chain. It includes a complete overview of material flow from internal and external suppliers to and from the organization. The course is offered in partnership with APICS (the Association for Operations Management).

BSAD 2410 Purchasing and Materials Management 4.5 – 0 – 4.5
This course acquaints the student with the theory and applications of purchasing and materials management concepts. The course content includes purchasing organization and administration, quality management, supplier relations, negotiations, legal considerations, logistics, international and governmental procurement and strategic incentives.

BSAD 2420 Production and Operations Management 4.5 – 0 – 4.5
This course is an overview of the fundamentals of production and operations management used in service and manufacturing organizations. The student is introduced to the application of effective production and operations management techniques; the measurement of productivity and customer service; the planning and management of materials, manpower and capacity; and the concepts of quality and project management.

BSAD 2600 Human Resources Management 4.5 – 0 – 4.5
A study of the principles and techniques of personnel management including an examination of managerial practices in the selection, development and motivation of employees is reviewed. Factors underlying employee participation in policy formulation; the effect of work environment; administration of wages, salaries and benefits; and the evaluation of personnel programs receive attention.

BSAD 2610 Labor/ Management Relations 4.5 – 0 – 4.5
A study of the history of the union movement and its present consequences for U.S. labor and management is completed. Topics covered include the collective bargaining process, typical grievance procedures, applicable laws and regulations, mediation and arbitration, union organizing processes and limitations and adversarial versus cooperative union/management relationships.

BSAD 2700 Introduction to International Business 4.5 – 0 – 4.5
This course presents a broad overview of the fundamentals of international business and trade and familiarizes the student with the basic terminology, key concepts and issues unique to the subject. The student studies the global economy including international trade, investments and the business environments. The management of multinational firms is studied in the context of the international financial systems, global market research and comparative advantage.

BSAD 2710 Import/Export Operations 4.5 – 0 – 4.5
This course introduces the student to the advantages and disadvantages of international trade. Topics covered include political and cultural considerations in advertising and packaging products for global distribution and shipping and transportation procedures to include regulation, rates, storage and traffic management considerations. The student receives hands-on experience in simulated global trade operations.

BSAD 2720 International Marketing Management 4.5 – 0 – 4.5
Prerequisite (1): BSAD 1010
Global marketing has become the norm rather than the exception for most businesses. The emergence of the networked economy and electronic business activities has allowed more firms to have a global presence. This course presents a global marketing vision through the eyes of the marketing manager. The student will demonstrate a global mindset and acquire knowledge of a broad cultural understanding on global strategic thinking and of the global marketing environment. Emphasis is given to analyzing, developing and designing global marketing strategies and programs. Reference is drawn on well-known companies in Europe, Asia and the Americas that explore global marketing issues.

BSAD 2900 Special Topics in Business Variable
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other business courses.

BSAD 2940 Business Plan Capstone 1.5 – 0 – 1.5
Prerequisite (1): Completion of 85+ quarter hours in the Business Management or Accounting associate degree/option
The capstone course is an independent study course where the student demonstrates competencies in the areas of management, finance, accounting and report writing by developing a draft and finalized business plan on a student/faculty agreed upon business concept. Part of the requirement of this course is a comprehensive exam covering accounting, management, marketing and general business topics. (Cross-listed as ACCT 2940)

BSAD 2941 e-Commerce Capstone* 3.5 –3 – 4.5
This course is intended to place the student in realistic situations within a simulated e-commerce environment. Available positions include management, networking, computer programming, web development and database operations. The student gains operational experience in selected areas of concentration, applies human relations skills, practices ethical decision-making techniques, demonstrates teamwork and gains experience in the interdependence of all functions in an operational/ developmental environment. (Cross-listed as INFO 2941)

**A student should have completed all general education, core and concentration requirements in the e-Commerce degree before enrolling in this course.*

BSAD 2981 Internship **Variable**
Prerequisite (1): Instructor approval
The student applies the principles, procedures and rules learned in Introduction to Business, Principles of Management and courses from a specific Business Management degree option. The work setting is a public, private or nonprofit organization appropriate to the degree option being pursued. The student records the tasks performed in a notebook, which is reviewed periodically by the work supervisor and faculty sponsor to assure that appropriate competencies are developed and/or reinforced. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

CHEMISTRY (CHEM)

CHEM 1010 College Chemistry☯ **5 – 3 – 6**
Co-requisite (1): MATH 1310 (must be taken at same time or completed earlier)
Prerequisites (2): SCIE 0900 or assessment testing and MATH 0921 or MATH 0960
The principles relevant to a basic understanding of chemistry are examined in this course. The topics include atomic structure, chemical bonding, stoichiometry, gas laws, solutions, acid/base chemistry and equilibria. This course includes both lecture and lab components.

CHEM 1120 Chemistry for the Health Sciences I* **2.5 – 1.5 – 3**
Co-requisite (1): MATH 1310 (must be taken at same time or completed earlier)
Prerequisite (1): CHEM 1010, CHEM 1211 or CHEM 1212
This course is designed to give students entering a health career fundamental knowledge of those areas of chemistry that relate to physiological principles. This course will cover topics that include solutions; acids, bases and buffers; nuclear chemistry; equilibrium and an introduction to organic chemistry. CHEM 1120 will be taught during the first part of the quarter to be followed immediately by CHEM 1130. Both CHEM 1120 and 1130 must be completed for transfer as a four-semester credit chemistry course for baccalaureate work. This course includes both lecture and lab components.

CHEM 1130 Chemistry for the Health Sciences II* **2 – 3 – 3**
Prerequisite (1): CHEM 1120, CHEM 1211, CHEM 1212 or assessment testing
As a continuation of CHEM 1120, this course will continue with a study of those areas of chemistry that relate to physiological principles. This course will parallel the chemistry of organic molecules to biochemical functions. The 3-D nature of carbon molecules will be introduced, and the relationship between shape and physiological activity will be explored. The course will also cover topics that parallel organic compounds with biochemical molecules pairing such groups as the oxygen containing organic molecules with carbohydrates, carboxylic acids with lipids and amines with amino acids and proteins. CHEM 1130 will begin during the second part of the quarter immediately following the completion of CHEM 1120. Both CHEM 1120 and CHEM 1130 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. This course includes both lecture and lab components.

**CHEM 1120 is a five-week course and CHEM 1130 is a six-week course. They are taught in a single quarter timeframe. It is necessary to complete both courses for any potential transfer credit.*

CHEM 1210 General Chemistry: Part I* **1.5 – 1.5 – 2**
Prerequisites (3): High school chemistry; SCIE 0900 or assessment testing; MATH 0921 or MATH 0960
Co-requisite (1): MATH 1310
Students who need a one-year college chemistry course but who feel they are lacking the basic skills needed to be successful in a faster-paced course should consider taking this course. Completion of both CHEM 1210 and CHEM 1211 would be equivalent to one semester of General Chemistry I. Topics included in this first portion will be measurement, naming compounds, writing chemical equations, atomic structure, the essentials of bonding and the periodic table. Students completing this course will be able to complete their general chemistry in one academic year.

CHEM 1211 General Chemistry: Part II* **3 – 3 – 4**
Prerequisites (2): CHEM 1210 and MATH 1310
Co-requisite (1): MATH 1420 for students advancing to CHEM 1220
This course is a continuation of CHEM 1210. Completion of both CHEM 1210 and CHEM 1211 would be equivalent to one semester of General Chemistry I. Topics in this second portion include modern bonding theories, VSEPR theory, stoichiometry, solution chemistry, thermochemistry and the chemistry of solids, liquids and gases.

CHEM 1212 General Chemistry I: Accelerated* **4.5 – 4.5 – 6**
Prerequisites (3): CHEM 1010 or strong high school chemistry course; SCIE 0900 or assessment testing; MATH 1310
Co-requisite (1): MATH 1420 for students advancing to CHEM 1220
This is an accelerated General Chemistry I course for students who have some knowledge of chemistry. Topics included will be naming, atomic structure, chemical reactions, essentials of bonding, periodic properties, VSEPR theory, modern bonding theories, stoichiometry, thermochemistry and the chemistry of solids, liquids and gases.

CHEM 1220 General Chemistry II* **4.5 – 4.5 – 6**
Prerequisites (2): CHEM 1211 or CHEM 1212; MATH 1420
The conclusion of the one-year college chemistry program covers such topics as solutions, equilibrium, acid-base reactions, thermodynamics, electrochemistry, kinetics, nuclear chemistry and the chemistry of various specific substances (e.g., metal, non-metals, coordination compounds, etc.).

**The level of difficulty and pace of General Chemistry is quite high. It is strongly recommended that students complete a prior high school or beginning college-level chemistry course before undertaking this course.*

General Chemistry I is now offered in two formats. The first is an accelerated format, and the second is a regular-pace format. The regular-pace format is divided into two sections, CHEM 1210 and CHEM 1211, that are covered over a two-quarter period. This course is designed for students who do not have a strong background in math and chemistry and allows additional time at the beginning of the course to perfect their skills. Both CHEM 1210 and CHEM 1211 must be successfully completed to transfer as a semester-length course.

The accelerated format, CHEM 1212, assumes that the student has some chemistry background and has sufficiently strong math skills to work at the accelerated pace. The equivalent to the entire first semester of General Chemistry I will be covered in this one-quarter offering.

The second semester of General Chemistry (CHEM 1220) will be offered in the accelerated format only. It is expected that students will have completed the necessary math prerequisite (MATH 1420) prior to enrolling in this course.

CHEM 1510 Chemistry for Bio-Industry I **2.5 – 1.5 – 3**
Prerequisite (1): CHEM 1010, CHEM 1211 or CHEM 1212
This course is designed to give students entering a biotech career fundamental knowledge of those areas of chemistry that relate to bio-industrial principles. This course will cover topics that include solids, liquids and solutions; acids, bases and buffers; rate; equilibrium and an introduction to organic chemistry. The course material will be presented in lecture form to introduce the topics/information and the concepts will be reinforced through laboratory experiments. CHEM 1510 will be taught during the first part of the quarter to be followed immediately by CHEM 1520. Both CHEM 1510 and CHEM 1520 must be completed for transfer as a four-semester credit chemistry course for baccalaureate work. This course includes both lecture and lab components.

CHEM 1520 Chemistry for Bio-Industry II **2 – 3 – 3**
Prerequisite (1): CHEM 1510
As a continuation of CHEM 1510, this course will continue with a study of those areas of chemistry that relate to bio-industrial principles. This course will parallel the chemistry of organic molecules to biochemical functions. The 3-D nature of carbon molecules will be introduced, and the relationship between shape and physiological activity will be explored. The course will also cover topics that parallel organic compounds with biochemical molecules pairing such groups as the oxygen containing organic molecules with carbohydrates, carboxylic acids with lipids and amines with amino acids and proteins. CHEM 1520 will begin during the second part of the quarter immediately following the completion of CHEM 1520. Both CHEM 1510 and CHEM 1520 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. This course includes both lecture and lab components.

CHEM 2310 Fundamentals of Organic Chemistry **5 – 3 – 6**
Prerequisite (1): CHEM 1010 or equivalent
This fundamentals course provides the student with an overview of important organic chemical concepts. Topics include bonding, 3-D structure, isomerism, the relationship between structure and reactivity of carbon compounds and reaction mechanisms. These concepts are utilized to describe hydrocarbons, alcohols, aldehydes, ketones and carboxylic acids. The relationships between these compounds and biochemicals are discussed. This course includes both lecture and lab components.

CHEM 232A, B and C Organic Chemistry I*
Organic Chemistry I is designed to provide a comprehensive study of the chemistry of carbon compounds. This course is designed for the student pursuing an academic transfer degree in chemistry, biology, chemical engineering and medical pre-professional students and includes both the lecture and laboratory components. The course will be taught as three courses, and all three courses must be completed to transfer as a semester-length course.

CHEM 232A Organic Chemistry IA **2 – 1.5 – 2.5**
Prerequisite (1): CHEM 1220 or an equivalent general chemistry course
Topics include the structure and properties of carbon compounds, the classification of organic molecules by functional groups and the structure, properties and reactions and stereochemistry of alkanes.

CHEM 232B Organic Chemistry IB **2 – 1.5 – 2.5**
Prerequisite (1): CHEM 232A
Topics include the structure, properties and reactions including mechanism and stereochemistry of alkenes and alkynes.

CHEM 232C Organic Chemistry IC **2 – 1.5 – 2.5**
Prerequisite (1): CHEM 232B
Topics include the structure, properties and reactions, including mechanism, of halogenated carbon compounds, alcohols and thiols.

CHEM 233A, B and C Organic Chemistry II*
Organic Chemistry II is a continuation of CHEM 232. This course is designed for the student pursuing an academic transfer degree in chemistry, biology, chemical engineering and medical pre-professional students and includes both the lecture and laboratory components. The course will be taught as three courses, and all three courses must be completed for transfer as a semester-length course.

CHEM 233A Organic Chemistry IIA 2 – 1.5 – 2.5
Prerequisite (1): CHEM 232C
Topics include spectroscopy, organometallics and the structure, properties and reactions, including mechanism, for ethers, sulfides and epoxides.

CHEM 233B Organic Chemistry IIB 2 – 1.5 – 2.5
Prerequisite (1): CHEM 233A
Topics include the structure, properties and reactions, including mechanism, of carbonyl compounds (aldehydes, ketones, carboxylic acids and their derivatives) and nitrogen containing organic compounds.

CHEM 233C Organic Chemistry IIC 2 – 1.5 – 2.5
Prerequisite (1): CHEM 233B
Topics include the structure, properties and reactions, including mechanism, of conjugated pi systems including aromatic compounds.

**Organic Chemistry I and II are each taught as a three course sequence. All three courses must be successfully completed to transfer as a semester-length course.*

CIVIL ENGINEERING TECHNOLOGY (SCET)

SCET 1000 Civil Engineering Fundamentals 4.5 – 0 – 4.5
This course introduces the student to a wide variety of topics related to the civil engineering field. This course includes historical and contemporary engineering applications. Various testing, evaluation and classification of methods and materials are investigated. The analysis and interpretation of topographic maps and aerial photographs are also covered.

SCET 1050 Building Construction 3 – 0 – 3
The student becomes familiar with the materials and types of construction used for the various parts of buildings in this class. Building code requirements; steel, timber and masonry construction; structures of the common form; lift-slab and tilt-up construction; and developments in the building construction field are covered.

SCET 1060 Physical and Structural Properties of Soils and Rocks 3 – 0 – 3
This course constitutes an introduction to geology. It includes a study of the basic rock and soil types, the hydrological cycle, ground water and related phenomena and interpretation of the effects of various geological processes upon the surface of the earth.

SCET 1070 Contracts and Specifications 3 – 0 – 3
The Law of Contracts and its application to engineering projects receives attention. Specification writing, additional problems in the general field of engineering law, responsibility to clients, the engineer as an expert witness and professional ethics are featured.

SCET 1080 Estimating Construction Costs 3 – 0 – 3
This course includes an interpretation of construction drawings and specifications. Material take-offs, estimating quantities, cost of materials and labor in residential and commercial building projects are calculated. Computer databases are used for pricing labor and materials.

SCET 1120 AutoCAD Essentials 9 – 0 – 9
This course introduces the student to computer-aided design basic 2-D drawing techniques using the AutoCAD™ software. Drawing terminology, text creation/editing, dimensioning, AutoCAD menus, file manipulations, plotting and geometric construction techniques are covered. Other AutoCAD commands include model space and layout, viewports, polylines, multilines and splines, annotation with text, use of attributes for data storage and extraction and xrefs.

SCET 1150 AutoCAD Civil 3-D 9 – 0 – 9
Prerequisite (1): SCET 1120 or instructor approval
This course covers nearly all the objects and commands necessary to start using AutoCAD Civil 3-D and focuses on tools designed specifically for civil engineers including utility, site and roadway plans; profile; and section sheets.

SCET 1200 Surveying Fundamentals 6.5 – 0 – 6.5
Prerequisite (1): MATH 1310
Fundamental concepts of surveying, definitions, errors, computations and field notes are studied. Theory and practice of measuring distance, measurement of difference in elevation, use and care of leveling instruments, leveling methods and field practice are included.

SCET 2010 Fluid Mechanics 4 – 0 – 4
Prerequisite (1): MATH 1310
Fluid properties, hydrostatics and fluid flow properties; flow in pipes and open channels; flow measurements; and basic theoretical and applied fluid mechanics are the emphasis.

SCET 2220 Transit and Traverse Surveying 6.5 – 0 – 6.5
Prerequisite (1): SCET 1200
This course is an introduction to land surveying transits and theodolites, surveys with transit and tape, survey traverse, determination of azimuths and bearings, coordinate geometry and surveying curve computations. Mathematics applications in daily surveying duties are covered.

SCET 2240 Mapping, Staking and GPS 6.5 – 0 – 6.5
Prerequisites (2): SCET 2220 and INFO 1001
Surveys for topographic mapping and route location, understanding design data and drawings and using complex design information to create field data for construction staking are studied. Students are introduced to Global Positioning System (GPS) basics, concepts and applications. Land division types and ethics in business and surveying are also covered.

SCET 2300 Structures I 4 – 0 – 4
Prerequisite (1): MATH 1310
The course centers on the basic principles of statics, free body diagrams, equilibrium, force systems and friction.

SCET 2310 Structures II 4 – 0 – 4
Prerequisite (1): SCET 2300
An introduction to the strength of materials, stress, deformation, engineering materials and their properties are included in this course.

SCET 2320 Structures III 4 – 0 – 4
Prerequisite (1): SCET 2310
This course continues the study of the strength of materials including elementary structural analysis (e.g., timber and steel structures), shear and moment diagrams, deflections, beam analysis and elementary design problems.

SCET 2981 Internship 0 – 15 – 3
Prerequisites (2): Completion of at least 30 credits in Civil Engineering courses and instructor approval
The student is expected to work in an area related to his/her training in civil engineering under the supervision of a qualified engineer. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

CONSTRUCTION TECHNOLOGY (CNST)

CNST 0050 Print Reading I Residential 3 – 0 – 3
This course is designed as a preparation for CNST 1010, Print Reading II Residential/Light Commercial. This course is also suggested for the new student with little or no knowledge of the construction industry. The student is provided with a basic understanding of symbols and abbreviations used on prints. Types of residential drawings covered include floor plans, elevation views, sectional views, detail views and plot plans. This course does not count towards a degree.

CNST 1000 Introduction to Building Construction 3.5 – 0 – 3.5
This course covers common construction materials, products and systems as well as construction efficiency and safety in the delivery, handling and installation of building materials. Information on building materials, products, systems and procedures are also presented.

CNST 1010 Print Reading II Residential/Light Commercial 3.5 – 0 – 3.5
Prerequisite (1): CNST 0050 or assessment
The student learns to read and interpret residential architectural plans including terms and definitions, architectural drawings, alphabet of lines, description of lines, floor plan symbols, electrical symbols, section symbols and mechanical symbols. Emphasis is placed on reading an architect's scale. Included is a set of specifications extracting specific information from a set of building specifications. Simple sketching procedures are included.

CNST 1015 Print Reading III Commercial 3.5 – 0 – 3.5
Prerequisite (1): CNST 1010
Print reading for commercial construction provides print reading experience in commercial construction including site work, mechanical and electrical systems and structural steel, reinforced concrete and finish construction. This course is designed to develop skills necessary to interpret plans and provides print-reading experience with elements commonly included on prints for large commercial structures.

CNST 1050 Introduction to Carpentry 3 – 1.5 – 3.5
This course covers the safe use of hand and power tools. Focus on proper set up of tools, manufacture of jigs and templates are practiced. The student takes part in a laboratory project involving all stationary and hand power tools, as well as carpentry hand tools. This course is a must for anyone who wants his/her tools to perform as designed.

CNST 1060 ALCOA Siding Installation 3 – 1.5 – 3.5
Designed by ALCOA Building Products, this course provides proper training and skills needed to work in the field as a siding installer. In addition, this course provides a foundation for the entrepreneur with skills and knowledge to form his/her own crew in the field of siding installation.

CNST 1070 EIFS and Stucco Finish 3 – 1.5 – 3.5
This course is designed to enable students to apply two different exterior finishing systems: stucco, a non-insulated cement plaster wall covering, and EIFS, an Exterior Insulated Finishing System. Both systems will be applied by students in a practical laboratory application.

CNST 1110 Construction Safety (10 Hour) 1 – 0 – 1
Construction Safety provides the student with training outlined by the Occupational Safety and Health Administration (OSHA). This course supplies the student with the minimum recommended requirements for working in the construction field.

CNST 1220 Demolition and Remodeling 6 – 1.5 – 6.5
Prerequisites (2): CNST 1010 and CNST 1050 or instructor approval
Remodeling, renovation and demolition can be a very demanding profession. This course prepares the student for many of the unforeseen surprises that may occur in the field. Actual remodeling projects such as floor, wall, ceiling and roof alterations take place. Existing loads are evaluated and new structural loads calculated for the additions using the latest IRC building code.

CNST 1250 Interior Finish 6 – 1.5 – 6.5
Prerequisites (2): CNST 1010 and CNST 1050 or instructor approval
This course includes terms and definitions used in the construction field pertaining to interior finish. Theory and practical application of various types of wall coverings, wall finish, ceiling covering, ceiling finish, interior door hanging and various applications of interior trim are covered. Emphasis is placed on estimation of labor and materials in all areas.

CNST 1255 Commercial Framing 6 – 1.5 – 6.5
Prerequisites (2): CNST 1015 and CNST 1050
This course is designed to give students a hands-on approach to metal stud framing. This course will cover proper layout procedures and wall types from interior, exterior, furred, structural and fire-rated walls. Methods of building headers, columns, soffits and ceilings will also be covered in this course along with proper construction terms, definitions, specifications and codes.

CNST 1260 Introduction to Cabinet Making 3 – 0 – 3
Prerequisite (1): CNST 1010 or instructor approval
This course covers all aspects of cabinet making beginning with cabinet design and ending with industrial production/ employment in cabinet making. Other topics include materials used in cabinets, cabinet hardware, cabinet-making tools and built-in cabinets. In addition, there is time spent on making sketches and working drawings of different cabinet styles.

CNST 1261 Basic Cabinet Construction 6 – 1.5 – 6.5
Prerequisites (2): CNST 1050 and CNST 1260
This course covers fabricating basic cabinets, cabinet materials, tool usage, safety, joinery and material costs. Methods of assembling and installation are stressed.

CNST 1270 General Painting, Staining and Cabinet Finishing 2.5 – 1.5 – 3
Professional painting and finishing techniques will be demonstrated and practiced in this course. Cabinets completed in CNST 1261 may be finished. Topics include surface preparation, application of finishing materials and surface prep for topcoating. The student will gain practical experience in the lab using the latest materials and techniques in the construction industry.

CNST 1350 Floor, Wall and Ceiling Framing 6 – 1.5 – 6.5
Prerequisites (2): CNST 1010 or instructor approval
This course deals with floor framing, wall parts, wall construction and installation of ceiling joists. A full-scale house is constructed in the indoor laboratory.

CNST 1355 Commercial Finish 6 – 1.5 – 6.5
Prerequisite (1): CNST 1255
This course is designed to cover the latest and most innovative building materials, techniques and codes related to commercial finish. In this class, the student will learn how to install and finish materials including drywall, fireproofing, acoustical ceilings, doors, windows and hardware. Students will practice applying these materials in a lab setting to develop the skills and knowledge required in the commercial construction field.

CNST 1370 Exterior Finish 6 – 1.5 – 6.5
Prerequisites (2): CNST 1010 and CNST 1050 or instructor approval
This course includes terms and definitions used in the construction field pertaining to exterior finish. Theory and practical application of various types of wall covering, roof covering, exterior doors, windows and trim are covered. Emphasis is placed on estimation of labor and materials in all areas. Exterior siding, roofing, windows, doors and roofing materials are installed on a house in the indoor laboratory.

CNST 1400 Introduction to Masonry 6 – 1.5 – 6.5
This course is basic to the masonry area, and emphasis is placed on brick and block construction. The student mixes mortar and uses the trowel, spreads mortar, cuts brick and concrete blocks, levels and plumbs laid up units. Dry bonding techniques and various brick/block patterns are emphasized.

CNST 1410 Advanced Masonry Construction 6 – 1.5 – 6.5
Prerequisite (1): CNST 1400 or Instructor approval
This course provides the student with skill and knowledge in brick and stone veneering. In addition, layout and erection of pipe chases, fireplaces, arch work and columns are performed in practical applications.

CNST 1500 Introduction to Concrete 6 – 1.5 – 6.5
This course includes preplanning requirements, structural loads, frost line variations, carrying capacities of soils, building loads and permits. Various structural stress and load testing of laboratory projects will be conducted by the student. Hands-on lab work includes forming, placing and curing concrete pours. Different concrete finishes (float, trowel, broom, stamped, colored and exposed aggregate) are practiced. Estimating costs are also covered.

CNST 1510 Concrete and Wall Forms 6 – 1.5 – 6.5
This course includes definitions, concrete forms for footings, piers, columns, foundation walls and various foundation wall openings. Fluid pressure checks, rate of pour and monitoring of the pour are studied. It also includes types of wall forms, advantages of gang and panel forms, estimating materials and number of forms, methods of bracing forms and monitoring form stability during pouring operation. The student constructs a foundation wall form with pilaster door and window openings.

CNST 2050 Builders Level, Transit and Building Layout 3 – 1.5 – 3.5
This course covers common building layout procedures. Builders levels, Theodolites and EDMS are used in practical applications to duplicate actual procedures used in the construction field. The student learns to read and shoot elevations using the latest equipment available including lasers. Understanding surveyor's terms and markings is stressed. The student also gains practical experience laying out and staking building sites.

CNST 2100 Construction Safety 4.5 – 0 – 4.5
Construction Safety provides the student with training outlined by the Occupational Safety and Health Administration (OSHA). Many contractors require this course for anyone that is or will be working in a supervisory position.

CNST 2130 Construction Estimating 3.5 – 1.5 – 4
Prerequisite (1): CNST 1350, CNST 2360 or instructor approval
Construction Estimating supplies the student with knowledge and skills needed in the estimation of construction projects. The course includes quantity take offs and the actual estimation of materials and labor encountered in the field of construction today. Take offs will be organized using Excel spreadsheets designed by the student.

CNST 2140 Jobsite Management 4.5 – 0 – 4.5
Prerequisites (2): CNST 1000 and CNST 1010 or instructor approval
This course concentrates on the procedures and methods used by the contractor during the construction and post-construction phases of a project. Construction today involves much more than the physical erection of a project; it is essential for the contractor to systematically plan, organize, manage, control and document jobsite activities.

CNST 2150 Construction Law 3.5 – 0 – 3.5
This class is intended to teach students the legal rights, duties and responsibilities of the contracting parties involved in all aspects of the construction industry. The class will focus on contract law as the foundation of construction relationships and include various duties implied by law as well. The students will apply legal concepts to practical situations and learn to use acquired knowledge and skills to benefit owners, design professionals, contractors, sub-contractors and suppliers. Various construction industry professionals will contribute practical experience and knowledge in areas of law, insurance, bonding, government procurement, design, contracting, subcontracting and supplying construction materials.

CNST 2360 Roof Framing 6 – 1.5 – 6.5
Prerequisites (2): CNST 1010 and CNST 1050 or instructor approval
This course covers the principles, calculations and cutting of all components of gable, hip and valley rafters. An actual roof is framed on a house in the indoor laboratory.

CNST 2380 Stair Construction 3 – 1.5 – 3.5
Prerequisite (1): CNST 1050 or instructor approval
This course deals with the construction of rough and finished stairs. Definitions dealing with types of various stairs, parts of stairs, rules for rise and run and calculations of various rises and runs for given dimensions are studied. Estimating of materials and actual layout assembly of rough stairs and finished stairs are attempted.

CNST 2900 Special Topics in CNST Variable
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Construction Technology Program.

CNST 2981 Internship* Variable
Prerequisites (4): GPA of 2.5, Specialist Diploma or equivalent in Framing, Concrete, Masonry Management, Cabinetry or Commercial Construction or instructor approval
This internship gives the student the opportunity to develop skills in the field and exposes the student to craftspeople already established in the field. Application for an internship must be made through the program full-time faculty. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

**Students with four or more years experience in the construction field may waive the internship requirement upon instructor approval. Contact a full-time instructor for more information. Credits will be made up in other ways.*

CRIMINAL JUSTICE (CRIM)

CRIM 1010 Introduction to Criminal Justice 4.5 – 0 – 4.5
This course is an overview of the history, development and philosophies of crime control within a democratic society. It examines the criminal justice system with emphasis on the police, the prosecution and the defense, the courts and the correctional agencies.

CRIM 1020 Introduction to Corrections **4.5 – 0 – 4.5**
This course outlines corrections as a systematic process showing the evolving changes within institutional and community-based corrections. Topics include the history of corrections, the influence of social thought and philosophy on the development of corrections, the rights of the incarcerated inmate and the duties of the correctional officer.

CRIM 1030 Courts and the Judicial Process **4.5 – 0 – 4.5**
This course examines legal aspects of investigation and arrest procedures as well as rules governing the admissibility of evidence in court. It focuses primarily on police and correctional due process, application of the law and civil liability concerns. Topics include search and seizure, arrest and interrogation, revocation, probation and parole, probable cause and other timely issues.

CRIM 1140 Reporting Techniques for Criminal Justice **4.5 – 0 – 4.5**
Prerequisite (1): English Level I
The student learns to observe and document the behavior of crime victims, witnesses and suspects. The student also learns to accurately describe and record conditions and activities of crime scenes for courtroom presentations. In accordance with the legal guidelines of confidentiality, each student maintains a log of classroom and field experiences.

CRIM 2000 Criminal Law **4.5 – 0 – 4.5**
This course outlines the purpose and function of criminal law. Topics include the rights and duties of citizens and police in relation to local, state and federal law (i.e., arrest, search and seizure, confessions) and the development, application and enforcement of laws, constitutional issues and sentencing.

CRIM 2010 Introduction to Probation and Parole **4.5 – 0 – 4.5**
This course surveys the approach to corrections—types of correctional institutions, residents, programs, management issues and special problems associated with corrections and correctional institutions. The history, philosophy of adult and juvenile probation and parole in the United States will be covered.

CRIM 2020 Legal Issues in Corrections **4.5 – 0 – 4.5**
An introduction to constitutional issues relating to corrections. Study is made of court processes with particular emphasis on major cases affecting corrections, including probation and parole.

CRIM 2030 Police and Society **4.5 – 0 – 4.5**
Prerequisite (1): CRIM 1010
This course examines the role of the police in relationship to law enforcement and American society. Topics include the role and function of police, the nature of police organizations and police work and the patterns of police-community relations.

CRIM 2050 Principles of Interview and Interrogation **4.5 – 0 – 4.5**
Prerequisite (1): CRIM 1010
Interviews of witnesses, informants and complainants are examined as a communicative relationship. Demonstration, study and practice of acceptable techniques and procedures, in accordance with due process, are included.

CRIM 2120 Community-Based Corrections **4.5 – 0 – 4.5**
This course outlines a number of community-based corrections programs such as probation, parole, electronic monitoring and fines designed to meet the level of risk and needs of the offender. The course will cover the balanced approach that reflects a strong emphasis on practical and legal matters. Also discussed will be the historical, philosophical, social and legal context of community-based corrections.

CRIM 2150 Contemporary Issues in Criminal Justice **4.5 – 0 – 4.5**
Prerequisites (1): CRIM 1010
This course examines the relationship between law enforcement agencies and such complex issues as, but not limited to, domestic violence, child abuse, elder abuse, gangs and drugs. This course includes service learning, which integrates civic engagement as a course component.

CRIM 2190 Police Field Services **4.5 – 0 – 4.5**
Prerequisite (1): CRIM 1010
This is an analysis of the duties, extent of authority and responsibilities of the uniform patrol officer. Rationales for the patrol philosophy and practices are outlined, and accepted field techniques and their practical application are presented.

CRIM 2220 Correctional Client **4.5 – 0 – 4.5**
This course will cover a wide variety of public safety and treatment issues related to a variety of special correctional offender typologies. The course will draw from various fields of criminal justice, psychology and counseling and will discuss in detail 12 unique offender types and will place a strong emphasis on assessment, diagnosis and outcomes.

CRIM 2260 Criminal Investigation **4.5 – 0 – 4.5**
This course introduces criminal investigation procedures and reviews historical development and investigative processes related to law enforcement functions. Topics include proper collection, organization and preservation of evidence using basic investigative tools, examination of primary sources of information, analysis of the importance of writing skills and review of the constitutional (legal) limitations of the investigation.

CRIM 2300 Community Relations **4.5 – 0 – 4.5**
Prerequisite (1): CRIM 1010
The traditional and current problems that inhibit understanding among all segments of the criminal justice system and the public are examined. Methods of creating understanding and confidence by using means of communication are explored.

CRIM 2310 Rules of Evidence **4.5 – 0 – 4.5**
This course emphasizes the concept of evidence and rules governing its admissibility. Theoretical and pragmatic considerations of constitutional requirements affecting evidence and procedure are also covered.

CRIM 2320 Correctional Facility **4.5 – 0 – 4.5**
This course will discuss various case studies and research in an effort to present balanced and comprehensive coverage of prisons and prisoners. The course will examine the many purposes of prisons, punishment deterrence, rehabilitation and incapacitation, as well as many controversial issues regarding prisons.

CRIM 2330 Introduction to Forensic Crime Scene Investigation **4.5 – 0 – 4.5**
This course provides an overview of the basic concepts of forensic crime scene investigations and will review the basic principles used by crime scene investigators. Topics include protecting the crime scene as a first responder, processing and establishing evidence and understanding personnel disciplines that aid in the investigation to include special physical evidence handling.

CRIM 2400 Introduction to Homeland Security **4.5 – 0 – 4.5**
This course focuses on the impact of the war on terrorism upon individuals, society and the government. It examines how the war on terrorism affected first responders, how it transformed local and state governmental planning and how it defined a new relationship between state and federal government. The course will explore changes in the American prospective on constitutional rights, the capacity of the government and the criminal justice system to respond to international acts of terrorism and how to keep America safe.

CRIM 2410 Homeland Security Transportation **4.5 – 0 – 4.5**
This course covers the safeguarding of transportation by rail, air and sea against terrorist attacks. Students will analyze measures implemented to reduce the likelihood of threats to our nation's transportation network. This course will also cover courses of action taken in order to mitigate the impact of such an attack should it occur.

CRIM 2420 International Crime and Terrorism **4.5 – 0 – 4.5**
This course is an interdisciplinary course examining patterns of behavioral incidence and geography of terrorist crimes, political criteria underlying the identification of terrorists and terrorist activities and causal theories from political, economic and cultural perspectives. An international approach is taken to the study of diplomacy, criminal justice, military responsiveness and preventive policies.

CRIM 2430 Emergency Response to Terrorism **4.5 – 0 – 4.5**
This course covers the strategic planning, incident management and intelligence techniques needed to provide the necessary foundation for anti-terrorism preparedness. Topics covered include infrastructure protection, the National Incident Management System, threat and vulnerability assessments, counter-intelligence measures, terrorism prevention and deterrence operations. Students will learn how best to lead, communicate and coordinate in response/recovery efforts against terrorism.

CRIM 2440 Introduction to Bioterrorism **4.5 – 0 – 4.5**
This course will examine the proliferation of weapons of mass destruction (WMD)—chemical, biological, radiological, nuclear and explosive (CBRNE) weapons that could cause massive casualties if used for terrorist attacks. Students will study the possible vulnerability of the U.S. populace to such weapons and will also explore strategies of how to prevent, limit, defend and/or deter the use of weapons of mass destruction by terrorist. The course will also discuss the past, present and future national and international responses to, and defenses against, the threat of WMD terrorism.

CRIM 2450 Global Terrorism **4.5 – 0 – 4.5**
This course is designed to help students understand terrorism and its international impact. This course will also look at the regions and nations in the investigation of terrorism, its many different forms and factions and their close interrelationships around the world.

CRIM 2500 Introduction to Private Security **4.5 – 0 – 4.5**
This course is an overview of the history, development and philosophies of private security within a complex society. We examine the rich history, need for and diversity of security systems and techniques with an emphasis on the challenges facing the nation and the need to protect our employees, workers, manufacturing and business infrastructure.

CRIM 2510 Private Security Law **4.5 – 0 – 4.5**
Prerequisite (1): CRIM 2500
This course outlines the basic concepts and principles of criminal and civil law as they pertain to private security. The differences and similarities with law enforcement such as powers of arrest, use of force, search and seizure and protection of private versus public property will be examined.

CRIM 2520 Loss Prevention 4.5 – 0 – 4.5
This course introduces the basic principles and concepts of modern loss prevention planning and techniques. Large-scale considerations such as design and physical layout of areas in need of protection as well as practices utilized by individual loss prevention personnel will be explored.

CRIM 2530 Commercial Security 4.5 – 0 – 4.5
This course provides an overview of protective services in a commercial environment where contemporary security management principles are applied. Overviews include managing people and resources, security operations, emergency and risk management and various security programs.

CRIM 2540 Fire/Alarm Security 4.5 – 0 – 4.5
The course provides an overview of physical security systems that offer practical user-friendly principles for various levels of protection within an organization. Topics include alarm monitoring, electronic access, video surveillance systems and CPTED (Crime Prevention Through Environmental Design) concepts that provide a concentric layered approach to protection.

CRIM 2550 Principles of Security Safety 4.5 – 0 – 4.5
This course introduces the basic principles, practices and concepts of risk management and occupational health and safety. It also offers a study of the fundamental functions and responsibilities of security personnel as it relates to workplace safety efforts, as well as the role of outside entities and agencies such as OSHA (Occupational Safety and Health Administration).

CRIM 2900 Special Topics in Criminal Justice Variable
This course permits instruction in special content areas that are not included in other Criminal Justice courses.

CRIM 2960 Internship 0 – 22.5 – 4.5
Prerequisites (3): Completion of at least 30 quarter hours within the program, a 2.5 GPA and instructor approval
The internship is a legal agreement between the College and public or private criminal justice agencies to provide hands-on training for the student. Written goals and objectives as well as evaluation criteria are agreed upon and confirmed in writing by the student, the jobsite supervisor, a faculty monitor and the academic dean. In lieu of using an already-established internship site, the student is encouraged to develop his/her own provided that such site satisfies the requirements of the internship program. Should the student elect to use his/her own job as an intern site, he/she must perform and be evaluated at positions to which he/she is not regularly assigned. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

CULINARY, HOSPITALITY, RESEARCH AND MANAGEMENT (CHRM)

Critical Advising Note: Students entering Culinary Arts Programs that have assessed at college-level in all areas and/or completed any recommended developmental courses should register for CHRM 1000, CHRM 1020, CHRM 1030 and MATH 1220 in his/her first quarter of study.

CHRM 0950 Culinary Math 2 – 0 – 2
This course will cover all of the basics of culinary math. Topics will include cost and profit formulas, recipe conversion and baking formulas, as well as basic math principles. Students that are uncomfortable with math are recommended to take this course in their first quarter of enrollment.

CHRM 1000 CHRM Orientation* 2 – 0 – 2
This course is an introduction to the Culinary, Hospitality, Research and Management Program (CHRM). Topics included are the professional kitchen, an overview of the career opportunities available in the industry and portfolio development. This course should be taken during the first quarter of enrollment.

**CHRM 1000,1999, 2000 and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management Program.*

CHRM 1001 Hospitality Orientation 2 – 0 – 2
This is an orientation to the world of hospitality careers and the program at the Institute for the Culinary Arts.

CHRM 1020 Sanitation 1.5 – 1.5 – 2
This course includes the study of safe food handling, identification of food-borne illness and establishment of a food safety system. The study of the flow of food through the operation, as well as safe storage, sanitary facilities and equipment are included. Other topics include establishment of an integrated pest management system, accident prevention and crisis handling. There will be an extensive discussion of sanitary regulations, agencies and employee sanitation training. Upon successful completion of the Serv-Safe exam, students will receive the National Restaurant Association's certificate.

CHRM 1030 Culinary Foundations*☯ 2 – 7.5 – 4.5
Prerequisites (2): CHRM 1020 or current ServSafe certification and CHRM 1000; these courses can also be taken concurrently with CHRM 1030
The student learns concepts of sanitation and safety as it relates to the foodservice industry. Areas addressed include tools, equipment, knife skills, food and plate presentation, food evaluation, basic cooking principles to include moist and dry heat methods, seasonings, flavorings and aromatics, fats, foams, gels, emulsions, dairy products, eggs and palate development.

> **Approved uniform, supplies and text are required by the first day of CHRM 1030 Culinary Foundations.*

CHRM 1050 Basics of Quantity Production 0 – 4.5 – 1.5
Co-requisite (1): CHRM 1020 or current ServSafe certification
This course prepares the student to inspect, appraise and participate in food production and planning for quantity service. Hands-on experiences include use and care of large equipment, dish room management and quantity preparation of food.

CHRM 1060 Spanish for Culinary Professionals 3 – 0 – 3
In this course, the student will study the Spanish language as it relates to the foodservice profession. Students will demonstrate skill with vocabulary associated with the culinary arts, beginning grammatical concepts and conversational elements of the Spanish language along with an understanding of the Hispanic culture.

CHRM 1110 Vegetable Starch Protein Cookery 2 – 6 – 4
Prerequisite (1): CHRM 1030
Students study and apply cooking methods of scratch cookery through small batch assignments. Areas of study include rice and grains; potato products; wheat-based products to include pastas, dumplings, beans and soy products; fruits; vegetables; salads; center-of-the-plate items and sandwiches. The student practices elementary presentation and garnishing.

CHRM 1120 Soup and Sauce Cookery 2 – 6 – 4
Prerequisite (1): CHRM 1030
Students study and apply cooking methods of scratch cookery through small batch assignments. Areas of study include stocks, thickeners, roux based sauces to include the four mother sauces, hot and cold butter sauces, emulsion sauces, salsas, sambas vinaigrettes and reductions as well as soups to include cream, clear and potage soups.

CHRM 1130 Protein Fabrication 1 – 6 – 3
Prerequisite (1): CHRM 1030
Study focuses on the identification and fabrication of protein items to include poultry, beef, pork, lamb, shellfish, finfish, eggs and meat alternatives. Students will be introduced to the concepts of protein cookery.

CHRM 1140 A la Carte Cookery 0 – 9 – 3
Prerequisite (1): CHRM 1030
Study focuses on the preparation of food items for service in a guest-centered a la carte environment. Students should also gain proficiency in the areas of kitchen sense, mise en place and hustle. An introduction to the concepts of food presentation is also included.

CHRM 1210 Baking Basics 2 – 6 – 4
Prerequisite (1): CHRM 1030
Students learn to apply fundamental baking skills in preparing yeast breads, quick breads, cookies, pies, pastries, cakes, custards, creams and sauces.

CHRM 1220 Pastries 2 – 6 – 4
Prerequisite (1): CHRM 1210
This course provides an in-depth study of baking emphasizing American and European pastries. Topics include knowledge of different fancy cookies, petit fours, puff pastries, pate a choux, meringues, assorted pastes and tarts, icing fillings and glazes.

CHRM 1250 Artisan Bread 2 – 6 – 4
Prerequisite (1): CHRM 1020 or current ServSafe certification; CHRM 1020 can be taking concurrently
This course is an in-depth study of Artisan bread baking. Old-world techniques are applied with an emphasis on levians, poolish and sponge bread methods.

CHRM 1260 Cakes 2 – 6 – 4
Prerequisite (1): CHRM 1210
This course provides an in-depth study of cake formula and assembly techniques. Topics include knowledge of different cake making methods, ingredients for icings, fillings, coatings, glazes and production of finished cakes. Attention is given to production of layered and component cakes using an assortment of creams including crème patisserie, Bavarians and mousse.

CHEF'S APPRENTICESHIP – Second Year
The practica are special cooperative educational experiences with the College and approved chefs. The student works a minimum of 150 hours per quarter and maintains a logbook of hours, experiences and recipes.

CHRM 1991 Apprenticeship Practicum I **0 – 15 – 3**
Prerequisite (1): CHRM 1999

CHRM 1992 Apprenticeship Practicum II **0 – 15 – 3**
Prerequisite (1): CHRM 1991

CHRM 1993 Apprenticeship Practicum III **0 – 15 – 3**
Prerequisite (1): CHRM 1992

CHRM 1994 Apprenticeship Practicum IV **0 – 15 – 3**
Prerequisite (1): CHRM 1993

CHRM 1999 Skills Demonstration* **0.5 – 4.5 – 2**
Prerequisites for Culinary Arts, Chef's Apprenticeship, Culinary Management and Culinology degrees (6): CHRM 1030, CHRM 1110, CHRM 1120, CHRM 1130, CHRM 1140 and CHRM 1210
Prerequisites for Bakery and Pastry option (5): CHRM 1030, CHRM 1110, CHRM 1220, CHRM 1250 and CHRM 1260
Students will present for evaluation the skills that they have acquired in their first year of study. This class will require the students to display a solid understanding of fundamental cooking skills and deliver a high quality final product. This course should be taken during the last quarter of enrollment before starting 2000-level classes.

CHRM 2000 Stagaire*^ **2 – 0 – 2**
Prerequisites (1): CHRM 1999
Students learn the many facets of the culinary and hospitality world through participation in myriad events and experiences. The creation of an individual educational development plan, to be completed over several quarters, guides the student's progress against self-stylized goals. This course should be taken during the first quarter of enrollment in 2000-level courses.

^CHRM 2000 should be taken in the quarter following completion of CHRM 1999.

CHRM 2110 Quantity Production **0 – 13.5 – 4.5**
Prerequisite (1): CHRM 1999
The student learns to prepare, merchandise and service large quantities of food. Production of entrees, soups, sauces, salads, sandwiches and convenience bakeshop items is emphasized.

CHRM 2120 Garde Manger Buffets **1 – 10.5 – 4.5**
Prerequisite (1): CHRM 1999
The student studies traditional upscale pantry preparation. Students practice techniques for artistic displays of hors d'ouevres, canapés, pates, terrines and charcuterie. The student gains practical experience preparing and serving theme buffets for guests.

CHRM 2130 Fine Dining **0 – 13.5 – 4.5**
Prerequisite (1): CHRM 1999
In this course, the student learns a la carte and fine dining principles. Projects include menu design, research and development of dishes, plate presentation and line cooking skills for fine dining as well as time budgeting and management. Students will work in stations to include salads, broiler, sauté, expeditor and prep. Students plan and prepare up-scale theme menus.

CHRM 2140 International Cuisine **1 – 6 – 3**
Prerequisite (1): CHRM 1999
Students study international cuisine focusing on indigenous foods, cultural and religious influences and historical events. A technical and scientific approach to flavor profiles is used. The student will build a professional palate through sensory experience of new ingredients and flavor combinations and by utilizing cooking methods practiced by each ethnic group visited.

CHRM 2230 Baking Production **0 – 13.5 – 4.5**
Prerequisite (1): CHRM 1999
This class gives practical experience in preparation of retail bakery products to include breads, rolls, breakfast pastries, cookies, pies, tarts and cakes. Students will learn to meet production demands based on needs and customer expectation and satisfaction. Theory learned in other courses is tied into these experiences in a practical way so that students develop and increase their baking techniques and kitchen sense.

CHRM 2250 International Breads **1 – 6 – 3**
Prerequisite (1): CHRM 1210
The student studies and prepares breads from around the world. They will learn how indigenous products, cultural preferences and available fuel sources influenced the development of unique regional and national styles of bread making.

CHRM 2270 Chocolate, Sugar and Decorations **1 – 6 – 3**
Prerequisite (1): CHRM 1999
This course covers chocolate and sugar ingredient identification and application. Confectionary skills covered include icings; fondant; piping; butter cream and royal icing decoration; poured, pulled and blown sugar; chocolate work and sculpture; pastillage; nougatine and assorted sugar and chocolate decorative pieces.

**CHRM 1000,1999, 2000 and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management Program.*

CHRM 2280 Plated Desserts 0 – 13.5 – 4.5
Prerequisite (1): CHRM 2230
The student will apply baking and pastry skills from throughout the curriculum in order to prepare and merchandise restaurant-style desserts. This course includes dessert menu planning, plating, garnish and component style desserts.

CHRM 2350 Nutrition 4.5 – 0 – 4.5
The student learns concepts of healthful eating and its application in menu writing and recipe modification.

CHRM 2360 Physiology of Flavor 2 – 7.5 – 4.5
This course covers tastes and flavors (sweet, salty, bitter, sour and umami). Students explore culinary herbs and spices, salts, peppers, oils, vinegars, essences, fragrances, oleoresins, concentrates, freeze dried fruit and vegetable products and other flavor carriers used in cooking and culinary research and development. Students study aspects of history, medicinal benefits, growing, marketing, purchasing, distributing and culinary applications and practices. This course includes a hands-on lab application of techniques learned.

CHRM 2370 Food Science 4.5 – 0 – 4.5
Prerequisites (2): CHEM 1010 (or higher) or Research Chef's Association membership and CHRM 1999
This course is an overview of major food components (carbohydrates, proteins, fats, vitamins and minerals) and the bases for food preservation including processing, food legislation, food safety and current food issues. The structure-function relationship of water, proteins, lipids, carbohydrates, minerals and natural food products in food systems will be covered also. Students will be able to relate fundamental chemical, physical and biological principles to the preparation of food upon completion of this course.

CHRM 2380 Sensory Science 4.5 – 0 – 4.5
Prerequisite (1): CHRM 2370
This course introduces the student to sensory science and evaluation. Topics covered include the techniques and theory of food sensory measurement and perception of food. Statistical methods for interpreting results are also covered.

CHRM 2390 Research and Development of Food Products 2.5 – 6 – 4.5
Prerequisite (1): CHRM 2380
This course examines the process of research and development of food products. Students identify the importance and challenges of food product development. The creation of a new food product in a real-world research and development facility is covered as a laboratory experience.

CHRM 2450 Legal Basics of CHRM 3 – 0 – 3
The student examines basic laws, regulations, codes and practices affecting operations.

CHRM 2460 Cost Management* 4.5 – 0 – 4.5
Practices for controlling portions, inventories and costs are explored as they affect business operations.

CHRM 2465 Foodservice Financial Basics* 4.5 – 0 – 4.5
This course includes systems used to report revenue, expenses and profits, as well as the overall financial health of a food-related business.

CHRM 2470 Hospitality Supervision 4.5 – 0 – 4.5
Approaches for effective culinary or hospitality supervision are covered in this course. Methods of recruiting, selecting, training and evaluating personnel are covered. Team building and conflict management concepts are examined.

CHRM 2475 Leadership Principles 4.5 – 0 – 4.5
Leadership and decision-making principles as applied to a variety of food operations is the focus of this course. Skills in communication, empowerment and planning are developed.

CHRM 2480 Purchasing* 4 – 1.5 – 4.5
Purchasing methods and specifications in a variety of food operations are covered in this course. The student writes purchasing specifications for a variety of foods using general purchasing methods, requirements, procedures and ethics.

**For CHRM 2460, CHRM 2465 and CHRM 2480, math skills at the MATH 1220 level are recommended to be successful in the course.*

CHRM 2550 Table Service 0 – 13.5 – 4.5
Prerequisite (1): CHRM 1999 or Hospitality and Restaurant Leadership degree-seeking student
The student reinforces and expands knowledge of fine dining to include executing the order of service, wine and food affinities and merchandising the menu. The Federation of Dining Room Professional's Dining Room Associate Certification may be awarded upon successful completion of this course. The student may be awarded the National Restaurant Association's ServSafe Alcohol Certificate.

CHRM 2560 Beverage Management 3 – 0 – 3
In this course, the student will study types of beverages—both alcoholic and non-alcoholic—, purchasing procedures, beverage program development and legal aspects of the beverage industry.

CHRM 2610 Event Planning 4.5 – 0 – 4.5
This course will cover the basics of event planning as it applies to special events in convention centers, lodging, catering and country clubs.

CHRM 2620 Tourism and Hospitality 3 – 0 – 3
This course covers travel promotion, suppliers, the environment of the industry, service, entertainment, accommodations and the future of tourism.

CHRM 2630 Lodging and Hospitality 3 – 0 – 3
This course covers the foundations of lodging management, lodging structures, front office, human resources, food and beverage, housekeeping, maintenance and accounting.

CHRM 2900 Special Topics in CHRM Variable
The student works with the faculty in designing, implementing and evaluating a special foodservice project. The student meets with the faculty on a regular basis for consultation, information and evaluation. This experience updates and improves skills in a particular area and/or helps the student learn new skills.

CHRM 2910 Restaurant Consulting Practicum 2 – 7.5 – 4.5
This course creates an industry-driven learning environment in which a small community of accomplished culinary students will apply and expand their accumulated knowledge while working side-by-side with chef-instructors, restaurant professionals and other industry leaders. A broad, multi-disciplinary approach will be used to complete a culinary-based client-centered consulting project. Possible projects include but are not limited to restaurant openings, recipe development, employee handbooks, training manuals, menu design and development, kitchen layout, event planning and concept development. Students will need flexibility in their scheduling, a commitment to team-based learning, advanced culinary skills, solid business etiquette and great organizational abilities in order to be successful in this course.

CHRM 2920 Food and Media Studio 2 – 7.5 – 4.5
A broad, multi-disciplinary approach will be used to develop food-related media pieces including but not limited to cookbooks, television programs, magazine articles, commercial art and radio programs. The members of the studio will select and create a professional quality media piece for distribution. Students will need flexibility in their scheduling, a commitment to team-based learning, advanced culinary and/or media development skills and great organizational abilities in order to be successful in this course.

CHRM 2970 Culinary Competition 0 – 9 – 3
This course is required for all those wishing to participate on culinary competition teams through the Institute for the Culinary Arts. The course will introduce students to the rigors of professional culinary competition as sanctioned by various organizations including the American Culinary Federation, the Research Chefs Association and the Retail Baker's Association. Students will develop competition quality menus, refine their culinary skills, apply knowledge obtained throughout the culinary arts curriculum, foster team-building skills and gain exposure to their regional and national contemporaries. Completion of this course requires participation in an extracurricular sanctioned culinary event that may require additional fundraising and membership in outside organizations.

CHRM 2971–2978 Culinary Competition 0 – 9 – 3
Prerequisite (1): CHRM 2970
Designed for students pursing excellence through participation on the culinary competition team. These courses are a continuation of the skills and knowledge introduced in CHRM 2970.

CHRM 2980 Student Manager 0 – 13.5 – 4.5
Prerequisites (3): CHRM 2110, CHRM 2130 and CHRM 2550 or CHRM 2475
The student participates in the daily supervision and management of the kitchen and dining area. The course focuses on interpersonal skill development, menu planning and quality control.

CHRM 2981 Internship* Variable
Prerequisites (3): HMRL 1010, CHRM 1999 and instructor approval; Culinology transfer students must take CHRM 2390 as a prerequisite
Through goal-directed practice in a food-related establishment, students apply classroom knowledge and skills. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

**Students wishing to register for internship courses should call (402) 457-2510 before registering.*

CHRM 2982 Bakery Student Manager 0 – 13.5 – 4.5
Prerequisite (1): CHRM 2280
This course provides students with practical experience in the operation of the retail bakery from the perspective of a student manager. This experience includes bakery menu planning, product packaging, displaying and pricing, quality and cost control as well as customer service and relations. These duties will tie into classroom work (sanitation, nutrition, purchasing, cost management, supervision) in a practical way.

CHEF'S APPRENTICESHIP – Third Year
The practica are special cooperative educational experiences with the College and approved chefs. The student works a minimum of 150 hours per quarter and maintains a logbook of hours, experiences and recipes.

CHRM 2995 Apprenticeship Practicum V 0 – 15 – 3
Prerequisite (1): CHRM 1994

CHRM 2996 Apprenticeship Practicum VI 0 – 15 – 3
Prerequisite (1): CHRM 2995

CHRM 2997 Apprenticeship Practicum VII 0 – 15 – 3
Prerequisite (1): CHRM 2996
Should focus on Garde Manger and buffet skills

CHRM 2998 Apprenticeship Practicum VIII 0 – 15 – 3
Prerequisite (1): CHRM 2997
Should focus on gourmet a la carte cookery in a fine dining setting.

CHRM 2999 Portfolio Development* **0.5 – 4.5 –2**
Prerequisite (1): All program option classes are completed or in progress
All skills gained throughout the program are documented through the completion of a culinary and academic portfolio. The student also completes a final project to demonstrate mastery of the entire curriculum. Should be taken in the last quarter of enrollment before graduation.

**CHRM 1000,1999, 2000 and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management Program.*

DENTAL ASSISTING (DENT)

The Dental Assisting Program has special admission requirements. Students must be accepted into the program. For information, contact Student Services.

DENT 1000 Introduction to Dental Assisting **2 – 0 – 2**
This course includes a brief history of dentistry and dental assisting, educational and legal requirements for the dental team and discussion of dental assisting as a profession. Basic terminology necessary for communicating with other dental professionals and the public/patient(s) and identifying the different types of dental patients and how to work them in the office is also covered.

DENT 1020 Dental Office Procedures **3 – 0 – 3**
This course provides instruction in the management of the dental assistant's role as a receptionist. Areas covered include appointment control, recall programs, collections, letter writing, filing systems, recording fees charged and paid, dental payment plans, prepaid dental care plans, inventory control, purchasing and disbursements.

DENT 1100 Dental Anatomy **4 – 0 – 4**
This course covers the embryonic development and histology of the skull and dentition; the characteristics and functions of human dentition; the study of the bones, muscles, nerves and blood vessels of the head and neck; and the salivary glands and paranasal sinuses.

DENT 1120 Related Anatomy **2.5 – 0 – 2.5**
Prerequisite: (1) Acceptance into the Dental Assisting Program
This course of study presents the basics of body structure and function. The student gains an understanding of patterns enabling the body systems to perform as an integrated whole.

DENT 1140 Dental Pathology and Microbiology **2.5 – 0 – 2.5**
This course covers dental pathology and microbiology; included is an introduction to common abnormalities of the teeth and supporting structures, the oral symptoms of systemic diseases and the principles of disease transmission.

DENT 1160 Dental Pharmacology **2 – 0 – 2**
This course is a study of various drugs used in dentistry, preparation of prescriptions for doctor signature, drug effects on patients and principles of pain control including types of anesthetic agents.

DENT 1180 Nutrition and Preventive Dentistry **3 – 0 – 3**
This course includes the basic study of diet and nutrition, its relationship to oral health with emphasis on dietary counseling and philosophy of preventive dentistry, personal oral hygiene and systemic and topical fluorides.

DENT 1200 Dental Materials **4 – 4.5 – 5.5**
This course is designed to give the students information on the composition and manipulation of materials used in restorative dentistry such as cements, amalgam, composites, glass ionomers, synthetic resins, temporary restorations and metals. Other materials such as waxes, impression materials and gypsums are covered. The students will polish appliances and fabricate custom trays, bleaching trays, mouth guards and temporary crowns and bridges. Placement and removal of periodontal dressing and temporary crowns will also be covered.

DENT 1230 Dental Specialties I **4 – 0 – 4**
This course provides the fundamentals of endodontics, periodontics and oral surgery procedures with detailed instruction of the dental assistant's role in each specialty area including instrumentation.

DENT 1240 Dental Specialties II **2 – 0 – 2**
Prerequisite (1): Successful completion of DENT 1230
This course provides the fundamentals of pediatric dentistry, orthodontics and fixed and removable prosthodontics with detailed instructions of the dental assistant's role in each specialty area including instrumentation.

DENT 1260 Infection Control **2 – 3 – 3**
This course covers infection control as it relates to dental assisting. Topics include universal precautions, methods of disinfection and sterilization and proper use of chemicals and equipment.

DENT 1280 Dental Office Emergencies 2.5 – 0 – 2.5
Prerequisite (2): Successful completion of DENT 1160 and current CPR card for healthcare workers
This course is a study of medical and dental emergencies that occur in the dental office. Instruction includes ways to prevent or reduce the number of emergencies, office preparation for an emergency, taking of vital signs, the use of medical emergency equipment, review of CPR including AED, utilizing OSHA guidelines during an emergency and legal issues to consider when treating a dental patient.

DENT 1310 Dental Radiology I 2 – 1.5 – 2.5
This course introduces the student to dental film types, anatomical landmarks, mounting of films, generation of x-rays, manual film processing and intraoral paralleling techniques.

DENT 1320 Dental Radiology II 3 – 3 – 4
Prerequisite (1): Successful completion of DENT 1310
This course provides instruction in accessory radiographic techniques, patient management, technique error identification, automatic film processing and preliminary film interpretation. Also included are radiation biology, patient protection, operator protection and extraoral radiography.

DENT 1350 Chairside Assisting I 3 – 3 – 4
This course includes a detailed and practical application of dental equipment, rotary and dental hand instruments, arrangement of the patient and dental team during all phases of dentistry and instrument transfer. Oral diagnosis with a focus on patient records including medical/dental histories and charting of a dental patient is covered.

DENT 1360 Chairside Assisting II 3 – 3 – 4
Prerequisite (1): Successful completion of DENT 1350
This course includes a detailed study and practical application of maintaining the operating field, rubber dam, removal of sutures, amalgam and composite instruments, placement and removal of matrices, placement of topical anesthetic and preparation and proper handling of dental syringes.

DENT 1370 Chairside Assisting III 3 – 3 – 4
Prerequisite (1): DENT 1360
This course includes a detailed study and practical application of the following procedures: oral inspection, alginate impression, model trimming, coronal polish, placement and removal of retraction material, oral brush biopsy and applying pit and fissure sealants.

DENT 1991 Clinical Experience I 0.5 – 7 – 2.5
The Dental Assisting student is assigned to assist junior and senior students at Creighton University Dental College. Assignments include the areas of oral diagnosis, radiology, oral surgery, periodontics, endodontics, fixed and removable prosthodontics, orthodontics, pediatric dentistry and operative dentistry. (Course meets for four weeks.)

DENT 1992 Clinical Experience II 0 – 24 – 8
Prerequisite (1): Successful completion of DENT 1991
The Dental Assisting student completes his/her clinical experience in local dental offices, which include general practitioners, specialty offices, dental clinics and/or government dental clinics. This experience involves working in each office for a minimum of two weeks, giving the student final preparation and job opportunities for dental assisting. (Course meets for ten weeks.)

DENT 1993 Clinical Seminar 2 – 0 – 2
Prerequisite (1): Successful completion of DENT 1991
This course combines the sharing of Dental Assisting students' clinical experiences from DENT 1992 Clinical Experience II reviewing dental assisting as a profession and OSHA, discussing employment and legal and ethical issues of the dental profession.

DIESEL TECHNOLOGY (DESL)

DESL 1000 Diesel Preventative Maintenance 3 – 3 – 4
Prerequisites (2): Hands-on nuts and bolts test and CAPS test
The student will learn the basic shop tools, equipment and practices to start a career in diesel technology. The basics of truck and equipment preventative maintenance and inspection will be studied.

DESL 1010 Diesel Electricity 1 – 3 – 2
The student will gain a fundamental understanding of electric principles that are used in the diesel technology career field.

DESL 1110 Diesel Engine Fuel Systems 2 – 3 – 3
Prerequisite (1): DESL 1230
Fuel injection principles will be covered in this course. Diesel fuel pumps, nozzles, hydraulic and electronic injectors will also be studied.

DESL 1115 Alternative Fueled Engines 2 – 3 – 3
The student will study the alternative fueled engine's ignition and fuel systems. This course will cover both current and older systems that are widely used.

DESL 1200 Fundamentals of Hydraulics 2 – 3 – 3
The basic principles of hydraulic systems and component identification are covered in this course.
Activities involving schematic usage and symbol identification will enhance students' diagnostic skills.

DESL 1210 Diesel Electronics 3 – 3 – 4
Prerequisite (1): DESL 1010
This course covers the electronic systems that are used in today's diesel trucks and equipment. Theory, operation and testing of common systems will be investigated with hands-on trainers and live work.

DESL 1220 Advanced Diesel Hydraulics 5 – 3 – 6
Prerequisite (1): DESL 1200
The student will study the hydraulic systems that are used on heavy equipment, and it will closely relate to the systems used on medium and light duty construction/utility equipment.

DESL 1230 Diesel Engine Fundamentals 3 – 3 – 4
Prerequisites (2): Hands-on nuts and bolts test and CAPS test
Diesel engine principles and component identification will be studied through lecture and entry-level hands-on engine assembly and disassembly.

DESL 1301 CDL for Diesel Technicians I 2.5 – 0 – 2.5
Prerequisites (4): Complete and pass a DOT physical and drug screen, posses a valid driver's license from the state of residence, currently enrolled in MCC's Diesel Technician Program or employed as a technician by an MCC Diesel Advisory Council (DAC) member and instructor approval
This initial two-week training for a student's CDL license will cover the basic study requirements for all non-vehicle activities necessary to obtain a Class A CDL license. The student will be prepared to pass the required general knowledge, combination vehicle, air brake and pre-trip inspection CDL written exams (valid six months) at the DMV. The general knowledge exam will allow the student to obtain the CDL learning permit (valid six months), which is necessary for the student to complete the CDL for Diesel Techs II. This beginning course is the first of a two-part series and is classroom lecture only.

DESL 1302 CDL for Diesel Technicians II 0 – 3 – 1
Prerequisites (4): Successfully complete DESL 1301, possess a valid driver's license and CDL learner's permit from the state of residence, possess a current DOT physical and drug screen and instructor approval
This course completes the study begun in DESL 1301 with behind-the-wheel training that will be conducted in three weeks. This accelerated training will include instruction and participation in safely driving and backing a Class A vehicle. This training will prepare students to take the Department of Motor Vehicles CDL Driving and Basic Skills exam with air brakes. Upon successfully obtaining a CDL license, the student will be qualified to operate a Class A commercial vehicle. This final training is lab only.

DESL 1310 Truck Driver CDL Training I 5.5 – 9 – 8.5
Prerequisites (7): Possess a valid driver's license, complete and pass a DOT physical and pass a drug screen two weeks prior to the first day of class, current DMV driving record within 60 days, COMPASS evaluation must score above 60 in reading, complete a background information sheet, an interview with the instructor and instructor approval
This introduction into CDL training will provide the students with the basics needed for all non-vehicle activities necessary to obtain employment by major transportation companies. Students will be prepared to pass the CDL written exams necessary to obtain a CDL learner's permit.

DESL 1312 Beginning Class B CDL Training 5.5 – 9 – 8.5
Prerequisite (1): DOT required physical exam and drug screening
This introduction into training will cover the basic study requirements for non-vehicle activities in CDL (Commercial Drivers' License) training in addition to preparing for the required backing and vehicle inspection skills. Topics to include safe driving, vehicle inspections and components, all CDL endorsements except school bus, control (shifting, driving, backing), cargo handling, understanding FMCS regulations, trip planning, employer-employee relations customer relations and map reading. This program is designed to prepare the student to complete the required Class B CDL written tests at the DMV and receive their learner's permit.

DESL 1320 Truck Driver CDL Training II 4 – 16 – 9
Prerequisites (3): Successfully complete DESL 1310, possession of a CDL learning permit and possession of a valid driver's license
Co-requisite: HLTH 1010
During this advanced stage, training will include instruction and hands-on experience in safely driving and backing a Class A combination vehicle. Students will complete HLTH 1010 while attending the DESL 1320 course. Students will also participate in a professional defensive driving course and have the opportunity to drive at night and on short road trips. This course will prepare students to take the DMV CDL exam, which upon passing will qualify the student to operate a Class A commercial vehicle.

DESL 1322 Advanced Class B CDL Training 6 – 10 – 9
Prerequisites (2): Possession of a CDL learner's permit and DESL 1312
This course will cover advanced CDL (Commercial Drivers' License) training. Topics to include safe driving, vehicle inspections and components, control (shifting, driving, backing), trip planning and CPR/first aid training. Upon successful completion of this program, the student will receive a certificate of completion and be qualified to test at the DMV for a CDL Class B license. Upon successful testing at the DMV, the student will be issued a CDL class B license with necessary endorsements from the DMV and be qualified for employment in the truck driving career as an entry-level driver.

DESL 1620 Climate Control/Heating and Air Conditioning 3 –3 – 4
Prerequisite (1): DESL 1010
Diesel heating, air conditioning and support systems will be covered in-depth. Troubleshooting and repair will be done in the shop with a variety of trucks and equipment.

DESL 2100 Heavy Duty Drivetrain 5 – 3 – 6
Repair and maintenance of heavy duty truck clutches, transmissions, drivelines and differentials will be covered in this course.

DESL 2110 Heavy Equipment Drivetrain 4 – 6 – 6
The student will study heavy equipment traction drives, brake systems, differentials and their steering systems along with track and suspension systems.

DESL 2200 Steering, Suspension and Brakes 5 – 3 – 6
This course is a study of heavy duty truck steering, suspension and air brake systems. Students will also learn to repair and maintain these systems.

DESL 2210 Diesel Engine Controls 3 – 3 – 4
Prerequisites (2): DESL 1210 or verifiable experience and DESL 1110
This course will cover engine electronics theory, diagnosis and repair of engine control systems.

DESL 2215 Diesel Generator Controls 2 – 3 – 3
Prerequisites (3): DESL 1010, DESL 1110 and DESL 1210
The student will study the electronic and mechanical governor controllers and their inputs for both diesel and alternative fueled generator engines.

DESL 2220 Diesel Engine Diagnostics 2 – 6 – 4
Prerequisites (3): DESL 1110, DESL 1230 and DESL 2210
In this course students will learn to use the latest diagnostic equipment and practice the hands-on skills needed to repair diesel engines.

DESL 2230 Diesel Engine Rebuild 1 – 9 – 4
Prerequisite (1): DESL 1230 or verifiable experience
In this course students will learn to do both in-chassis and out-of-chassis diesel engine rebuilds.

DESL 2240 Engine Maintenance and Emissions 1 – 6 – 3
Prerequisite (1): DESL 1230 or verifiable experience
Students will learn to tune-up the latest diesel engines and maintain the after treatment systems.

DESL 2250 Field Service Maintenance 5 – 3 – 6
Prerequisite (1): DESL 1302 or valid Class B CDL
This course will refine the safety, productivity and situational awareness that will be required of professional technicians doing field service in the heavy equipment, power generation and construction utility trades.

DESL 2900 Special Topics in Diesel Technology Variable
This course permits instruction in special content areas not included in other courses in the Diesel Technology Program.

DESL 2980 On-the-Job Training/ Work Externship 0 – 120 – 6
Prerequisite (1): DESL 1320
This course gives the student an opportunity to review, with an MCC CDL instructor, the driving skills learned during his/her first weeks of employment. This also allows for additional instruction by an MCC CDL instructor if required. Students must complete at least 240 hours of instruction with a mentor in order to receive credit for this course. Application for On-the-Job Training/Work Externship must be approved by the program faculty.

DESL 2981 Diesel Internship I 0 – 320 – 8
Prerequisite (1): Instructor approval
This internship gives students the needed experience to advance their skills while working with a qualified mentor in a diesel repair shop or dealership. The experience provides students the opportunity to practice their skills in real-life work situations. Applications for internships must be approved by program faculty.

DESL 2982 Diesel Internship II 0 – 320 – 8
Co-requisite (1): DESL 2230 (must be taken at the same time or completed earlier)
Prerequisite (1): DESL 2981
This second internship gives the advanced student the experience necessary to acquire and be successful in a job in a diesel repair shop or dealership. Applications for this internship must be approved by program faculty.

DESL 2983 Diesel Internship III 0 – 160 – 4
Prerequisite (1): Instructor approval
This internship gives the student a real experience in the diesel trade and is designed to solidly instill previously learned college classroom material while opening future employment opportunities.

DESL 2984 Diesel Internship IV 0 – 160 – 4
Prerequisite (1): DESL 1311
This internship is used to complete a Diesel Technology student's degree by providing a second level of hands-on learning in the real work environment.

DRAF – SEE MECHANICAL DESIGN TECHNOLOGY

EARLY CHILDHOOD EDUCATOR (ECED)

Persons with extensive workplace skills should see a full-time ECED instructor for appropriate advisement.

ECED special requirements: Background check by the Department of Health and Human Services Child and Adult Abuse Registries and/or the Department of Safety Criminal Record Registry.

ECED 1050 Expressive Arts 4.5 – 0 – 4.5
Selection, construction and use of materials, activities and experiences that encourage the young child's creativity and aesthetic appreciation through the visual arts, music, body movement and dramatic play are studied. Curriculum is designed for three to eight years of age.

ECED 1060 Observation, Assessment and Guidance **4.5 – 0 – 4.5**
This course introduces a variety of observation, assessment and guidance strategies used in early childhood education settings birth through age eight.

ECED 1110 Infant/ Toddler Development **4.5 – 0 – 4.5**
This course focuses on typical and atypical development of children in the prenatal period of development through 36 months of age. Planning curriculum in the domains of physical growth and motor skills, cognition, language and social/emotional development are examined.

ECED 1120 Preschool Child Development **3 – 0 – 3**
This course focuses on typical and atypical development of the child ages three through five years in the domain of physical growth and motor skills, cognition and language and social and emotional development.

ECED 1150 Introduction to Early Childhood Education **4.5 – 0 – 4.5**
An overview of early childhood education, history, trends and the philosophies of various programs, diversity, inclusion, licensing standards, current legislation, professionalism and advocacy are examined.

ECED 1160 Early Language and Literacy* **4.5 – 0 – 4.5**
Prerequisites (2): Select two from ECED 1110, ECED 1120 or ECED 1230
This course focuses on the development of literacy and language skills from birth to age eight. The student will plan and prepare developmentally appropriate language and literacy activities.

> **It is highly recommended that the student be eligible for English Level I prior to enrolling in this course.*

ECED 1220 Prepracticum **1.5 – 0 – 1.5**
This course is designed to provide an orientation to practicum experiences in the Early Childhood Educator Program. Students will review the process for setting up a practicum and forms used during practicum, understand childcare licensing requirements for their state and have their names cleared through appropriate background checks. Students will understand practicum expectations and responsibilities, methods of evaluation and the importance of professionalism in the workplace.

ECED 1221 Infant/Toddler Practicum* **0 – 9 – 3**
Prerequisites (4): ECED 1150, ECED 1060, ECED 1110 and ECED 1220
Students experience working with infants and toddlers (six weeks through two years of age) in the community on a weekly basis and become familiar with the daily routine of programs serving these ages. Basic skills include developmentally appropriate interactions, supporting caregiver plans and fostering children's development. The student will spend 45 hours with infants and 45 hours with toddlers and plan a few experiences appropriate for these age groups.

ECED 1230 School-Age Child Development **3 – 0 – 3**
This course focuses on typical and atypical development of the child ages 5–12 years in the domains of physical growth and motor skills, cognition and language and social and emotional development.

ECED 1240 Preschool-Age/ School-Age Practicum* **0 – 9 – 3**
Prerequisites (6): ECED 1110, ECED 1120, ECED 1050, ECED 1220, ECED 1221 and ECED 1230 (ECED 1230 can be taken concurrently or have been completed earlier)
Students experience working with preschool- and school-age children in the community on a weekly basis and become familiar with the daily routine of programs serving these ages. Basic skills include developmentally appropriate interactions, supporting caregiver plans and fostering children's development. The student will spend 45 hours with the preschool-age children and 45 hours with school-age children and plan a few experiences appropriate for these age groups.

ECED 1260 Children's Health and Nutrition **4.5 – 0 – 4.5**
In this course, the student gains an understanding of the inter-relatedness of health, safety and nutrition in the life of a young child, birth through age eight. The student learns about health appraisals and appropriate assessment tools. An in-depth analysis is made of the infectious process and effective control of communicable diseases and acute illnesses found in the early childhood years and settings. Safety management and the handling of child abuse and neglect are examined. The student learns appropriate nutritional guidelines and practices for planning meals and snacks in the classroom.

ECED 2050 Children with Exceptionalities **4.5 – 0 – 4.5**
Prerequisites (2): Select two from ECED 1110, ECED 1120 or ECED 1230
Students become aware of the theory, development and philosophy of early childhood education programs serving children with exceptionalities. Topics include working with families, legislation, role of the interventionist, interdisciplinary teams and inclusion of children with special needs in natural environments.

ECED 2060 Early Childhood Education Curriculum Planning **4.5 – 0 – 4.5**

Prerequisites (2): Select two from ECED 1110, ECED 1120 or ECED 1230

This course prepares students to plan a developmentally appropriate curriculum and environments for children ages three to eight years of age. Topics include writing goals and objectives, lesson plans, daily schedules, working with parents and inclusionary practices.

ECED 2070 Family and Community Relations **4.5 – 0 – 4.5**

Prerequisite (1): Completion of all first-year courses as stated in the College catalog

This course focuses on the development of skills, techniques and attitudes needed to form successful collaborations with diverse families and communities.

ECED 2080 Advanced Child Development **4.5 – 0 – 4.5**

Prerequisites (2): Select two from ECED 1110, ECED 1120, ECED 1230 or PSYC 1130

In this course, the student receives an in-depth study of the whole child. An examination is made of factors that impact on the development of the child, research methods utilized to acquire such data and developmental changes that occur in each level/stage of childhood. Study is focused on the domains of physical, social, emotional and cognitive development in infancy, toddlerhood, early childhood, middle childhood and adolescence. An analysis of the theories explaining such development is also made. Students are required to do observation in a variety of settings.

ECED 2090 Early Childhood Student Teaching Practicum* **0 – 18 – 6**

Prerequisites (4): ECED 2080, ECED 1160, ECED 2050 and ECED 2060

Students will work closely with a supervising teacher to develop skills in management, environmental planning and curriculum development. The student may select the age group with whom to specialize. Students will be expected to select and develop materials for interest centers and develop and implement daily lesson plans. (Formerly CHC 280)

** The student enrolling in the ECED practica should register through the Early Childhood Practicum web site at www.mccneb.edu/ecp.*

ECED 2095 Current Topics in Early Childhood Education* **4.5 – 0 – 4.5**

Prerequisite (1): Completion of 15 ECED credit hours as stated in the College catalog

Students will investigate current topics of interest to early childhood professionals. They will select articles and provide written and oral critiques. Students also develop a professional portfolio that demonstrates their competencies.

**There are deadlines for practicum applications.*

ECED 2450 Administration of Early Childhood Education Programs **4.5 – 0 – 4.5**

Prerequisite (1): Completion of 9 ECED credit hours

The student gains knowledge and planning skills in all of the procedures needed to operate early childhood education programs. Policymaking, record keeping, staff management and training, supervision, budgeting, hiring and dismissal of staff procedures are analyzed. In addition, program management of spatial resources, health and safety programs, foodservice operations, parent relations and future trends in the operation of early childhood settings are explored.

ECED 2900 Special Topics in Early Childhood Education **Variable**

This course number and title allows the Early Childhood Education Program at MCC to design courses to meet the specific needs of an agency, organization, education program or group.

ECONOMICS (ECON)

It is strongly recommended BSAD 1000 be taken prior to ECON 1000 and ECON 1100.

It pays to be prepared. It is strongly recommended that students complete math requirements prior to taking Economics courses.

ECON 1000 Macroeconomics **4.5 – 0 – 4.5**

Theories of employment, national income, inflation and economic growth are explored. Topics include income theories, savings and investment, business fluctuations, inflation, growth theories and monetary and fiscal policies.

ECON 1100 Microeconomics **4.5 – 0 – 4.5**
Microeconomics presents the theory and application of the four market structures: pure competition, monopolistic competition, oligopoly and monopoly. The revenue, costs, output and prices for each market structure are determined along with the social implications of each market form. In addition, various social issues such as consumer choice, pollution, healthcare, public works projects and poverty transfer programs are analyzed using the microeconomic principles of elasticity, benefit/cost and diminishing returns analysis.

ECON 2720 International Economics **4.5 – 0 – 4.5**
Prerequisites (2): ECON 1000 and ECON 1100
This course presents a broad overview of the fundamentals of international business and trade and familiarizes the student with the basic terminology, key concepts and issues unique to the subject. The student studies the global economy including international trade, investments and the business environment. The management of multi-national firms is studied in the context of the international financial system.

ECON 2900 Special Topics in Economics **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other economics courses.

EDUCATION (EDUC)

EDUC 0090 Math Praxis Tutorial **1 – 0 – 1**
This course prepares students for the Praxis 1/PPST: Pre-Professional Skills Math Test necessary for students entering a teacher education program. Students enrolled in this course will conduct self-paced practice tests and learning activities.

EDUC 0091 Reading Praxis Tutorial **1 – 0 – 1**
This course prepares students for the Praxis 1/PPST: Pre-Professional Skills Reading Test necessary for students entering a teacher education program. Students enrolled in this course will conduct self-paced practice tests and learning activities.

EDUC 0092 Writing Praxis Tutorial **1 – 0 – 1**
This course prepares students for the Praxis 1/PPST: Pre-Professional Skills Writing Test necessary for students entering a teacher education program. Students enrolled in this course will conduct self-paced practice tests and learning activities.

EDUC 1010 Introduction to Professional Education* **4 – 1.5 – 4.5**
This course combines academic inquiry into the dynamics that exist between school and society with a field experience in public schools. This course is inherently foundational in that it includes units such as the history and philosophy of education. The state of Nebraska mandates a minimum of 100 hours in field experience prior to student teaching. The design of EDUC 1010 incorporates a minimum of 25 hours of early field experience in a public school setting through partner schools designated by neighboring public school systems.

> **Because there is strong emphasis on the writing component, including research, it is highly recommended that ENGL 1010 and ENGL 1020 be completed prior to registering for this course.*

EDUC 2010 Human Growth and Learning **4.5 – 0 – 4.5**
Prerequisites (3): Successfully completed the PPST, EDUC 2020 and EDUC 2030
This course is designed for students planning to transfer and enroll in the Teacher Education Program in the College of Education at the University of Nebraska–Omaha but may be of interest to others. It will focus on the growth, development and learning processes of the individual from conception through adolescence. The class will emphasize how current educational practices and theories of development and learning impact and influence each other. Students will investigate how physical and emotional development of children and teens impact their cognitive growth. Students will apply their knowledge to field observations and laboratory experiences in order to adequately internalize and transfer the course content to the teaching environment.

EDUC 2020 Educational Foundations **4.5 – 0 – 4.5**
Prerequisite (1): Application and admission into the program
The course will provide candidates with the philosophical, historical and social foundations background that will enable them to understand their roles as teachers and as orchestrators of the learning environment. The content will be based on a study of the driving social forces as they relate to the different time periods and philosophic positions and the impact these forces have in shaping the role of education. Candidates will study and understand the national and state standards relevant to K-12 education and teacher preparation in the United States. Each candidate will acquire competency in using education technologies such as Internet-based course delivery systems, database software and digital portfolios. All candidates will develop dispositions for ethics in teaching and a high-level commitment for the teaching profession.

EDUC 2030 Human Relations in Education☯ 4.5 – 0 – 4.5
Prerequisite (1): Application and administration into the program
This course is designed to increase multicultural knowledge and positively impact the diversity disposition of pre-service teachers. It is also designed to help pre-service teachers become more aware of ways to motivate and positively impact the youth they will encounter in their future classrooms. High value is placed on the discussion of human understanding, tolerance and the acceptance of multiple worldviews. Teacher candidates will examine existing attitudes toward various minority groups such as race, ethnicity, age, sex and mental and physical disabilities and explore the ways in which these attitudes influence the assessment of learner needs and prescribe learning activities. Teacher candidates will also examine the role of attitudes in implementing and assessing learning experiences. Special emphasis is put on skill development and the training of pre-service teachers to be effective orchestrators of the learning environment, which helps to ensure the performance assessment of teacher candidates.

ELECTRICAL APPRENTICESHIP (ELAP)

ELAP 1110 Electrical IA 7 – 0 – 7
This course is the introduction to the electrical trade. It will cover the math used in electrical calculations, OHM's Law and electrical fundamentals.

ELAP 1120 Electrical IB 7 – 0 – 7
Prerequisite (1): ELAP 1110
This course will continue with the electrical fundamentals from Electrical IA, and the apprentice will be introduced to the National Electrical Code (NEC). This course will also include wiring basic electrical circuits and bending conduit.

ELAP 1210 Electrical IIA 7 – 0 – 7
Prerequisite (1): ELAP 1120
The apprentice will learn how to layout and install branch circuits in all areas of residential construction with emphasis on the National Electrical Code (NEC).

ELAP 1220 Electrical IIB 7 – 0 – 7
Prerequisite (1): ELAP 1210
This course is an introduction to the layout and construction of residential electrical systems. Emphasis will be on the National Electrical Code (NEC) as it relates to the residential wiring. Apprentices will calculate electrical service requirements, size over-current devices and different conductors.

ELAP 2310 Electrical IIIA 7 – 0 –7
Prerequisite (1): ELAP 1220
This course is an introduction to the design and construction of commercial electrical systems. Emphasis will be placed on National Electrical Code (NEC) as it relates to commercial electrical systems.

ELAP 2320 Electrical IIIB 7 – 0 – 7
Prerequisite (1): ELAP 2310
This course will continue on from where Electrical IIIA left off. The apprentice will learn to calculate electrical service and branch circuits requirements for commercial electrical systems.

ELAP 2410 Electrical IVA 7 – 0 – 7
Prerequisite (1): ELAP 2320
This course will deal with motor control circuits and electrical devices used in commercial electrical systems. The apprentice will use the National Electrical Code (NEC) to properly size branch circuit and feeder conductors and over-current protection for motors.

ELAP 2420 Electrical IVB 7 – 0 – 7
Prerequisite (1): ELAP 2410
This course will be a continuation of Electrical IVA. The apprentice will use the National Electrical Code (NEC) to calculate feeder loads, size panel boards and parallel conductors. This course will also cover transformer theory and low-voltage systems.

ELAP 2550 Journeyman Test Prep Course 3 – 0 – 3
This course covers relevant parts of the National Electrical Code (NEC) with emphasis on the calculations used in the code in order to prepare students to successfully complete the journeyman electrician or electrical contractor's exam.

ELECTRICAL TECHNOLOGY (ELTR)

ELTR 1200 Basic Electricity 6 – 1.5 – 6.5
This course includes an introduction to electrical theory, series and parallel circuits. Areas of emphasis are alternating current, OHM's law, meters, grounding, preview of the National Electric Code (NEC), troubleshooting and repair. (Cross-listed as INCT 1200)

ELTR 1210 Residential Wiring 9 – 0 – 9
Prerequisite (1): ELTR 1200
This course is designed to give students basic knowledge of the electrical circuitry found in residential wiring. Students will learn to apply the National Electrical Code (NEC) standards. (Cross-listed as INCT 1210)

ELTR 1212 Motor and Machine Controls 9 – 0 – 9
Prerequisite (1): ELTR 1200, INCT 1200 or ELAP 1220
This course introduces the student to state-of-the-art motor control components and provides them with a basic knowledge of control circuitry. The student will build on his/her experiences from Basic Electricity by designing, building and troubleshooting more complex circuits. The designed circuits will control live, three-phase, line voltage equipment. Devices such as contactors, motor-starters, relays, timers, mechanical and proximity switches are used. Electronic motor controls and programmable devices such as variable frequency drives are introduced and utilized in this course. (Cross-listed as INCT 1212)

ELTR 1220 Commercial Wiring 9 – 0 – 9
Prerequisites (2): ELTR 1200 and ELTR 1210
This course includes the study of branch circuits, wiring methods and application of the NEC. Following the requirements of the NEC, the student will learn how to select the proper type and size of boxes, raceways and conductors. The student will also learn how to calculate box fill, conduit fill and conduit bending.

ELTR 1331 Information Transport Systems Level I 4.5 – 0 – 4.5
Prerequisite (1): ELTR 1200 or INCT 1200
Students will work with various types of insulation displacement terminations as well as wire wrapping. Codes and standards and how they apply to the Information Transport System will be explained. The student will work with various types of termination hardware and identify where it is used. Color codes and how they apply to the infrastructure, cable pulling and various types of media used for the job will also be covered. (Cross-listed as INCT 1331)

ELTR 1350 Electrical Print Reading 3 – 0 – 3
Prerequisites (2): INCT 1212 or ELTR 1212 and ELTR 1220 or ELAP 2310
This course will provide the student with a general understanding of blueprint reading, including an overview of architectural drawings and mechanical drawings with an emphasis on electrical drawings.

ELTR 2231 Programmable Logic Controllers I 4.5 – 0 – 4.5
Prerequisite (1): ELTR 1212
This course introduces Programmable Logic Controllers (PLCs). Various programmable control devices are covered. System components, installation and introductory programming terms are covered. Students will learn to monitor, upload and download programs to processors. (Cross-listed as INCT 2231)

ELTR 2240 National Electrical Code 4.5 – 0 – 4.5
Prerequisites (3): ELTR 1200, ELTR 1210 and ELTR 1220
This course is designed to train the student to properly use the National Electrical Code (NEC).

ELTR 2331 Electric Service and Installation 4.5 – 0 – 4.5
Prerequisites (2): INCT 1220 or ELTR 1220 and ELTR 2240
This course is designed to give the student an understanding of the electric service, system transformers and the principals of grounding and bonding electrical systems.

ELTR 2900 Special Topics in ELTR Variable
This course permits instruction in special content areas not included in other courses in the Electrical Technology Program.

ELTR 2981 Internship Variable
Prerequisite (1): Instructor approval
The internship provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested students must contact his/her faculty advisor. Based on Nebraska State Electrical Board guidelines, students must complete 400 hours of work related to the electrical trade.

ELECTRONIC IMAGING AND MEDIA ARTS (EIMA)

EIMA 1100 Raster Image Painting 3.5 – 3 – 4.5
This foundation course focuses on the visual and technical aspects of raster image painting applications. The student acquires a basic understanding of computer graphics tool and menu functions and computer graphics vocabulary. A raster software application is learned through a series of exercises and projects that provoke and explore creative solutions through the application of drawing and design theory and principles. Basic principles of 2-D animation are also introduced and explored. Corel Painter is the primary software while Adobe Photoshop, Illustrator and QuickTime are incorporated. Dreamweaver is introduced.

EIMA 1110 Vector Image Drawing 3.5 – 3 – 4.5
This foundation course focuses on the visual and technical processes of vector (resolution independent) applications and continues experience with raster/bitmap software. A vector (resolution independent) software application is learned through a series of exercises and projects that provoke and explore creative problem solving through the application of graphic design theory and principles. Adobe Illustrator is the primary software. Adobe Photoshop, Corel Painter and other software is incorporated and/or introduced.

EIMA 1111 History of Animation 4.5 – 0 – 4.5
This course is a survey of the major developments in film animation from its beginnings to the present day. Students will acquire an understanding of the different styles and evolution of animation as an art form and a means of visual communication reflecting society in both social and historical contexts.

EIMA 1120 Character, Narrative and Storyboard Development 3.5 – 3 – 4.5
Prerequisite (1): ARTS 1010
The basic principles and structure of film and animation are explored through observation, concept and narrative development, character design and storyboard creation. An emphasis is placed on the practice of drawing as a communication process to visualize stories and characters that work as strong animation. Collaboration, brainstorming, dissection, presentation and critiques are central activities. Completion of a final project is required.

EIMA 1130 Web Design and Publishing 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1110
This course provides the student with competency and skill in HTML/XHTML and WYSWYG web page creation. The student will design and construct web pages using HTML/XHTML, WYSWYG applications and supporting applications including Adobe Photoshop, Adobe Illustrator and text editors. The student should have solid experience with bitmap, vector and a page layout application before taking this course. New technologies in HTML/XHTML and other web media may also be addressed and/or introduced.

EIMA 1140 Drawing for Electronic Media 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1100 or EIMA 1110
The content of this course emphasizes concepts and processes of drawing directly into the computer. The primary medium will be drawing with a digitizing pen and pad using bitmap and vector software programs, but traditional drawing materials will be integrated.
Form and space are explored through direct and indirect observation, including studies involving the human figure. Drawing the human form in space will prepare the student for sequential art and animation and will develop basic drawing skills on the computer.

EIMA 1150 Design for Motion Graphics 3.5 – 3 – 4.5
Students explore visual design concepts related to motion graphics. Adobe Photoshop and After Effects are the primary software used to compose still images, live-action video and animation for television, film and new media. This course provides the student with the necessary technical software applications to produce title sequences, station identification, key-frame animation and info-graphics.

EIMA 1210 Flash I 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1110
Parameters of Adobe Flash software are explored. Design elements and principles are applied to graphics, animation and interactive objects using Flash as a medium.

EIMA 1221 Game Design Fundamentals 3.5 – 3 – 4.5
This course explores the practice and theory of interactive art. Students will study the history of both analog and digital games and pursue the creative possibilities of interaction and play-based systems.

EIMA 1230 2-D Animation and Compositing I 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1120
The student creates 2-D animation using traditional cell techniques and the computer based 2-D animation program After Effects. Additional programs used are QuickTime and Photoshop. This course strengthens drawing skills, collaborative production and animation concepts. The student explores animation compositing software and techniques.

EIMA 1231 2-D Animation and Compositing II 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1230
The student creates original 2-D animation focusing on character and story development. Building on skills acquired in EIMA 1230, each student will produce a segment of a group project and an individual project. This course strengthens animation design and problem solving, collaborative production abilities and personal vision. The student further explores After Effects as well as QuickTime and Photoshop.

EIMA 1310 Introduction to 3-D Modeling and Animation* 3.5 – 3 – 4.5
This course is an introduction to the production of motion picture graphics using 3-D modeling and animation software. Techniques of 3-D model execution and scene design with light and camera placement are practiced and examined.

**It is advisable to take EIMA 1100 or EIMA 1110 before EIMA 1310 or to have computer experience.*

EIMA 2120 Electronic Illustration 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1110 or PHOT 1210
Advanced illustration concepts and techniques are explored through vector software such as Adobe Illustrator. Photoshop is also incorporated. Concept development and personal style will be the main emphasis along with demonstrations of computer techniques. Output is both print form and animation. Prior experience with bitmap or vector software is necessary.

EIMA 2210 Flash II 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1210
This course is a continuation of EIMA 1210 with more complex interactive projects that present new problems such as ActionScript and variable driven dynamic applications.

EIMA 2221 Introduction to 3-D Game Development 3.5 – 3 – 4.5
Prerequisite (2): EIMA 1220 or EIMA 1221 and EIMA 1310
This course introduces 3-D game development software and implements the concepts of EIMA 1120 Game Design Fundamentals. The student will learn how to create a basic 3-D game.

EIMA 2311 3D Character Development 3.5 – 3 – 4.5
Prerequisite (1): EIMA 1310
This course is a continuation of the introductory topics presented in EIMA 1310 with an exploration of the techniques of modeling, material definition and animation that are the foundation of 3-D graphics for motion pictures or games. It emphasizes the development of 3-D characters, materials and motion control. An animated character is presented at the conclusion.

EIMA 2321 Intermediate 3-D Modeling and Animation **3.5 – 3 – 4.5**

Prerequisite (1): EIMA 1310

This course is a continuation of topics presented in EIMA 1310 with explorations of the techniques of modeling, material definition and animation that are the foundation of 3-D graphics for motion pictures. It emphasizes the further development of 3-D modeling techniques with more advanced lights and materials.

EIMA 2330 3-D Animation Lab **3.5 – 3 – 4.5**

Prerequisites (2): EIMA 1120 and EIMA 2310 or EIMA 2321 Students with experience in animation techniques that are not represented in this set of prerequisites may enroll with permission of the instructor

This course is an animation project that offers students an opportunity to build upon and integrate existing technical skills, share ideas with students from diverse animation disciplines and produce a more complex project. A short finished animation is presented at the conclusion.

EIMA 2410 Projects Development* **3.5 – 3 – 4.5**

Prerequisite (1): Instructor approval

This course is a capstone experience for the student's completion of the Electronic Imaging and Media Arts Program. The primary activity of the course is the student's amalgamation of technical and aesthetic accomplishment into projects that are representative of individual achievement and principal to the student's portfolio.

**EIMA 2410 must be taken as the last class of the program.*

EIMA 2900 Special Topics in EIMA **Variable**

Prerequisite (1): EIMA 2110

This course is designed to permit instruction in special content areas not included in other courses of the Electronic Imaging and Media Arts Program.

EIMA 2981 Internship **Variable**

The internship program provides students with the opportunity to apply their knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet their academic and career goals, interested students must contact their faculty advisor or the placement office. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

ELECTRONICS TECHNOLOGY (ELEC)

ELEC 1000 Basic Electricity and Electronics **9 – 0 – 9**

The student conducts a study of basic DC circuits, AC circuits, Diode operation and power supply construction. Emphasis is theoretical application to actual circuit operation and assembly with use of normal bench test equipment, digital multimeter, oscilloscope, function generator and DC/AC bench power supply stressed.

ELEC 1010 Electronic Devices and Digital Circuits **9 – 0 – 9**

Prerequisite (1): ELEC 1000

The student conducts a study of semiconductor devices, semiconductor circuits, digital devices and digital circuits. Emphasis is on theoretical application to actual circuit operation and assembly with use of normal bench test equipment, digital multimeter, oscilloscope, function generator and DC/AC power supply.

ELEC 1100 PC Troubleshooting **4.5 – 0 – 4.5**

This course introduces the student to the basic principles of electronics, digital theory and proper use of test equipment related to PC repair. An in-depth study of the hardware components that make up a microcomputer are the main focus of the course. This is achieved using an extensive hands-on approach focusing on PC maintenance, upgrading and troubleshooting.

ELEC 1110 Advanced PC Repair and Configuration **4.5 – 0 – 4.5**

Prerequisite (1): ELEC 1100

This course is a continuation of ELEC 1100. Advanced hardware troubleshooting methods as well as software installation and diagnosis are used in this hands-on experience. Problems associated with DOS, major Windows© products and other software/hardware conflicts are covered.

ELEC 1115 IT Essentials: PC Hardware and Software **9 – 0 – 9**

This course introduces the student to the basic principles of electronics, digital theory and proper use of test equipment related to PC repair. This course is an in-depth study of the hardware components that make up a microcomputer and the role/importance of computer software (operating systems). The course also has an in-depth, hands-on component, which will allow the student to develop the necessary skills to build, configure and troubleshoot a PC. This course also introduces the student to basic computer networking.

ELEC 1120 Network Electronics 4.5 – 0 – 4.5
Prerequisite (1): ELEC 1100 or INFO 2130
This is a hands-on course concentrating on the installation and maintenance of network hardware components. Routers, switches, hubs and wireless hardware will be covered. Other network hardware/ software will be
covered, as well as network cabling and wireless characteristics and installation.

ELEC 1200 Cisco Network Fundamentals☯ 9 – 0 – 9
This is the first of four courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Associate (CCNA) examination. The goal of this course is to introduce the student to fundamental networking concepts and technologies. The course materials assist the student in developing the skills necessary to plan and implement small networks across a range of applications.

ELEC 1210 Cisco Routing☯ 9 – 0 – 9
Prerequisite (1): ELEC 1200
This is the second of four courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. This course includes both static routing and dynamic routing protocols.

ELEC 1300 Radio Frequency Identification (RFID) 4.5 – 0 – 4.5
This course provides the student with background knowledge needed to install and support the growing RFID market. The student learns RFID technology in order to plan, install, maintain, update and optimize RFID systems. The student gains hands-on experience using RFID technology.

ELEC 1400 Wireless Network Infrastructure 9 – 0 – 9
Prerequisites (2): ELEC 1200 and INFO 1023
This is an introductory course on Wireless Local Area Networking. The course encompasses the design, planning, implementation, operation and troubleshooting of Wireless LANs. The course will provide a comprehensive overview of technologies, security and design best practices.

ELEC 2220 Cisco LAN Switching☯ 9 – 0 – 9
Prerequisite (1): ELEC 1210
This is the third of four courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to develop an understanding of how switches are interconnected and configured to provide network access to Local Area Network (LAN) users. This course also teaches how to integrate wireless devices into a LAN.

ELEC 2225 CCNA Security 9 – 0 – 9
Prerequisite (1): ELEC 2220 or instructor permission for work experience
CCNA Security is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop specialized security skills to advance their careers. The curriculum helps prepare the student for entry-level security career opportunities implementing Cisco IOS® Network Security (IINS) certification exam (640-553) leading to the Cisco Certified Network Associate Security certification.

ELEC 2230 Cisco Accessing the WAN☯ 9 – 0 – 9
Prerequisite (1): ELEC 2220
This is the fourth of four courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to introduce the student to fundamental WAN concepts and technologies.

ELEC 2300 Building Scalable Internetworks 9 – 0 – 9
Prerequisite (1): Current CCNA certification
This is one of two courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Professional, BSCI Certification Exam. The goal of this course is to teach the student advanced skills required to implement and support-enterprise class IP routing networks.

ELEC 2320 Building Cisco Multilayer Switched Networks 9 – 0 – 9
Prerequisite (1): Current CCNA certification or any other current CCNP certification
This is one of two courses offered by MCC's Cisco Networking Academy Program, which prepares the student to take the globally recognized Cisco Certified Network Professional, BCMSN Certification Exam. The goal of this course is to teach the student advanced skills required for building enterprise-class switched networks with integrated voice and wireless applications.

ELEC 2900 Special Topics in ELEC Variable
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Electronics Technology Program.

ELEC 2981 Internship Variable
Prerequisite (1): Instructor approval
The internship provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested student must contact his/her faculty advisor or the appropriate dean. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

ENGINEERING (ENGR)

ENGR 1010 Introduction to Engineering Design* **4.5 – 0 – 4.5**
Recommended prerequisite: High school math (trigonometry and pre-calculus) and high school science
This course is an introduction to the engineering profession, engineering problem solving and engineering design with an emphasis on current topics. Course material will be presented using projects and group-learning activities.

ENGR 1020 MATLAB Programming* **4.5 – 0 – 4.5**
Prerequisite (1): MATH 1420 and fluency with basic UNIX/ Windows commands, word processing software and the tools used to create PDF files
This course is a freshman engineering course that introduces students to computer programming for engineers using MATLAB. The course includes manipulation of functions that range from general math operations, string manipulation and scientific plotting to domain-specific toolboxes such as statistics, signal and image processing, efficient matrix and array computations, as well as easy creation of scientific and engineering graphics that make it particularly useful for engineering students.

ENGR 1050 Introduction to Engineering **3 – 0 – 3**
Introduction to Engineering provides the beginning engineering student with an insight into professional development, strategies for academic success, processes and models for personal development and an orientation to the engineering education system. These topics are presented with lecture and video media.

ENGR 1060 Introduction to Computer-Aided Graphics **2.5 – 6 – 4.5**
A good engineer requires knowledge of both board and computer-aided drafting. In this course, the student is introduced to both and studies such topics as lettering, orthographics, sections, dimensioning, descriptive geometry, revolutions and graphics.

ENGR 2010 Elements of Electrical Engineering I* **4.5 – 0 – 4.5**
Prerequisites (2): MATH 2411 and PHYS 211C
This course is a sophomore engineering course that introduces students to the basic elements of electrical engineering. The course is designed so that students will learn the fundamental concepts of DC and AC circuit analysis using basic concepts, basic methods and circuits to filter and amplify signals, basic methods of digital signals and accompanying mathematics associated with transformers, motors and power systems.

ENGR 2020 Engineering Statics* **4.5 – 0 – 4.5**
Prerequisites (2): MATH 2411 and PHYS 210C
This course is a sophomore engineering course that introduces students to the basic principles of statics. The course topics include an introduction to the fundamental principles of statics; strength of materials; translational and rotational equilibrium problems; moments of inertia; vector product of forces; centroids; simple structures, frames and trusses; and wedges, screws, bearings and belts.

**ENGR 1010, 1020, 2010 and 2020 are part of a partnership between MCC and the University of Nebraska–Lincoln College of Engineering for direct transfer into their engineering program.*

ENGLISH (ENGL)

Proficiency in word processing is recommended for all English writing courses.

ENGL 0950 Reading and Responding **4.5 – 0 – 4.5**
Prerequisite (1): Assessment testing
This is an interdisciplinary course designed to provide a foundation for learning by having students engage in a program of coordinated reading, writing and discussion including analyzing, questioning, summarizing and responding to various forms of media that may include paragraphs, journals, videos, magazine ads, textbooks and short novels. Vocabulary development and grammar will be addressed in the context of student writing and speaking.

ENGL 0960 Fundamentals of College Writing **6 – 0 – 6**
Prerequisite (1): Assessment testing or ENGL 0950
This course develops students' abilities to write clearly and effectively for different audiences and purposes. Instruction emphasizes the fundamentals of effective expository writing processes including invention, organization and revision with an emphasis on editing, coherence and sentence structure.

ENGL 1010 English Composition I (Level I class) **4.5 – 0 – 4.5**
Prerequisite (2): Assessment testing or ENGL 0960 and RDLS 0100 or college-level reading assessment test score
Students develop rhetorical knowledge; practice critical reading, thinking and writing; and use a writing process to draft, revise and edit texts in a variety of genres with an emphasis on thesis-driven essays.

ENGL 1020 English Composition II (Level II class) **4.5 – 0 – 4.5**
Prerequisite (2): ENGL 1010 and INFO 1001
The student further develops the skills learned in ENGL 1010 as he/she interprets, synthesizes and organizes primary and/or secondary sources of information for the purpose of composing a research report.

ENGL 1210 Applied Communications
(Level I class) 4.5 – 0 – 4.5
Prerequisite (2): Assessment testing or ENGL 0960 and RDLS 0100 or college-level reading assessment test score
This course prepares students for the communication challenges of today's workplace by surveying business and technical communication principles. Skills learned include writing clearly and concisely, collecting and organizing information and graphics, applying the writing process to a variety of workplace documents and communicating effectively, verbally and non-verbally.

ENGL 1220 Technical Writing
(Level I class) 4.5 – 0 – 4.5
Prerequisite (2): Assessment testing or ENGL 0960 and RDLS 0100 or college-level reading assessment test score
The student produces technical papers and reports demonstrating clear written expression of ideas. Important considerations include the format, organization, logic and sentence construction of reports. The student focuses on the process of writing including designing, revising and editing technical documents.

ENGL 1230 Business Writing
(Level I class) 4.5 – 0 – 4.5
Prerequisite (2): Assessment testing or ENGL 0960 and RDLS 0100 or college-level reading assessment test score
The student learns to write clear, coherent, effective business letters, memoranda and job résumés that reflect considerations of writer intent and reader response. Appropriate organization and format are stressed, as are revision and editing to produce an acceptable copy.

ENGL 1240 Oral and Written Reports
(Level II class) 4.5 – 0 – 4.5
Prerequisite (2): ENGL 1220 or ENGL 1230 and INFO 1001
The student who completes either Technical Writing or Business Writing continues to learn how to prepare and deliver reports using primary and secondary research. Integral to this course are the student's abilities to recognize problems and determine causes, propose solutions, evaluate various courses of action and present this information in written and oral reports.

ENGL 1310 Creative Writing 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1010, ENGL 1220 or ENGL 1230
The student writes fiction, poetry, drama and/or other literary forms.

ENGL 1320 Introduction to Publication 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1010
This course introduces students to processes and resources for professional publication of literary writing. Introduction to Publication places students into the complementary roles of editors and writers and guides them through two instructive publishing projects. As editors, students participate in the process of producing a college literary magazine. As writers, students employ standard writing and research techniques and their knowledge of the editorial process to prepare their own works for submission to reputable publications.

ENGL 2210 Grant Writing 4.5 – 0 – 4.5
Prerequisites (2): English Level II (ENGL 1240 strongly recommended)
This course provides students with a strong foundation in the purpose, conventions, research and writing necessary to obtain grant money. This course also emphasizes persuasive and analytical writing styles relevant to the nonprofit community. Students examine and participate in the processes used to research, generate, write and submit proposals the will ultimately lead to approval. Students engage in activities that demonstrate how to identify need within the community, evaluate existing services/projects and research. Students follow and successfully utilize the proposal and grant writing process from the initial idea through the final submission. Students review and revise several pieces throughout the course that ultimately lead to the final proposal.

ENGL 2450 Introduction to Literature 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The student explores prose, fiction, poetry and drama by authors representing a variety of cultural and ethnic backgrounds. Students will increase skills in writing about literature as an imaginative medium. (Formerly ENG 210)

ENGL 2460 Introduction to Short Stories 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The student examines the elements of the short story and the history of its development as he/she reads examples of its best practitioners.

ENGL 2470 Introduction to
Women's Literature 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
This course introduces students to writings by and about women. Students will read a variety of writings (short stories, poetry, essays, plays) while studying the social, cultural, economic and political influences that have impacted women throughout literary history. Students will respond to these writings analytically, creatively and personally.

ENGL 2480 Introduction to
Drama Literature I 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020, ENGL 1240 or THEA 2010 with instructor approval
The student examines the elements of drama, notable dramatic works and the major dramatic genres from antiquity through the 17th century. (Cross-listed as THEA 2480)

ENGL 2481 Introduction to
Drama Literature II 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020, ENGL 1240 or THEA 2010 with instructor approval
The student examines the elements of drama, notable dramatic works and the major dramatic genres from the 18th century through contemporary works. (Cross-listed as THEA 2481)

ENGL 2490 Introduction to Latin American Literature 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020
This course provides an overview of major influential Latin American writers and the contemporary and historical issues raised by their works. This can be taken as an English or a Spanish course.

ENGL 2510 American Literature I 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
American literature from 1600 to the Civil War is studied through the themes, works and writers of that period.

ENGL 2520 American Literature II 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The study of American literature continues with a study of authors from the Civil War to the present.

ENGL 2530 Ethnic Literature 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The student explores American literature, history and culture through the contributions of a variety of minority voices. The student experiences a variety of genres, novels, short stories, drama and poetry.

ENGL 2610 British Literature I 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The student surveys literature from the Celtic period through the 19th century.

ENGL 2620 British Literature II 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
The student surveys literature from the Neoclassic period through the Romantic Revolt, Victorian literature and the influence of Irish and Scottish literature concluding with literature of the 20th century.

ENGL 2900 Special Topics in Literature 4.5 – 0 – 4.5
Prerequisite (1): ENGL 1020 or ENGL 1240
Literary studies not covered by other courses may be offered, depending upon interest. Past topics have included dramatic literature, detective fiction, African-American literature and the writings of a particular author.

ENGL 2901 Special Topics in Writing 4.5 – 0 – 4.5
Prerequisite: The prerequisite may vary based on the topic of this course. For example, ENGL 1020 would be the \prerequisite for advanced composition and ENGL 1310 would be the prerequisite for both advanced poetry writing and advanced fiction writing. Instructor approval is also accepted
Advanced writing studies not covered in other English courses may be offered depending on interest. Writing may include advanced composition, advanced poetry writing or advanced fiction writing, among others.

ENGL 2910 Special Topics: GPTC 1.5 – 0 – 1.5
This course focuses on the first step in producing a play: the play reading. Students will attend 15 hours of readings and critique sessions of new plays in short play labs and longer play labs. Students will examine the dramaturgical elements of the plays (structure, world of the play, language, characters, plots), the production component outlines in the stage directions (casting, staging, tech/set design) and the discussion of the works by panelists and audience members. Students will keep a journal of their observations and responses to short play labs/play labs and will submit a short paper that synthesizes their discoveries about the types of plays being written and the challenges playwrights face in refining and, ultimately, seeing their work produced on stage.

ENGLISH-AS-A-SECOND LANGUAGE (ESLX)

ESLX 0100 English-as-a-Second Language I 6 – 0 – 6
Prerequisite: Assessment testing
This course focuses on fundamental grammatical structures and speaking and listening skills.

ESLX 0110 English-as-a-Second Language II 6 – 0 – 6
Prerequisite (1): ESLX 0100
This course, designed for high-beginning/low-intermediate ESL students, focuses on fundamental grammatical structures and provides opportunities to develop speaking and listening skills.

ESLX 0120 English-as-a-Second Language III 6 – 0 – 6
Prerequisite (1): ESLX 0110 or placement testing
This course focuses on developing functional communication, grammatical accuracy in speech, writing and vocabulary building.

ESLX 0130 English-as-a-Second Language IV 6 – 0 – 6
Prerequisite (1): ESLX 0210
This course, a continuation of ESLX 0120, reinforces and expands grammatical accuracy in speech and writing.

ESLX 0140 English-as-a-Second Language V 6 – 0 – 6
Prerequisite (1): ESLX 0130
This intermediate-level course continues to emphasize functional communication, grammatical correctness in speaking, writing and vocabulary building.

ESLX 0141 English-as-a-Second Language VI 6 – 0 – 6
Prerequisite (1): ESLX 0215 or placement testing
This advanced-level course focuses on intensive development of all basic language competence skills and expands grammatical correctness in speaking as well as writing skills.

ESLX 0142 English-as-a-Second Language VII 6 – 0 – 6
Prerequisite (1): ESLX 0141 or writing sample
This advanced course continues to focus on all basic language competency skills.

ESLX 0210 Writing Skills for ESL I 6 – 0 – 6
Prerequisite (1): ESLX 0120 or writing sample
In this introductory writing course, the low-intermediate ESL student applies his/her knowledge of basic sentence structures to the development of well-written paragraphs.

ESLX 0215 Writing Skills for ESL II 6 – 0 – 6
Prerequisite (1): ESLX 0140 or writing sample
This course helps the student develop reading skills, increase his/her vocabulary and improve his/her writing skills by applying knowledge of intermediate-level sentence structures.

ESLX 0220 Writing Skills for ESL III 6 – 0 – 6
Prerequisite (1): ESLX 0142 or writing sample
This advanced course provides intensive practice in writing American English, helps the student recognize grammatical problems, expands his/her written vocabulary and prepares for the transition to ENGL 0950 or ENGL 1010.

ESLX 0310 Conversational English I 6 – 0 – 6
Prerequisite (1): ESLX 0120 or higher
This course focuses on developing basic communication skills through listening, vocabulary development, role playing, oral presentations and class discussions.

ESLX 0311 Conversational English II 6 – 0 – 6
Prerequisite (1): ESLX 0140 or higher
This course continues to focus on reinforcing and expanding basic communication skills through video viewing, role-playing, group discussions and oral presentations. It provides opportunities for functional use of English within the context of everyday life in North American culture.

ESLX 0500 Level I Pronunciation 4.5 – 0 – 4.5
Prerequisite (1): ESLX 0110 or higher
This course provides ESL students with the opportunity to learn to distinguish English sounds aurally and to produce those sounds orally in reading and speaking to improve communication skills. Students will improve their own speech by learning English vowel and consonant sounds (segmentals). They will practice these sounds in the classroom with their classmates and instructor, in the lab with the software programs Pronunciation Power and Clear Speech Works and at home with the CD and accompanying exercises. Students will improve their listening abilities to better understand the speech of native speakers by studying common speech reductions. They will also be introduced to the stress, rhythm and intonation patterns of English speech (suprasegmentals).

ESLX 0501 Level II Pronunciation 4.5 – 0 – 4.5
Prerequisite (1): ESLX 0130 or concurrent enrollment or pass in ESLX 0500
This highly practical, advanced, self-paced, self-help course will be a continuation of ESLX 0500 Level I Pronunciation. The students will review and build upon the skills learned in ESLX 0500. While 0500 focuses on the segmentals—vowel and consonant sounds—, this course will focus on the suprasegmentals—stress in words and sentences, intonation, rhythm, syllables and problematic sounds and vocabulary from their workplace. The students will be individually assessed at the outset of the course to determine their individual needs. They will practice these patterns in the classroom with their classmates and instructor and in the lab with the software program Pronunciation in American English. The basic premise of each chapter is listen, record, stop, playback and compare. As there is a work-related component in this course, students are encouraged to bring their work-related vocabulary to practice in the classroom and Academic Resource Center.

ESLX 0950 Reading and Responding 4.5 – 0 – 4.5
Prerequisite (1): Assessment testing or ESLX 0220
This is an interdisciplinary course designed to provide a foundation for learning by having students engage in a program of coordinated reading, writing and discussion including analyzing, questioning, summarizing and responding to various forms of media that may include paragraphs, journals, videos, magazine ads, textbooks and short novels. Vocabulary development and grammar will be addressed in the context of student writing and speaking. (Cross-listed as ENGL 0950)

ENTREPRENEURSHIP (ENTR)

ENTR 1050 Introduction to Entrepreneurship 4.5 – 0 – 4.5
The student will evaluate the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The student will understand the role of entrepreneurial businesses in the United States and the impact on our national and global economy.

ENTR 2040 Entrepreneurship Feasibility Study 4.5 – 0 – 4.5
Students will assess the viability of a new venture business idea to determine if the concept is feasible for business startup and long-term growth based on strengths and skills and personal, professional and financial goals. The student will identify and analyze through basic research the present climate for their business idea by completing an industry, target market and competitive analysis. The student will assess the financial needs for startup as well as their own skills, strengths and talents to launch a successful business idea.

ENTR 2050 Marketing for the Entrepreneur **4.5 – 0 – 4.5**
The student will gain insights essential for marketing their entrepreneurial venture utilizing innovative and financially responsible marketing strategies. Students will develop an understanding of traditional and nontraditional entrepreneurial marketing strategies and prepare marketing strategies with associated tactics to launch and sustain an entrepreneurial venture.

ENTR 2055 Search Engine Marketing **2 – 0 – 2**
This course addresses how to target advertising to the right audience via the Internet using Google™. Both new students and advanced marketers will develop skills in search engine marketing techniques. Focus includes AdWords, banners, video spots, mobile and business maps and using metric results to make budget decisions and measure return on investment (ROI).

ENTR 2060 Legal Issues for the Entrepreneur **4.5 – 0 – 4.5**
The student will explore legal issues related to business entities including sole proprietorship, general partnerships, limited partnerships and corporations. Students will review contract law, articles of incorporations and the filing process, employment law (including FEPA, ADA and FMLA), personnel policies and procedures, the hiring process, job descriptions, disciplinary actions and business insurance.

ENTR 2070 Financial Topics for the Entrepreneur **4.5 – 0 – 4.5**
This is a comprehensive course covering financial situations for businesses. Financial topics will include employee benefits, retirement planning, budgeting, creation of financial statements and learning how to work with an accounting professional. Other topics will include income tax, sales and use tax, payroll tax and unemployment tax.

ENTR 2090 Entrepreneurship Business Plan **4.5 – 0 – 4.5**
Prerequisites (2): ENTR 1050 and ENTR 2040
The student will evaluate a business concept and write a sound business plan. Students will assess the strengths and weaknesses of a business concept; collect, analyze and organize market research data into a marketing plan; and prepare the financial projections for their business concept. Students will be able to identify and evaluate various resources available for funding small businesses.

ENTR 2900 Special Topics in Entrepreneurship **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other Entrepreneurship courses.

ENTR 2981 Entrepreneurship Internship **Variable**
Prerequisite (1): Instructor approval
The student applies knowledge and skills learned in Introduction to Entrepreneurship and other courses completed in the Entrepreneurship Program to assist a real small business owner or nonprofit organization with a working project. The student records the tasks performed in a notebook reviewed periodically by the owner and the faculty sponsor to assure that appropriate competencies are developed and/or reinforced. The student will make a final presentation summarizing project results and recommendations. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

FINANCE (FINA)

FINA 1100 Principles of Property and Casualty Insurance **4.5 – 0 – 4.5**
This course serves as an introduction to the field of property and casualty insurance and the needs of individuals or organizations for various categories of protection. Areas of emphasis include fire, accident, theft, property damage and liability insurance and the legal environment of insurance products. The student is also introduced to the basic concepts of product design, underwriting, pricing, marketing and claim administration. (Cross-listed as INSU 1100)

FINA 1200 Wealth-Building Fundamentals and Personal Finance **4.5 – 0 – 4.5**
This course is designed to give the student an understanding and practical applications of the theories and concepts of how to analyze and direct one's financial affair and that of his/her family.

FINA 1310 Introduction to the Financial Services Industry **3 – 0 – 3**
The fundamental functions of financial institutions are covered in this course. Topics include money, financial markets, financial institutions, the deposit and payments functions, the Federal Reserve System and other regulatory functions.

FINA 1320 Financial Calculator Applications **1 – 0 – 1**
This course teaches the skills necessary to utilize a financial calculator. Such applications include time value concepts, bond value calculations, statistical applications, interest rate computations, profit margin determinations and breakeven analysis.

FINA 2100 Introduction to Investments **4.5 – 0 – 4.5**
This course presents an introductory review of investment concepts and theory including analysis of individual investments (stocks, bonds, mutual funds, etc.), security markets and portfolio management.

FINA 2200 Investments **4.5 – 0 – 4.5**
This course presents basic investment concepts such as investment markets and transactions, investment planning and information and investment risk and return. The course also explores the environment by examining the role and scope of various investment vehicles including common stock, fixed-income securities, derivative securities and mutual funds.

FINA 2206 Fundamentals of Financial Planning I **4.5 – 0 – 4.5**
This course is the first of two courses examining the fundamentals of financial planning. In this course, students will examine the principles of financial planning (e.g., steps in the financial planning process) and tools and techniques used in the planning process and explore careers associated with financial planning.

FINA 2207 Fundamentals of Financial Planning II **4.5 – 0 – 4.5**
Prerequisite (1): FINA 2206
This course is the second of two courses examining the fundamentals of financial planning. In this course, students will explore best methods for establishing client relationships, developing and evaluating a comprehensive financial plan and utilizing critical-thinking skills relative to analytical concepts, ethics, regulations and laws.

2209 Risk Management and Insurance 4.5 – 0 – 4.5
This course analyzes financial risk and the preservation of personal assets. Course content provides an overview of the risk management process with a primary focus on various lines of insurance (life, health, disability, long-term care, homeowners, auto and liability).

FINA 2210 Financial Planning Principles **4.5 – 0 – 4.5**
This course is the first in the series of financial planning courses (Income Tax Planning, Retirement Planning and Estate Planning). Course content provides an overview of financial planning including concepts related to accumulation, preservation and transference of wealth.

FINA 2215 Asset Management **4.5 – 0 – 4.5**
This course is one of the electives (course #7) provided for those seeking certification as an Employee Benefits Specialist (CEBS). The focus of the course is an introduction to concepts, theories and laws affecting the management of financial assets. Examples applied by professionals in employee benefits will be examined.

FINA 2220 Asset/Liability Management for Financial Institutions **3 – 0 – 3**
Prerequisite (1): FINA 1310
This course introduces the student to the management and administration of financial institutions. Topics include introduction to management; asset, liability and capital management decisions; administration of lending activities; pricing of financial services; and integrative management techniques.

FINA 2230 Business Finance* **4.5 – 0 – 4.5**
Prerequisite (1): ACCT 1120
This course presents the basics of financial analysis, forecasting, operating and financial leverage, working capital, current asset management, short-term financing, time value concepts and practices, cost of capital, equity financing, dividend policy, convertible bonds, warrants and options. These areas are primarily oriented toward corporate financial management.

**It is strongly recommended that ECON 1000, ECON 1100 and FINA 2230 be taken late in the program of study.*

FINA 2240 Financial Statement Analysis **3 – 0 – 3**
Prerequisite (1): ACCT 1110
This course presents the characteristics of financial statements and procedures for analysis. It covers goals, methods and tools of analysis; analysis of profit and loss, accounts receivables, inventories and balance sheets; relationship of balance sheet accounts to sales; and projected statements of cash budgets.

FINA 2250 Investment Strategies and Portfolio Management **4.5 – 0 – 4.5**
Prerequisite (1): FINA 2200
This course presents basic investment strategies as they relate to portfolio management. Topics include establishing portfolio goals, portfolio construction (evaluating investment alternatives, etc.) and portfolio management and control (assessing risk, etc.).

FINA 2310 Income Tax Planning **4.5 – 0 – 4.5**
Prerequisite (2): FINA 2200 and FINA 2210 or instructor approval
This course acquaints the student with tax planning strategies as they relate to investment goals. Emphasis is placed on discretionary income and net worth. The student learns to evaluate specific investment decisions based on current and relevant tax implications.

FINA 2315 Retirement Plans: Basic Features **4.5 – 0 – 4.5**
This course provides a historical review of the development of private pension plans (money purchase, profit sharing, savings plans, ESOPs, 401(k) plans, IRAs, SIMPLE plans and plans for the self-employed) as well as an overview of plan objectives, design features and qualified plan legal requirements. Retirement plan design as well as participant-directed investing, investment education and distribution planning is also explored.

FINA 2316 Defined Benefit 4.5 – 0 – 4.5
The course examines the characteristics and administration of defined benefits retirement plans. It offers a discussion of the differences between defined benefit and defined contribution plans as well as the influences affecting usage of such plans. Special emphasis is given to the funding constraints of defined benefits plans, actuarial-based costing approaches and financial reporting requirements. The course covers the investment techniques, funding arrangements and termination insurance used by defined benefits plans. An examination of newer hybrid plan structures, early retirement incentive programs and executive retirement arrangements is also presented.

FINA 2320 Retirement Planning and Employee Benefits 4.5 – 0 – 4.5
Prerequisite (2): FINA 2200 and FINA 2210 or instructor approval
This course emphasizes pertinent issues faced by those preparing for retirement. Such issues include income planning, Social Security, Medicare, long-term care insurance, distributions from retirement plans, housing/residence concerns, guardianships, conservatorships, durable powers of attorney and living trusts. Employee benefits are reviewed as they relate to the retirement planning process.

FINA 2321 Compensation Concepts and Principles 4.5 – 0 – 4.5
This course is a required course for those seeking certification as an employee benefit specialist (CEBS). This course is designed to provide a framework for the strategic choices in managing compensation. This course overviews the pay model, basic compensation and the steps to developing employee compensation packages. Specifically, topics covered include compensation, performance evaluations, employee benefits, comparing the competition's pay models, union contracts, government regulations and the budget process.

FINA 2322 Human Resources and Compensation Management 4.5 – 0 – 4.5
The course examines human resources and compensation management including human resource planning, wage determination, employee benefits, total compensation concepts and noneconomic rewards, as well as institutional and economic health issues such as seniority, management rights and union security.

FINA 2330 Estate Planning 4.5 – 0 – 4.5
Prerequisites (2): FINA 2200 and FINA 221O or instructor approval
This course provides a comprehensive review of estate planning topics such as estate and gift taxes, various issues related to trusts planning and administration, property ownership issues, life insurance, private annuities, postmortem tax planning and charitable giving.

FINA 2400 Financial Counseling 4.5 – 0 – 4.5
This course explores the foundations of financial counseling including the communication and listening processes, decision making and problem solving and various strategies and tactics utilized in effective counseling relationships.

FINA 2410 Consumer Credit 4.5 – 0 – 4.5
This course reviews the most critical consumer credit issues including consumer rights, secured and unsecured debt, credit card debt, debt collection, foreclosures and repossessions, evictions, credit restructuring and bankruptcy-related issues.

FINA 2700 International Finance 4.5 – 0 – 4.5
An introduction to an analysis of international finance providing a conceptual framework within the unique financial decisions of the multinational firm can be analyzed. The student gains an understanding of decision elements of the international organization such as divergences in currencies, exchange rate issues (variations and controls), rates of inflation, tax systems, money and capital markets and political systems.

FINA 2900 Special Topics in Finance Variable
This course permits instruction in special content areas that are not appropriately treated in other finance courses.

FINA 2940 Case Analysis in Financial Planning 4.5 – 0 – 4.5
Prerequisite (1): FINA 2200, FINA 2210, FINA 2310, FINA 2320, FINA 2330 or instructor approval
This course serves as the capstone course in the Financial Planning curricula. This case-based class provides students an opportunity to demonstrate competencies in financial planning and insurance principles, income tax planning, retirement planning and estate planning.

FIRE SCIENCE TECHNOLOGY (FIST)

This program has special admission requirements. Contact Student Services for more information or to obtain a current information packet, visit www.mccneb.edu/healthcareers.

FIST 1000 Introduction to Fire Protection Principles 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
This course gives a broad understanding of the characteristics of systems analysis and of its uses and limitations in fire protection and other problem areas. This course is illustrated with case studies and models using the systems approach to fire suppression and prevention. This course is the initial and entry-level course to the entire Fire Science Program and covers a broad scope of the fundamentals of fire suppression and protection including suppression techniques, equipment, personal protection, tools and mechanical suppression devices.

FIST 1020 Chemistry and Dynamics of Fire 4 – 0 – 4
Prerequisite (1): Acceptance into Fire Science Program
This course is an introduction to the chemical nature and properties of inorganic compounds as related to the fire service. Topics include fundamental laws of chemistry, states of matter, gas laws, chemical bonding and thermodynamics with applications to various industrial processes.

FIST 1040 Principles of Property and Casualty Insurance 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
Upon completion of this course, the student will be able to apply the theory, concepts and basic understanding of insurance practices and procedures. Ares of emphasis include fire, accident, theft, property damage and liability insurance and the legal environment of insurance products. The student is also introduced to the basic concepts of product design, underwriting, pricing, marketing and claim administration skills involving suppression materials, tools, equipment, procedures, general laws and regulations. Interpersonal and teamwork skills along with appropriate written and verbal communication skills using the terminology of the occupation and the organization/industry will be stressed.

FIST 1050 Building Construction 4 – 0 – 4
Prerequisite (1): Acceptance into Fire Science Program
This course is designed to provide a basic understanding of how the construction type, alternative design and materials influence a building's reaction to fire. This course will provide recognition of relevant information about a building before a fire, as well as fire ground reading of the building that will provide the ability to assess building stability and resistance to fire and determine likely paths of fire extension. The student will become familiar with the materials and types of construction used for the various parts of buildings in this class. Building code requirements, steel, timber and masonry construction, structures of common form, lift-slab and tilt-up construction and developments in the building construction field are covered.

FIST 1060 Fire Service Professional: Health and Welfare 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
This course is devoted to firefighter health and welfare. Factors studied in-depth will include stress management, diet and exercise specific to the needs of firefighters, critical incident debriefing and other health and welfare subjects related to reduce firefighter burnout and increase firefighter life expectancies.

FIST 1070 Fire Protection Systems 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
This course is a study of structural protection systems, personnel protection and detection systems. Commercial and private fire alarm systems and direct, local and auxiliary annunciator systems are covered. This course will follow the history and evolution of these systems by visiting historic events that demand their necessity.

FIST 1080 Hydraulics and Water Supply 4 – 0 – 4
Prerequisite (1): Admission into Fire Science Program
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems.

FIST 1090 Firefighter I 15 – 0 – 15
Prerequisite (3): FIST 1080, ENGL 1010 and medical screening compliant with NFPA 1582
This course includes the information and skills to perform firefighting functions on the fire ground. Upon completion, students are eligible to take the Nebraska State Firefighter I Certification Test. This course prepares the student to meet the requirement of Firefighter I per NFPA 1001 Standard for Firefighter Professional Qualification and Hazardous Materials Awareness per NFPA 472 Standard for Responders to Hazardous Materials Incidents.

FIST 2000 Incident Command System 4 – 0 – 4
Prerequisite (1): Acceptance into Fire Science Program
This course covers the emergency management practices used during an emergency situation by responders. The structure and responsibilities of the Incident Command System, the management of facilities and typing of resources are covered in this class.

FIST 2010 Incendiary Fire Analysis and Investigation 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
This course examines the procedures and techniques for the collection, comparison and analysis of the physical evidence relative to the area of fire origin. Also studied are principles of evidence of ignition phenomenon and propagation variables; legislative, economic, psychological and sociological variables of the incendiary fire; the role of insurance and government programs; and data analysis and prediction techniques, including pattern analysis.

FIST 2020 Fire Prevention, Building Inspection and Codes 4 – 0 – 4
Prerequisite (1): Acceptance into Fire Science Program
This course is an examination and evaluation of the techniques, procedures, programs and agencies involved with fire prevention. Consideration is given to related governmental inspection and education procedures.

FIST 2050 Municipal Fire Administration 3 – 0 – 3
Prerequisite (1): Acceptance into Fire Science Program
This course will review the fire division organization, fire company organization, the company officer, personnel administration, communications, fire equipment maintenance, training, fire prevention, records and reports.

FIST 2060 Strategy and Tactics 4 – 0 – 4
Prerequisite (1): Acceptance into Fire Science Program
This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment and extinguishing agents on the fire ground. This course is designed for the entire fire service or the student that would like to enter the career field. This course focuses heavily on the decision-making process used in incident mitigation and a systems approach to safely and effectively manage an emergency scene. This class will be taught in a manner to include the roles and responsibilities of the entry-level firefighter through the incident commander and follow the U.S. Fire Administration's curriculum.

FIST 2070 Hazardous Materials 5 – 0 – 5
Prerequisite (1): Acceptance into Fire Science Program
This course provides basic fire chemistry relating to the categories of hazardous materials including problems of recognition, reactivity and health encountered by firefighters.

FIST 2090 Firefighter II 7 – 3 – 8
Prerequisites (2): FIST 2070 and all candidates must meet the medical requirements of NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments. Each candidate shall complete any physical fitness requirement for entry-level personnel as required and validated by the Medical Director.
Upon successful completion of this course, individuals shall function on emergency scenes with general supervision. Firefighter II (FFII) begins the entry-level education requirements for leading a team in emergency mitigation and/or hazardous materials response. FFII is a national curriculum and certified by the state of Nebraska. It is designed to expand the students' knowledge of ventilation, search and rescue, hazardous materials response, extrication and firefighting strategy, tactics and tasks. Advanced fire suppression operations and pre-fire planning and occupancy inspections are covered in the curriculum.

FRENCH (FREN)

FREN 1010 Beginning French I 7.5 – 0 – 7.5
Beginning French teaches basic skills: comprehension, pronunciation, speaking, listening, reading, writing and vocabulary.

FREN 1020 Beginning French II 7.5 – 0 – 7.5
Prerequisite (1): FREN 1010 or two years of high school French
A further concentration on the acquisition of basic skills of FREN 1010 is completed.

FREN 2010 Intermediate French I 4.5 – 0 – 4.5
Prerequisite (1): FREN 1020 or three years of high school French
This course reviews grammar and literary readings. Class is conducted mainly in French with emphasis on comprehension and discussion.

FREN 2020 Intermediate French II 4.5 – 0 – 4.5
Prerequisite (1): FREN 2010 or four years of high school French
In FREN 2020, the student reviews verb tenses and grammar points and is introduced to passé simple. Additionally, the student reads short works of French literature for comprehension and discussion.

FREN 2030 Intermediate French III 4.5 – 0 – 4.5
Prerequisite (1): FREN 2020
This course is an extension of FREN 2020. It continues the review of French verb tenses and grammar points as well as the reading of French literature for comprehension and discussion.

GEOGRAPHY (GEOG)

GEOG 1010 Fundamentals of Geography* **4.5 – 0 – 4.5**
College-level reading skills recommended
This course provides the student with an overview of the environmental and social concerns encompassed by the discipline of geography. Essential concepts in both cultural/human and physical geography are surveyed, and the student will acquire basic skills in the use and interpretation of maps.

> **Beneficial for all undergraduates, this course is particularly valuable for teachers and for those planning to teach geography or the social sciences.*

GEOG 1050 Introduction to Human Geography **4.5 – 0 – 4.5**
College-level reading skills recommended
This course provides the student with spatial and ecological perspectives on the human occupancy of the earth. Distinctive cultural landscapes are examined as the product of different ways of life, including particular mixes of language, religion, population dynamics, food production, economic and political organization, settlement systems, natural resource exploitation and culture history.

GEOG 1150 Introduction to Physical Geography – Weather and Climate **5 – 3 – 6**
College-level reading skills recommended
This lecture/lab course introduces the student to the ways in which the complex interplay of solar radiation, temperature, moisture, atmospheric pressure and wind produce the short-term atmospheric conditions called weather and the long-term atmospheric conditions called climate. Particular attention is given to the ways in which human life is influenced by weather and climate and to evidence of climate change, past and present.

GEOG 1160 Introduction to Physical Geography – Landforms **5 – 3 – 6**
College-level reading skills recommended
This lecture/lab course examines the physical processes that shape and reshape the face of the earth. The student is introduced to geomorphic forces that work from within the earth to create landforms and to processes that operate at the earth's surface to wear landforms away. Considerable attention is given to the fact that many of the processes that create or destroy landforms also constitute natural hazards with which human societies must contend.

GEOG 1210 Introduction to Physical Geology **5 – 3 – 6**
College-level reading skills recommended
This lecture/lab course is the study of the earth and the processes that shape it. In this course, the student learns about the materials and physical features of the earth, changes in those features and the processes that bring them about. The earth is studied as a planet, as a changing body and as our home.

GEOG 2150 World Regional Geography **4.5 – 0 – 4.5**
College-level reading skills recommended
The course is designed to expand the student's knowledge of the world beyond the borders of Nebraska. The earth is divided into a manageable number of geographical areas (regions) that are analyzed in terms of their human and physical geographies. Particular attention is given to distinctions between the wealthy, technologically advanced regions of the earth and those areas that remain less developed. Processes of globalization that increasingly link regions to one another will be explored.

GEOG 2900 Special Topics in Geography **Variable**
This course permits instruction in special content areas that are not included in other Geography courses.

GERMAN (GERM)

GERM 1010 Elementary German I **7.5 – 0 – 7.5**
This is the first of a two-course introductory sequence in which the student begins to learn the fundamentals of German. Stress is upon comprehension, pronunciation, speaking, listening, reading, writing and vocabulary.

GERM 1020 Elementary German II **7.5 – 0 – 7.5**
Prerequisite (1): GERM 1010 or its equivalent
The student continues to focus on the skills begun in GERM 1010.

GERM 2900 Special Topics in German **Variable**
Prerequisite (1): Instructor approval
Topics not normally addressed by other courses in the German curriculum may be offered in GERM 2900. Examples include advanced grammar, intensive conversation and pronunciation and contemporary culture.

GRAPHIC COMMUNICATION ARTS AND DESIGN (GCAD)

GCAD 1010 Creativity: Concept Development **3.5 – 3 – 4.5**
This course provides a basic introduction to classic tools used in graphic design. Emphasis is placed on creative problem solving through the use of thumbnail and rough sketches.

GCAD 1020 Introduction to Computer Methods **3.5 – 3 – 4.5**
This course introduces the student to basic graphic design computer skills using bitmap and vector software determined by professionals in the industry to implement design solutions. The course also includes computer operations, scanning and printing.

GCAD 1110 Typography I **3.5 – 3 – 4.5**
Prerequisites (2): GCAD 1010 and GCAD 1020 or EIMA 1100 and EIMA 1110
This course introduces the student to type history, terminology, specifications and design as applied to print. Students apply fundamental criteria in selecting and using typefaces and fonts.

GCAD 1120 Layout I **3.5 – 3 – 4.5**
Prerequisites (2): GCAD 1110 and GCAD 1520
This course combines the use of type and images to create one-page, multi-panel and multi-page layouts.

GCAD 1210 History of Graphic Design **3.5 – 3 – 4.5**
Prerequisite (1): GCAD 1110
This course covers the history of graphic design from the invention of writing to the digital age.

GCAD 1500 Print Overview **4.5 – 0 – 4.5**
This course is an overview of the printing industry and its relevance to the graphic designer. Printing processes are explored along with the limitations of each process. Pre-press, press and post-press operations are discussed. Students will also learn about paper and its specifications. Students will learn how to make folding dummies. Tours of local printing companies are an important part of this class.

GCAD 1520 Desktop Publishing Basics – InDesign **3.5 – 3 – 4.5**
The student learns the basic operation of Adobe InDesign publishing software. The student works through a series of projects starting with simple functions and working up to complex tasks using the tools and features of InDesign. Word processing for desktop publishing and creating graphics files for printing purposes is also covered.

GCAD 2050 Package Design **3.5 – 3 – 4.5**
Prerequisite (1): GCAD 1120
This course presents problems in designing packages and in the 3-D graphic design process. Material selection, fabrication and structural design are points of emphasis.

GCAD 2060 Illustration **3.5 – 3 – 4.5**
Prerequisites (2): ARTS 1020 and GCAD 1020
This course covers problems and techniques relating to technical and pictorial illustration with emphasis on media variety.

GCAD 2110 Typography II **3.5 – 3 – 4.5**
Prerequisite (1): GCAD 1110
This course explores typographic concepts that integrate advanced design philosophies. Students will examine type as both an analytical and structured medium, as well as a metaphorical element.

GCAD 2120 Layout II **3.5 – 3 – 4.5**
Prerequisite (1): GCAD 1120
This course is a continuation of GCAD 1120. The student creates original concepts for print and web with text and imagery. Art direction, concept development and print production are integral to the course.

GCAD 2210 Graphic Design I **3.5 – 3 – 4.5**
Prerequisites (2): GCAD 1120 and GCAD 1210; GCAD 1210 may be taken concurrently with this course
This course is an introduction to design and visual communications with graphic concepts and solutions. Emphasis is on symbolism, visual communication and language skills for graphic design.

GCAD 2220 Graphic Design II **3.5 – 3 – 4.5**
Prerequisite (1): GCAD 2210
This is a continuation of GCAD 2210 with emphasis on information design and its application.

GCAD 2230 Graphic Design III **5 – 3 – 6**
Prerequisite (1): GCAD 2220
This course is the continuation of GCAD 2220 with emphasis on designing for identity. The final product is a comprehensive portfolio.

GCAD 2900 Special Topics in Graphic Communication Arts **Variable**
Prerequisite (1): Instructor approval
This course provides instruction in special content areas not included in other Graphic Communication Arts and Design courses.

GCAD 2981 Internship **0 – 13.5 – 4.5**
Prerequisite or co-requisite (2): GCAD 2220 and instructor approval
This course consists of on-the-job experience at an approved worksite under the direct supervision of a professional who has a degree in graphic design. The student spends a minimum of 15 hours per week working with professionals. Practical knowledge and skills gained in the classroom are applied in the work setting. Other experiences include attending staff meetings and becoming familiar with client communications, deadlines and budgets. The student may work closely with designers or be given independent projects to complete. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

HEALTH (HLTH)

HLTH 1000 Cardiopulmonary Resuscitation 1 – 0 – 1
This course will teach the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest and foreign-body airway obstruction (choking). The student will learn to recognize heart attack and stroke symptoms in adults and breathing difficulty in children. This course teaches the skills needed to respond to the emergencies identified. The participant will learn the skills of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HLTH 1005 CPR Refresher 0.5 – 0 – 0.5
Prerequisite (1): Current healthcare provider card
This course will review how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest and foreign-body airway obstruction (choking). The student will review how to recognize heart attack and stroke symptoms in adults and breathing difficulty in children. This course teaches the skills needed to respond to the emergencies identified. The participant will review the skills of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HLTH 1010 Heartsaver First Aid with CPR and AED
The Heartsaver First Aid course teaches rescuers to effectively identify and treat adult emergencies in the critical first minutes of injury or illness until emergency medical services personnel arrive. The course provides basic training solutions for first aid, adult CPR and AED actions.

HLTH 1020 First Responder Course 4 – 0 – 4
Prerequisite (1): HLTH 1000
This course is designed to instruct a student to the level of first responder who serves as a vital link in the chain of the healthcare team. This curriculum includes skills necessary for the individual to provide emergency medical care with a limited amount of equipment. Successful completion of the program will allow the student to sit for the certifying exam.

HLTH 1050 Nutrition in the Life Cycle 4.5 – 0 – 4.5
Prerequisite (1): BIOS 1310 or BIOS 2310
Nutrition represents an important health concern throughout the life cycle. This course includes human nutrition, introduction to therapeutic and modified diets, nutrition in healthcare through the life cycle and drug-nutrient interactions, nutritional assessment and analysis. This course also covers gastrointestinal, cardiovascular, respiratory and endocrine systems as related to medical nutrition therapy. This is a transferable course.

HLTH 1100 EMT – Basic 8 – 5 – 9.5
Prerequisites (3): Must be 18 years of age, must have high school diploma or GED and must provide proof of current CPR certification for the professional rescuer or healthcare provider
The Emergency Medical Technician course provides an introduction to emergency medical care. Modules of training include medical-legal, roles and responsibilities of the EMT, documentation and communication, human body, medical terminology, lifting and moving, airway management basic and advanced, patient assessment, medical and trauma, medical emergencies, treatment and use of assisted medications and IV maintenance, bleeding control and shock, trauma emergencies, use of immobilization devices, obstetrical emergencies, childbirth, pediatrics and children emergencies, ambulance operations, hazardous materials, mass casualty and triage.

HLTH 1105 EMT Refresher 3 – 0 – 3
Prerequisite (1): EMT certificate
This course is designed to review the safety, well-being and medical and legal issues surrounding the EMT. Topics for review include basic and advanced airway techniques; medical and trauma assessment; signs, symptoms, treatment and pharmacology associated with EMT scope of practice; trauma injuries and care of obstetric and pediatric patients.

HLTH 1110 Intermediate Part 1 of 3 10 – 6 – 12
This course is part one in a sequence of three courses in the intermediate program that must be completed consecutively. This course provides the intermediate's role and the unique aspects of the profession such as an overview of EMS systems, the importance of personal well-being and introduction to ethics and medical/legal issues. The module also provides the understanding of general principles of anatomy and physiology, pharmacology, medication administration, intravenous access, airway management basic and advanced, patient assessment and introduction to respiratory emergencies and management.

HLTH 1112 Intermediate Part 2 of 3 10 – 6 – 12
Prerequisite (1): HLTH 1110
This course is part two in a sequence of three courses. This course provides an introduction to cardiac, neurological endocrine, urological and lymphatic emergencies. This course will provide the understanding of anatomy and physiology and signs, symptoms and medical care of the above mentioned medical emergencies. In conjunction with this course, the student will also be required to complete HLTH 1113.

HLTH 1113 Intermediate Clinical, Part 2 **0 – 10.5 – 3.5**

Prerequisite (1): HLTH 1110
Co-requisite (1): HLTH 1112
The clinical component of the intermediate program allows students to synthesize cognitive and psychomotor skills. The clinical integrates and reinforces the didactic and skills laboratory component of the intermediate curriculum. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

HLTH 1114 Intermediate Part 3 of 3 **10 – 6 – 12**

Prerequisites (2): HLTH 1112 and HLTH 1113
Co-requisite (1): HLTH 1115
This course provides an introduction to ambulance operations, rescue operations and extrication, mass casualty incidence and crime scene awareness. In conjunction with this course, the student must successfully complete HLTH 1115.

HLTH 1115 Intermediate Clinical, Part 3 **0 – 10.5 – 3.5**

Prerequisites (2): HLTH 1112 and HLTH 1113
Co-requisite (1): HLTH 1114
This clinical component allows the student to synthesize cognitive and psychomotor skills. This course also integrates and reinforces the didactic and skills laboratory component of the intermediate curriculum. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

HLTH 1116 Intermediate to Paramedic **10 – 6 – 12**

Prerequisites (3): HLTH 1114, HLTH 1115 and HLTH 1420
Co-requisite (1): HLTH 1117
This course enables the intermediate student to meet the criteria needed to become a paramedic. The course provides the additional knowledge and skills required to function at the paramedic level. This course provides the continued anatomy and physiology required in the DOT curriculum for paramedics. An additional clinical/field co-requisite component must also be successfully completed in order to sit for the paramedic certification exam.

HLTH 1117 Intermediate to Paramedic Clinical **0 – 6 – 2**

Prerequisites (3): HLTH 1114, HLTH 1115 and HLTH 1420
Co-requisite (1): HLTH 1116
This component of the paramedic program allows the student to synthesize cognitive and psychomotor skills. This course is the co-requisite for HLTH 1116 and integrates and reinforces the didactic and skills laboratory component of the paramedic curriculum. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

HLTH 1120 EMT – Paramedic Part 1 of 4* **10 – 6 – 12**

Prerequisites (7): Must be 18 years of age, must have high school diploma or GED, must have current EMT-B certification, current CPR certification for Healthcare Provider or Professional Rescuer, application on file for entrance into paramedic, must have own transportation
Co-requisite (1): BIOS 1310 or provide proof of equivalent
This is the first course in a sequence of four courses that provides an introduction to emergency medical care. Topics covered include knowledge of EMS systems, roles, responsibility and well-being of paramedic, medical, legal and ethical issues, anatomy and physiology, pathophysiology of the normal cell, respiratory system and acid base balance, general principles of pharmacology, IV access and medication administration, airway management and ventilation, therapeutic communication, patient assessment, communication and documentation and understanding of respiratory emergencies.

HLTH 1122 Paramedic Part 2 of 4* **10 – 6 – 12**

Prerequisite (1): HLTH 1120
Co-requisite (1): HLTH 1123
This course is part two in a sequence of four courses in the Paramedic Program that must be completed consecutively. This course provides an introduction to medical emergencies. Modules provide the understanding of anatomy and physiology, signs and symptoms and medical care of the cardiac, neurological, endocrine, gastrointestinal, allergies and anaphylaxis and urological systems.

HLTH 1123 Paramedic Clinical/Field Part 1 of 3* **0 – 20 – 6.5**

Prerequisite (1): HLTH 1120
Co-requisite (1): HLTH 1122
The clinical/field component of the Paramedic Program allows the student to synthesize cognitive and psychomotor skills. The co-requisite, HTLH 1122, integrates and reinforces the didactic and skills laboratory component of the paramedic curriculum. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

HLTH 1124 Paramedic Part 3 of 4* **10 – 6 – 12**

Prerequisites (3): HLTH 1120, HLTH 1122 and HLTH 1123
Co-requisite (1): HLTH 1125
This course is part three in a sequence of four courses in the Paramedic Program that must be completed consecutively. This course provides an introduction to hematological, environmental, toxicological, behavioral, trauma, obstetrical, pediatrics, geriatric emergencies, hazardous materials and weapons of mass destruction. Modules provide the understanding of anatomy and physiology and signs, symptoms and medical care of the above mentioned emergencies.

HLTH 1125 Paramedic Clinical/Field Part 2 of 3* 0 – 20 – 6.5

Prerequisites (3): HLTH 1120, HLTH 1122 and HLTH 1123
Co-requisite (1): HLTH 1124

The clinical/field component of the Paramedic Program allows the student to synthesize cognitive and psychomotor skills. This course is the clinical/field co-requisite of HLTH 1124. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

HLTH 1126 Paramedic Part 4 of 4* 10 – 6 – 12

Prerequisite (1): HLTH 1125
Co-requisite (1): HLTH 1127

This course is part four in a sequence of four courses in the Paramedic Program that must be completed consecutively. This course provides an introduction to ambulance operations, rescue operations and extrication, mass casualty incidence and crime scene awareness.

HLTH 1127 Paramedic Clinical/Field Part 3 of 3* 0 – 21 – 7

Prerequisites (2): HLTH 1124 and HLTH 1125
Co-requisite (1): HLTH 1126

The clinical/field component of the Paramedic Program allows the student to synthesize cognitive and psychomotor skills. This course is the clinical/field co-requisite of HLTH 1126. The student will follow sound educational principles that will be logically sequenced to proceed from simple to complex tasks being closely supervised and evaluated by experienced preceptors.

**This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet or visit www.mccneb.edu/healthcareers.*

HLTH 1128 Extended Clinical/Field Rotation 0 – 6 – 2

Prerequisites (2): HLTH 1126 and HLTH 1127

This elective clinical/field component of the Paramedic Program allows the student to develop a level of mastery in cognitive and psychomotor skills. It integrates and reinforces the didactic and skills laboratory component of the paramedic curriculum with an emphasis on critical thinking and team leadership. The student will follow sound educational principles, logically sequenced, proceeding from simple to complex tasks while closely supervised and evaluated by experienced preceptors. This course may not be taken as an additional elective for the student who has otherwise not been able to complete the Department of Transportation clinical/field requirements in HLTH 1127. HLTH 1128 is *not* necessary for degree completion.

HLTH 1129 Advanced Provider Renewal 4.5 – 0 – 4.5

Prerequisite (1): Completion of an Emergency Medical Technician, Emergency Medical Technician Intermediate or Emergency Medical Technician Paramedic course or certification at state or national registry level

This is a course review to maintain a provider's competence in knowledge and skill performance. Designed to meet the hours required to renew certification, it provides remediation to gain certification, as well as to provide 24 hours of continuing education for the EMT-B. This course meets the standards of the National Registry of Emergency Medical Technician Renewal requirements.

HLTH 1130 Emergency Medical Service Instructor 6 – 0 – 6

Prerequisites (2): National Registered EMS Provider and Healthcare Provider Instructor

This course is designed for the Emergency Medical Services Provider to become an educator that will understand how the adult students learn and to provide learning opportunities that support their intellectual, professional and personal development.

HLTH 1131 Critical Care Paramedic 6.5 – 1.5 – 7

Prerequisite (1): Current certification as a paramedic

This course is designed to give the paramedic increased knowledge and skills to manage the critically injured/ill patient while being transported between healthcare facilities by Critical Care Transport Systems.

HLTH 1200 Long-Term Care/ Certified Nursing Assistant 5 – 4.5 – 6.5

The course is designed to meet the Nebraska Health and Human Services System training requirements for nursing assistant certification and employment in long-term care facilities. The course combines classroom lecture, laboratory application and clinical experience for development of basic skills needed to care for the elderly. Course content will focus on teaching the nursing assistant to provide safe, effective and caring services to the elderly or chronically ill patient of any age in a long-term care facility.

HLTH 1210 LPN – Certified LPN-C 5 – 2.1 – 6

Prerequisites (3): Current LPN license in Nebraska or compact state, completion of pharmacology entrance exam with a minimum score of 76 percent and submission of an application

This course is designed to prepare the licensed practical nurse (LPN) to perform those duties consistent with the expanded scope of practice as outlined in Title 172, Chapter 102. Upon successful completion of this course, the LPN will be eligible to take the Nebraska State LPN-Certification examination.

HLTH 1300 Medication Aide 5 – 0 – 5
This course is designed to prepare the student to meet the requirements of the Nebraska Medication Aide Act. The course curriculum includes information regarding medication administration, pharmacology, state rules and regulations, classification of drugs and documentation of drug administration. The course focuses on the responsibilities of the medication aide in an assisted living facility and/or a skilled care nursing facility. Upon successful completion of this course, the student will be eligible to take the Nebraska state administered written examination. After successful completion of the state exam and completion of the state application process, the student's name will be placed on the medication aide registry with the Nebraska Department of Health and Human Services Regulation and Licensure credentialing division.

HLTH 1400 Advanced Medical Life Support 2 – 0 – 2
This course is an in-depth study of medical emergencies for the adult patient. The provider course emphasizes a pragmatic approach and systematic format to patient care. This course is designed to combine interactive case study-based lectures with hands-on physical assessment of patients. This course is particularly valuable for any healthcare provider. Previous health training is strongly encouraged prior to taking this course.

HLTH 1410 Pre-Hospital Trauma Life Support 2 – 0 – 2
This course is designed to provide the practicing pre-hospital care provider with a specific body of knowledge related to the pre-hospital assessment and care of the trauma patient. It is stressed that this is a continuing education program and contains information that may be a review for some or all participants. The uniqueness of this program rests not with an entirely new body of knowledge but instead with advances in pre-hospital trauma intervention techniques. Students will use new combinations and applications of existing skills and knowledge to better their patients' chances at surviving traumatic events.

HLTH 1420 Advanced Cardiac Life Support 2 – 0 – 2
Prerequisites (2): CPR for the healthcare provider and must be an advanced healthcare provider
This course will teach the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, stroke and hypothermic adult patients. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy. The student will learn to recognize the signs and symptoms along with the management algorithm associated with the individual life-threatening rhythm. The advanced provider will learn and practice the various forms of advanced airway management along with a review of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HLTH 1421 Advanced CLS Renewal 1 – 0 – 1
Prerequisites (2): CPR for the healthcare provider and must be an advanced healthcare provider
This course will review with the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, stroke and hypothermic adult patients. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy. The student will review the signs and symptoms along with the management algorithm associated with the individual life-threatening rhythm. The advanced provider will review and practice the various forms of advanced airway management along with a review of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HLTH 1430 Pediatric Advanced Life Support 2 – 0 – 2
Prerequisite (1): CPR for the healthcare provider and must be an advanced healthcare provider
This course will teach the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest and respiratory arrest in the pediatric patient. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy in the pediatric mode. The student will learn the signs and symptoms along with the management algorithm associated with pediatric life-threatening rhythms. The advanced provider will learn and practice the various forms of advanced airway management along with a review of CPR for victims of all pediatric patients (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HLTH 1431 Advanced PALS Renewal 1 – 0 – 1
Prerequisite (1): Current PALS provider
This course will review with the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, stroke and hypothermic adult patients. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy. The student will review the signs and symptoms along with the management algorithm associated with the individual life-threatening rhythm. The advanced provider will review and practice the various forms of advanced airway management along with a review of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED) and relief of foreign-body airway obstruction (FBAO).

HEALTH INFORMATION MANAGEMENT SYSTEMS (HIMS)

HIMS 1110 Introduction to Health Management **4.5 – 0 – 4.5**

This course provides an overview of the healthcare field. Topics include healthcare delivery systems, history of healthcare, careers in healthcare, personal qualities of healthcare workers, principles of teamwork, time management, human growth and development, cultural diversity, safety issues and computer technology in healthcare settings. The components of healthcare facilities, including the governing boards, the administration and the professional/medical staff, will be covered. Strategies for student success in HIMS will be explored. Current issues in healthcare will be addressed in order to enrich the student's understanding and breadth of knowledge of the U.S. healthcare system and the roles and functions of various healthcare professionals.

HIMS 1120 Medical Terminology I **4.5 – 0 – 4.5**

This course assists the student in establishing a solid foundation of medical terminology and abbreviations. Prefixes, suffixes and word roots used in the language of medicine are introduced. Emphasis is placed on understanding the medical vocabulary as it applies to the anatomy, physiology and pathology of the human body. The functioning of the body systems, clinical/surgical procedures and therapies are studied. Normal, pathological, clinical and laboratory considerations are examined in order to best prepare the student for entrance into the healthcare professions. Emphasis is also placed on correct spelling and pronunciation.

HIMS 1130 Medical Terminology II **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1120

This course is a continuation of HIMS 1120. Additional body systems, specialty medical areas, clinical procedures, laboratory tests, medical terms and abbreviations are presented. Practical applications with case reports, operative and diagnostic tests and laboratory and x-ray reports are studied. Upon completion, students should be able to pronounce, spell and define a wide array of medical terms related to the human body.

HIMS 1150 Introduction to Medical Law and Ethics **4.5 – 0 – 4.5**

This course gives students a foundation into the federal and state laws of the medical profession and ethical issues associated with working in a healthcare setting. HIPAA regulations are explored in detail. Topics include professional, social and interpersonal healthcare issues. Coverage also includes identification of measures to promote confidentiality as major changes in electronic health record (EHR) technology occur. Investigation of techniques to maintain office safety as well as the safety and confidentiality of patients and medical records is also included.

HIMS 1180 Disease Processes **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1130

This course is an introduction to the fundamentals of human disease processes. The student gains knowledge in the study of the nature and description of disease, the study of etiology, signs and symptoms, diagnostic evaluation procedures, complications, treatment, management, prognosis and prevention of disease. The coverage of diseases is organized by major body systems. Bacteriology as related to health, immunology and infectious diseases is also explored. The student applies the knowledge learned and utilizes critical-thinking and problem-solving skills through the utilization of case studies and team activities.

HIMS 1210 Medical Office Communications **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1120

This course provides the student with basic information and guidelines for style, grammar and specific medical transcription mechanics. Topics include career role and responsibilities, transcription tools and guidelines, medical records and reports, correspondence and business documents. Specific emphasis is placed on punctuation and capitalization; numbers, figures, dosages and medical abbreviations; proofreading and quality assurance; utilization of reference materials; and word forms.

HIMS 1212 Microsoft® Word for Medical Office **4.5 – 0 – 4.5**

Prerequisite (1): INFO 1001

This course is designed to explore the features of Microsoft Word to create, design and produce professional documents commonly used in a medical office. Emphasis is placed upon character, paragraph and document formatting. The student explores features such as tables, columns, labels, envelopes, mail merge, outlines, styles, borders, shading, AutoFormat, AutoCorrect, macros and templates. The student learns to enhance the visual display and clarity of documents by using various customizing and enhancement features. In addition, coverage includes working with multiple documents, utilizing basic file management techniques and inserting graphic elements.

HIMS 1220 Health Data Concepts and Management **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1110

This course focuses on the origin, uses, content and format of healthcare data including both paper and electronic health records. The regulations and standards that apply to healthcare organizations, the reimbursement methodologies used, informatics in healthcare, clinical classifications and terminologies and healthcare databases will be explored. It includes issues in accreditation, certification and licensure standards applicable to healthcare data; methods of assuring that standards are met; qualitative and quantitative data analysis; resources utilized by HIM professionals; numbering, filing and indexing systems; and record retention policies, procedures and organization.

HIMS 1310 Introduction to Anatomy and Physiology **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1130

This course focuses on the human body as a living, functioning organism. The course is designed to explore important concepts about human anatomy and physiology. The student learns how cells, tissues, organs and body systems function together to carry on complex activities. All major body systems, their interaction with other structures and systems and their role in the human organism are emphasized.

HIMS 1410 Introduction to Insurance **3 – 0 – 3**

Prerequisite (1): HIMS 1120

This course is an introduction to health insurance and reimbursement. The student will be introduced to the health insurance field, managed healthcare and legal and regulatory issues as well as reimbursement methodologies. The student learns why coding is imperative for proper reimbursement from insurance companies, as well as why medical necessity is imperative for proper reimbursement. Various types of private and governmental health, disability and liability insurance are explored in detail while focusing on claim form instruction, billing and collection practices and reimbursement guidelines, including the audit and appeals process. The student completes HCFA claim forms and applies basic Medicare and Medicaid rules, commercial insurance regulations and regulations of workers' compensation claims.

HIMS 2110 Principles of Management for Healthcare **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1110

This course focuses on acquainting the healthcare practitioner with management and supervision concepts essential to the understanding of the organizational environment within the healthcare field. Topics include management concepts; leadership and supervision; delegation and communication; financial management; planning, decision making and organizing; employment law; human resources management (staffing, performance evaluation, employee retention, training and development); policies and procedures; compliance regulations; adaptation, motivation and conflict management; and strategic management.

HIMS 2150 Pharmacology I **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1130

This course provides the student with a basic understanding of pharmacological concepts emphasizing drug law, routes of administration, basic pharmacokinetics and the specific pharmacology of drugs commonly used in the healthcare field. The student gains a framework of knowledge to help recognize drug names, drug classifications and drug schedules and categories; understand drug actions and the rationale for treatment; and understand systematic effects and side effects as well as contraindications of drugs. Current healthcare issues relating to pharmacology and drugs, drug regulation and approval and legal and ethical issues of medication are also covered.

HIMS 2160 Pharmacology II **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 2150

This course, a continuation of HIMS 2150, includes the study of pharmacological concepts and practices and the action of drugs on physiological and pathological processes. It continues the study of the classifications of drugs, their uses, mechanism of action, systematic effects, adverse effects and contradictions. Specific analysis of drugs commonly used in major body systems, using biochemical and physiological concepts, will be carried out. The student gains understanding of pharmacological concepts in the nervous, cardiovascular, immune, respiratory, digestive, renal, endocrine, reproductive, musculoskeletal, integumentary and special senses systems. Current health issues relating to pharmacology and drugs will also be discussed.

HIMS 2220 Medical Transcription I **4.5 – 0 – 4.5**

Prerequisites (3): HIMS 1210, HIMS 1212 and HIMS 1130

This course provides fundamental instruction in transcribing medical reports from authentic dictated material using word processing software. The student prepares the following medical reports: history and physical, radiology, operative, pathology, discharge summary, autopsy, request for consultation, death summary, HPIP and SOAP notes. Formatting and medical office writing styles are explored in detail.

HIMS 2230 Medical Transcription II **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 2220

This course builds on the foundation provided in the beginning medical transcription course and bridges the gap between typically easy-to-understand dictation to the more difficult, often indistinct or ethnic dictation, heard in the medical office environment. Emphasis is placed on office-style dictation of a variety of medical reports. Live dictation is used extensively in this course.

HIMS 2400 Introduction to Coding and Billing **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 1130

This course introduces the student to basic coding procedures and insurance claim forms used in medical offices and hospitals. This course is designed to broaden coding knowledge and concepts but not to gain employment as a coder. The student gains basic knowledge of the ICD-9-CM, NCPCS and CPT classification systems to code diagnoses, conditions and procedures.

HIMS 2420 Coding and Billing I **4.5 – 0 – 4.5**

Prerequisites (2): HIMS 1130 and HIMS 1410

This course provides the student with a comprehensive understanding of the International Classification of Disease (ICD-9-CM) coding system. The student learns the guidelines and terminology for correctly coding diagnoses in a physician office, hospital, home healthcare agency or other healthcare facility. Challenging practice drills test the student's coding skills in a variety of realistic healthcare settings using real-life patient health records.

HIMS 2430 Coding and Billing II **4.5 – 0 – 4.5**

Prerequisite (1): HIMS 2420

A continuation of Coding and Billing I, this course provides the student with in-depth coverage of procedural coding utilizing the HCPCS coding system composed of Current Procedure Terminology (CPT) and national codes.
The course includes detailed application of the CPT classification system for inpatient and outpatient services. Emphasis includes evaluation, management and surgery codes, as well as the use of modifiers and global services. Utilizing case studies, the student applies coding and billing principles through the use of exercises and patient records. Prospective payment in ambulatory and outpatient services is examined, and the implications of coding are explored.

HIMS 2910 CPC Exam Preparation **8 – 0 – 8**

This review course is designed for coders who are interested in taking the American Academy of Professional Coders Certification Examination.
The student gains an in-depth look at the medical coding process by applying coding guidelines for hospital, outpatient and physician practice services.
Guidelines include ICD-9-CM, CPT and HCPCS coding methodologies. A pass/fail grade will be issued. Upon completion of this course, a date will be set for the student to take the five-hour CPC examination. To maintain accreditation as a certified professional coder, the American Academy of Professional Coders requires completion of 18 continuing education units (CEUs) annually. The CPC exam may be re-taken yearly in lieu of submission of CEU credits for that year. A passing score must be obtained to fulfill the CEU requirement. All exams are required to be taken prior to the renewal date.

HIMS 2920 CPC-H Review **4.5 – 0 – 4.5**

Prerequisite (1): Instructor approval

This review course is designed for coders who are interested in taking the American Academy of Professional Coders Certification-Hospital examination (CPC-H). The student gains an in-depth look at the medical coding process by applying coding guidelines for hospital, outpatient and physician practice services. Guidelines include ICD-9-CM, CPT and HCPCS coding methodologies. A pass/fail grade will be issued. Upon completion of this course, a date will be set for the student to take the 5.5-hour CPC-H examination. To maintain accreditation as a CPC-H, the American Academy of Professional Coders (AAPC) requires completion of 36 continuing education units (CEUs) every two years. To maintain double-core certification (CPC, CPC-H), the AAPC requires 48 CEUs every two years. The CPC-H exam may be re-taken yearly in lieu of submission of CEU credits for that year. A passing score must be obtained to fulfill the CEU requirement. All exams are required to be taken prior to the renewal date.

HIMS 2930 RMT Exam Preparatory Course **4.5 – 0 – 4.5**

This review course is designed for recent graduates of medical transcription education programs, medical transcriptionists with fewer than two years experience in acute care and medical transcriptionists practicing in single-specialty, clinic, radiology and pathology areas who are interested in taking the Registered Medical Transcriptionist (RMT) examination. The student gains an in-depth review of the core knowledge and skills necessary to practice medical transcription effectively in today's healthcare environment. This course is ideal for a level one transcriptionist as defined in the medical transcriptionist job descriptions by AHDI (found on AHDI's web site). A pass/fail grade will be issued. Upon completion of this course, a date will be set for the student to take the 4-hour RMT examination.

HIMS 2980 Medical Office Applications **4.5 – 0 – 4.5**

Prerequisite (1): Instructor approval

This capstone course provides the student with the opportunity to develop medical office management skills through individual and collaborative learning experiences. Content areas include managing electronic health records (EHR), patient registration, appointment scheduling, procedure posting, insurance billing, payment posting, patient billings, report generation, data analysis and manipulation, preparation of various communications and maintenance of patient records. This course integrates all of the competencies obtained throughout the program. Utilizing health information, patient data, coding and billing principles and knowledge of healthcare reimbursement and regulatory standards to legally and ethically process healthcare claims, this course enables the student to obtain a working knowledge of EHR management software.

HIMS 2981 Internship **0 – 12 – 4**

Prerequisites (1): Instructor approval

The student internship program places the student in a working and learning environment to receive on-the-job training in a particular field of study before graduation. To develop an internship to meet his/her academic and career goals, the student must work with the faculty internship coordinator to secure a job in a related field. The student prepares a portfolio based on the successful completion of the HIMS Program. Based on state guidelines, students must complete 40 hours of work for each credit hour. For the HIMS Program, the student completes 160 hours of work in this course.

HEATING, AIR CONDITIONING AND REFRIGERATION (HVAC)

HVAC 1000 Refrigeration Electrical Theory and Application 5 – 3 – 6

This course consists of lectures, discussions and demonstrations in the general area of electrical theory and practice used in HVAC systems. A general study is made of electron theory as it relates to the electrical circuit. Various circuits, resistance capacitance, symbols and ladder diagrams are covered. Laboratory experiments are conducted to provide understanding of electrical theory. Great emphasis is placed upon safety as the student is working with actual controls and voltages.

HVAC 1010 Refrigeration Service Principles and Basic Automatic Controls 5 – 3 – 6

The student is provided experience in actual refrigeration service practice. Controls, system maintenance and sub-assembly replacement are stressed. The student works out typical service problems. The fundamentals of controls, definitions, measurements, electric controls, safety controls and refrigerant controls are included.

HVAC 1020 Refrigeration Shop Practices 2 – 3 – 3

Practice is given in using tools in basic refrigeration jobs such as tube bending, flaring, swaging and soldering. The student also becomes acquainted with standard shop tools and equipment generally found in industry.

HVAC 1210 Gas Heat 2 – 3 – 3

Prerequisite (1): HVAC 1000

The student examines, services and troubleshoots various types of gas furnaces. Heating fundamentals, including combustion and heat transfer, are covered. Heating components, including spark ignition, are explained. Special attention is given to safety.

HVAC 1211 Electric Heat 2 – 3 – 3

Prerequisite (1): HVAC 1210

The student makes a comprehensive study of electric furnace wiring for residential and light commercial installations. Operating and safety controls are covered in-depth, and considerable time is given to proper care and use of test instruments, troubleshooting and safety requirements.

HVAC 1220 Oil Burners 2 – 3 – 3

Prerequisite (1): HVAC 1000

This course involves the study of high-pressure burners. Service and troubleshooting on high-pressure fuel pumps, primary controls, electrodes and transformers are covered. Special emphasis is placed on safety, combustion efficiency tests and adjustments.

HVAC 1330 Commercial Refrigeration Installation 2 – 3 – 3

Prerequisites (3): HVAC 1000, HVAC 1010 and HVAC 1020

The student installs a complete refrigeration system (low temperature/medium temperature) using hard-drawn copper tubing. The student also wires, leak checks, evacuates and charges the unit using the correct refrigerant. Upon completion of this unit, the refrigerator must run, cool and defrost according to manufacturer's specifications.

HVAC 1331 Commercial Refrigeration Service 2 – 3 – 3

Prerequisites (2): HVAC 1000 and HVAC 1010
Co-requisite (1): HVAC 1020 (must be taken at the same time or completed earlier)

Various systems are studied, and the student solves typical service problems. Refrigerant leaks are repaired, components replaced, systems evacuated and dehydrated, oil and refrigerant charge installed and systems tested and adjusted.

HVAC 1500 Air Conditioning, Domestic Refrigeration and Appliance Repair 2 – 3 – 3

Prerequisites (2): HVAC 1000 and HVAC 1010
Co-requisite (1): HVAC 1020 (must be taken at the same time or completed earlier)

This course begins with a review of the refrigerant cycle and system components. The curriculum also covers terminology used in the trade, principles of refrigeration and identification of basic system components and provides practice with tools and shop equipment found in the field. Standard procedures and safety measures are included. Self-contained air-cooled residential systems are studied and serviced. Appliance repair such as washers, dryers and microwaves are taught. Special attention is given to safety.

HVAC 1540 All Weather Systems (Conventional) 2 – 3 – 3

Prerequisite (1): HVAC 1210

The course emphasizes combination heating and cooling systems. The class/laboratory time deals primarily with natural gas heating and cooling systems. Humidification, electronic air cleaning and air filtering are also covered.

HVAC 2220 All Weather Systems (Heat Pumps) 2 – 3 – 3

Prerequisite (1): HVAC 1211

The refrigerant cycle and the reverse cycle principle, including the reversing valve, receive attention in this course. Special components and accessories used with heat pumps are covered. A considerable amount of instruction is devoted to electric controls found on heat pump systems and to the various services involved.

HVAC 2221 Installation and Service Problems **2 – 3 – 3**
Prerequisite (1): HVAC 1210
The student makes a thorough study of problems related to gas heat installation. The areas of venting, combustion air, gas piping and troubleshooting are covered. Efficiency tests are conducted in the laboratory, and special emphasis is placed on safety.

HVAC 2310 Refrigeration Certification **1.75 – .75 – 2**
This course covers the usage of EPA-approved equipment to remove, recycle and reclaim refrigerant. The student takes the EPA test with a pass/fail of 75 percent minimum.

HVAC 2320 Advanced Commercial Refrigeration **2 – 3 – 3**
Prerequisites (2): HVAC 1000 and HVAC 1010
Various types of installations are studied with emphasis on the product to be cooled, the desired temperature to be maintained and humidity conditions. Problems involving system balance and component capacity, use of heat load charts, pipe sizing tables, manufacturers' data and specification sheets are presented, along with procedures for load calculations used in commercial refrigeration. Laboratory work consists of wiring and monitoring live units.

HVAC 2400 Blueprint Reading for Air Conditioning **3 – 0 – 3**
The student learns to read and interpret service manuals covering air conditioning and heating. Duct layout on prints for various residential structures are covered.

HVAC 2420 Advanced Residential Air Conditioning **2 – 3 – 3**
Prerequisite (1): HVAC 2400
Heating and cooling needs of various structures are calculated using computerized calculators. Equipment selection, duct design, static pressure and airflow are also covered.

HVAC 2421 Advanced Commercial Air Conditioning **2 – 3 – 3**
Prerequisite (1): HVAC 2400
Calculations on heat loss and gain are calculated for small commercial buildings. Duct layout is covered with special emphasis on equipment selection and registers and grilles.

HVAC 2550 Air Conditioning (Commercial) **2 – 3 – 3**
Prerequisite (1): HVAC 1540
This course covers single and three-phase power. Compressors, condensers, coils, valves and controls for commercial equipment are included. Unitary, remote, water and air-cooled water tower systems are studied and serviced.

HVAC 2560 Sheet Metal Layout **2 – 3 – 3**
Sheet metal layout defines the basic fittings used in residential air conditioning and heating systems. Identification of typical hand tools, project layout, fabrication, machine operation and final assembly of 12 completed modules are required.

HVAC 2570 Automated Building Controls **2 – 3 – 3**
Prerequisite (1): INFO 1001 or instructor approval
This course introduces the student to the microprocessor and various HVAC systems and their components. Learning special commands and programming of the microprocessor controller is included.

HVAC 2900 Special Topics in HVAC **Variable**
Prerequisites (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Heating, Air Conditioning and Refrigeration Program.

HVAC 2981 Internship **0 – 15 – 3**
Prerequisites (1): Instructor approval
These are expected experiences systems identification of components systems, temperature ranges, systems cleaning, refrigeration charging operations, leak checking and repairing, customer relations, billing, evaluating performance of students and on-site inspection. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

HISTORY (HIST)

HIST 1010 U.S. History to 1877 **4.5 – 0 – 4.5**
This course is a survey of American history from discovery through and including the Civil War and reconstruction.

HIST 1020 U.S. History from 1865 to Present **4.5 – 0 – 4.5**
This course is a survey of American history from the end of the Civil War to the present.

HIST 1050 Introduction to Black History **4.5 – 0 – 4.5**
This course is a survey of the history of Black Americans from their origins in Africa to the present. Political, economic, social and cultural factors are considered, as well as the interaction between African Americans and the larger society.

HIST 1060 The History of Black Women in America **4.5 – 0 – 4.5**
This course explores the history of black women in America. Black women's roles in the home, industry and during World Wars will be covered from the colonial period to present day. Areas of contemplation will include American social movements, race relations, ethnicity, sexuality, gender, medical issues and age.

HIST 1070 Traditional and Modern China **4.5 – 0 – 4.5**
Traditional and Modern China examines the historical, cultural, political and economic aspects of China. The class starts in 1644 and ends in the present-day era. It covers the late Ming dynasty, the Qing dynasty, Eastern and Western influences causing wars and rebellions, the Republic of China, the People's Republic of China and the country's current transitional state.

HIST 1110 World Civilization from Prehistory to 1500 **4.5 – 0 – 4.5**
This course surveys the history of selected civilizations from the origins of the first human civilizations to the Renaissance. It focuses on the political, economic, social, cultural and technological contributions of these civilizations, individually and collectively, to the modern world.

HIST 1120 World Civilization from 1500 to Present **4.5 – 0 – 4.5**
This course surveys the history of selected civilizations from the Renaissance to the present. It focuses on the political, economic, social, cultural and technological contributions of these civilizations, individually and collectively, to the modern world.

HIST 2050 Modern Europe since 1815 **4.5 – 0 – 4.5**
The domestic problems and world position of Europe during the past century and a half are covered in this course. Political, economic, social, cultural and technological factors are considered, particularly with regard to their effects on the United States.

HIST 2200 Latin American History **4.5 – 0 – 4.5**
This course covers the history and culture of Latin America from ancient history to the present. Political, economic, social and cultural factors will be considered, as well as the interaction between Latin America and the larger society.

HIST 2220 U.S. Military History **4.5 – 0 – 4.5**
This course is a survey of U.S. military history from the founding days of America to the present with the special emphasis on the 20th and 21st centuries. The political, social, cultural, economic and marshal aspects of the U.S. military are examined.

HIST 2900 Special Topics in History **Variable**
Prerequisites (1): Instructor approval
This course permits instruction in special content areas not included in other history courses.

HORTICULTURE (HORT)

HORT 1000 Experience Plants **1 – 0 – 1**
This class introduces the ornamental horticulture program and discovering the importance of plants and their use in the industry along with career possibilities in the horticulture field.

HORT 1100 Introduction to Horticulture **5 – 3 – 6**
This course forms the basis for all other horticulture courses. It includes the study of structures and functions in plants; requirements for growth and production including soil and fertilizers, temperature, light, growth stimulants and retardants, water use and application; propagation; and growing problems as they relate to the production of vegetables, bedding plants, bulbs, nursery stock, potted plants and cut flowers. Hands-on laboratory experience is provided.

HORT 1110 Perennials: Culture and Identification **2.5 – 1.5 – 3**
Prerequisite (1): HORT 1100
This course includes the study of perennials in the landscape. Emphasis is placed on culture, flower/leaf, texture, color, proper location, soil and blooming period.

HORT 1111 Vegetable and Herb Gardening **2 – 3 – 3**
Prerequisite (1): HORT 1100
The culture of vegetables and culinary herbs (olericulture) is introduced in this course. Both organic and inorganic ways of growing produce are presented with a hands-on experience. Crops are presented from seedlings and transplants to pest control and harvesting.

HORT 1112 Annuals: Culture and Identification **2 – 3 – 3**
Prerequisite (1): HORT 1100
This course is a study of annual bedding plants used for color impact in containers and gardens. Identification and culture are emphasized along with propagation and appropriate use in the landscape.

HORT 1113 Turfgrass Management **2.5 – 1.5 – 3**
Prerequisite (1): HORT 1100
This course includes the laboratory and discussion of the culture and care of turf areas including residential, public and intense-use areas. Emphasis is on the propagation, establishment, identification, watering, fertilizing, insects, diseases and safe use of power tools for grasses used in Nebraska turf.

HORT 1210 Trees: Culture and Identification **2.5 – 1.5 – 3**
Prerequisite (1): HORT 1100
This course includes the study of characteristics, growth rate, care and use of deciduous trees for landscaping purposes in the Midwest. The student will follow 'right plant, right place' guidelines and be aware of insects and diseases that could be a problem for certain trees. Students learn proper use of equipment used for pruning and spraying when necessary.

HORT 1211 Evergreens and Groundcovers: Culture and Identification **2.5 – 1.5 – 3**
Prerequisite (1): HORT 1100
This course covers both herbaceous and evergreen groundcovers and where they will grow. Students will also study the broadleaf and needle evergreens with emphasis on the 'right plant, right place.' Students will learn about the correct pruning methods and tools and the right time of the year to do pruning and propagation.

HORT 1212 Shrubs:
Culture and Identification 2.5 – 1.5 – 3
Prerequisite (1): HORT 1100
This course covers the use of shrubs in the landscape that are hardy in Nebraska. Emphasis is placed on characteristics that will help in identification including leaf, flower, stems, time of bloom, size of bulb and proper environment growth. Included in this class is being aware of diseases and insects that might be a problem and then knowing pruning techniques and proper time to spray along with equipment to use.

HORT 1213 Ornamental Grass:
Culture and Identification 2.5 – 1.5 – 3
Prerequisite (1): HORT 1100
In this course, students will study how to use ornamental grasses, rushes and sedges in the landscape. Also covered are the correct environmental conditions so that placement in the landscape will be 'right plant, right place'.

HORT 1214 Fruits:
Culture and Identification 3 – 0 – 3
Prerequisite (1): HORT 1100
Culture and selection of small fruit and tree/nut crops, pollination and fruiting characteristics, cultivar selection for orchard/vineyards and pruning techniques are studied.

HORT 1215 Interiorscaping
and Houseplants 3.5 – 1.5 – 4
Prerequisite (1): HORT 1100
The identification, use and culture of tropical plants that are used in the home, office and commercial interiorscapes are covered, incorporating the latest concepts, techniques and equipment.

HORT 1300 Floral Design I 2 – 3 – 3
This course is an introduction to the art and techniques of arranging fresh flowers Emphasis is placed on floral identification and design basics to include color, texture and form.

HORT 1310 Floral Design II 2 – 3 – 3
Prerequisite (1): HORT 1300 or one year experience in design work
This is an advanced course in commercial floral arrangements for dinners, parties, receptions, weddings and funerals.

HORT 1320 Floral Design III 2 – 3 – 3
Prerequisite (1): HORT 1310
This is the capstone course for creative floral design. Fresh flowers, dried flowers, foliage and skills for special occasions are covered.

HORT 1410 Food Cultivation 1 – 6 – 3
Students will learn about food systems through cultivating a restaurant-focused vegetable garden. Emphasis will be placed on seasonal, organic and biodynamic management practices centered on consumer demand.

HORT 1650 Therapeutic Horticulture 2.5 – 1.5 – 3
This course is the study of the history of restorative gardens and the benefits provided to the people. The emphasis is placed on therapeutic benefits to people working with plants and gardens.

HORT 2120 Plant Propagation by Seeds 2 – 3 – 3
Prerequisite (2): HORT 1100 and BIOS 1410
This course covers the principles and practices of propagation of plants by means of seed. Emphasis will be placed on the classification of seed based on its morphology as well as the physiological development of seed. The techniques of commercial seed production in agronomy and horticulture based upon genetically derived cultivars and hybrids introduces students to modern plant breeding and genetic engineering. Hands-on experience with seed harvesting, handling and germinating various plant species used in the seed production industry worldwide is included.

HORT 2121 Vegetative Plant Propagation 2 – 3 – 3
Prerequisite (1): HORT 1100
It is recommended that students also complete BIOS 1410, BIOS 1420, BIOS 2410 and BIOS 2510.
This course covers the principles and practices of propagation of plants by vegetative plant structures. Emphasis will be placed on the importance of clones/cultivars that can only be maintained by vegetative means. Studying the physiological process involved in wound induced and healing response occurring in root, shoot and callus formation. The commercial methods of vegetative propagation including cuttings, grafting, budding, layering, specialized structures and micropropagation. Students have hands-on introduction to these propagation techniques as well as learn the wide range of plants that are propagated in each area. Growing environments and structures are studied for the complete production of propagated plant products.

HORT 2130 Horticulture
Business Operations 4.5 – 0 – 4.5
Prerequisite (1): 30 hours of horticulture classes
This class will study the components necessary to form a horticulture business including naming, mission statement, goals, organization, cost management, insurance, bookkeeping, taxes and profit, along with management of materials and inventory.

HORT 2216 Horticulture Diseases 3.5 – 3 – 4.5
Prerequisite (1): HORT 1100
This course is an introduction to plant diseases of economic importance to horticulture crops. Identifying characteristics of diseases, life cycles and IPM control methods are examined.

HORT 2217 Horticulture Insects 3.5 – 3 – 4.5
Prerequisite (1): HORT 1100
This course covers detection, identification and control of insects that damage ornamental plants. Identifying insect characteristics, life cycles and IPM control methods are examined.

HORT 2420 Landscape Construction 2 – 3 – 3
Prerequisite (1): HORT 1100
The details and construction of steps, walks, walls, fences, water features and structures are studied. Selection and proper use of materials and tools for the construction of these features is a major part of this course, along with proper planting of nursery stock used in landscaping.

HORT 2430 Residential Landscaping 2 – 3 – 3
Prerequisite (3): HORT 1210, HORT 1211 and HORT 1212
This course studies all areas involved in planning and drawing residential landscapes including the proper use of drafting equipment. Solving landscaping problems, selling, correct placement of proper plant material and different types of designs are covered. The student is required to submit completed designs.

HORT 2440 Advanced Landscaping 2 – 3 – 3
Prerequisite (1): HORT 2430
This course offers a supervised laboratory in which the student is required to complete landscape designs for public, commercial or industrial sites. How to plan, sell and price a complete landscape is taught along with a hands-on introduction to computerized landscaping.

HORT 2450 Computer Landscape Design 2 – 3 – 3
Prerequisite (1): HORT 2430
This course is an introduction to computer landscape design applications. Studies include computer-generated 2-D landscape plans and 3-D views of selected landscape areas, shading, colorization and perspective drawings. Practice includes using design software to estimate, bid and draft client proposals.

HORT 2520 Nursery and Garden Center Operations 3 – 0 – 3
Prerequisites (3): HORT 1100, BIOS 2410 and BIOS 2510
The operation of a nursery or garden center requires a good knowledge of woody plant production, landscape contract bidding, merchandising, marketing and garden center operations. These topics are discussed in this course along with field production of perennials, bulbs and groundcovers.

HORT 2521 Managing the Landscape 3 – 0 – 3
Prerequisites (4): HORT 1100, HORT 1210, HORT 1211 and HORT 1212 (HORT 1100 must be taken before students begin this course; however, HORT 1210, HORT 1211 and HORT 1212 can be taken concurrently)
This is the first of three classes that provides a training tract that equips students with an awareness of the relationship between horticulture, science and ecology. The students will gain an understanding of the interrelated problems associated with landscape and grounds management.

HORT 2522 Landscapes: Ecology and Sustainability 3 – 0 – 3
Prerequisites (4): HORT 1100, HORT 1210, HORT 1211 and HORT 1212 (HORT 1100 must be taken before students begin this course; however, HORT 1210, HORT 1211 and HORT 1212 can be taken concurrently)
This class is another of the three capstone type classes. This course will cover the study of ecosystems, distribution patterns and functions of ecology and sustainability in both residential and commercial landscaping.

HORT 2523 Landscapes: Environmental 3 – 0 – 3
Prerequisites (4): HORT 1100, HORT 1210, HORT 1211 and HORT 1212 (HORT 1100 must be taken before students begin this course; however, HORT 1210, HORT 1211 and HORT 1212 can be taken concurrently)
This class is the capstone part of Landscape Management. Students will study environmental landscaping using indigenous plant materials in the Midwest.

HORT 2530 Greenhouse Crop Production 2 – 3 – 3
Prerequisites (2): HORT 1100 and BIOS 2410
This course is an introduction to greenhouse management. Various greenhouse structures and their maintenance regarding crop production are discussed. Numerous greenhouse crops and their specific requirements for commercial production are outlined.

HORT 2540 Flower Shop Operations 3 – 0 – 3
This course covers basic flower shop arrangement, management, equipment, supply sources and various marketing techniques.

HORT 2900 Special Topics in Horticulture Variable
Prerequisites (1): Instructor approval
Various topics not covered in other Horticulture courses are offered depending upon interest and relevancy to the curriculum. Such topics may include roses, ornamental grasses, special gardening techniques and plans and computer-aided landscape design.

HORT 2981 Internship 0 – 15 – 3
Prerequisites (2): Must have earned a minimum of 18 credit hours in Horticulture courses and instructor approval
The student works in a horticulture-related field under the direction of a qualified supervisor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

HORT 2991 Special Project in Horticulture 0 – 3 – 1
Prerequisites (3): 3 credit hours earned in Horticulture, be presently enrolled in a Horticulture class and instructor approval
The student works with the Horticulture faculty in designing, implementing and evaluating a special horticulture project. The student meets with the faculty on a regular basis for consultation and evaluation.

HUMANITIES (HUMS)

Competency in college entry-level reading and writing skills is recommended for all courses in Humanities.

HUMS 1000 The Art of Being Human 4.5 – 0 – 4.5
Every person contributes something essential and unique toward our understanding of the human experience—a sketch, an idea, a scrap of song. It is the business of this course to raise questions that probe human identity, explore life's meaning and consider the preciousness of human community. It is the premise of this course that a question can be asked by a painting and answered by a trumpet. It is the quest of this course to discover life and art as they imitate each other. (Formerly HUM 110)

HUMS 1100 Classical Humanities 4.5 – 0 –4.5
This course is a survey of the development of western civilization focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion and philosophy. This course concentrates on the evolution of the western tradition during the classical period.

HUMS 1110 Origins of the Humanities 4.5 – 0 – 4.5
The ancient non-western cultures and societies that gave rise to western civilization will be explored. Topics will cover art, literature and philosophy in the ancient cultures of the Near East, Asia and the Mediterranean.

HUMS 1120 Western Tradition I 4.5 – 0 – 4.5
This course is a survey of the development of western civilization focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion and philosophy. This course concentrates on the evolution of the western tradition from the Greeks and Romans to 1715.

HUMS 1130 Western Tradition II 4.5 – 0 – 4.5
This course is a survey of the development of western civilization focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion and philosophy. This course concentrates on the evolution of the western tradition from 1715 to the present.

HUMS 1140 Multicultural Humanities I 4.5 – 0 – 4.5
This course is a comparative study of non-western cultures focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion and philosophy. This course addresses achievements of selected indigenous and non-indigenous cultures of the Americas.

HUMS 1150 Multicultural Humanities II 4.5 – 0 – 4.5
This course is a comparative study of non-western cultures focusing on human accomplishments in painting, sculpture, architecture, music literature, religion and philosophy. This course addresses achievements of selected peoples and cultures of the Middle East, Africa and Asia.

HUMS 2310 Film History and Appreciation 4.5 – 0 – 4.5
Prerequisite (1): English Level I, HUMS 1000 or instructor approval
This course explores the development of the film genre as an art form, an industry and a system of representation and communication, as well as examining film theory and ideology. How film works technically, stylistically, aesthetically and culturally are also major components of this course.

HUMS 2900 Special Topics in Humanities Variable
Topics not covered in other Humanities courses are presented in HUMS 2900. These topics expand upon the relationships between culture and the visual or performing arts and/or the investigation of non-western cultures.

HUMAN RELATIONS (HMRL)

HMRL 1010 Human Relations Skills* 4.5 – 0 – 4.5
This is an introductory course in interpersonal skills stressing the importance of utilizing those skills in the workplace. The student is presented with opportunities to become more effective, discerning, ethical, flexible, perceptive and understanding in both professional and personal endeavors. Special attention is given to appropriate communications skills, multinational and diversity awareness, teamwork and job-seeking skills as applied to an increasingly customer-oriented workplace.

**The modular courses HMRL 101A, HMRL 101B and HMRL 101C may be taken in any order and are (in combination) equivalent to HMRL 1010.*

HMRL 101A Strategies for Personal and Workplace Communications 1.5 – 0 – 1.5
This segment introduces students to the study of how human relations helps achieve career success and increased work/life balance. The course examines strategies for improving personal and workplace communications, identification of personal communication styles, how language and cultural differences may create barriers to effective communication, approaches for creating a professional presence, self-esteem building and professional ethics.

HMRL 101B Strategies for Personal Success in the Workplace 1.5 – 0 –1.5
This segment introduces students to the study of how human relations helps achieve career success and increased work/life balance. One major focus of this segment emphasizes helping students to understand that attitudes represent a powerful force in life and within the workplace. In addition, the course examines how several human diversity factors may influence attitude formation and relationships in the workplace. Students will achieve an understanding of self-motivation, constructive self-disclosure for building strong and healthy interpersonal relationships, the influence of emotions on thinking and behavior and the factors that contribute to the emotional balance and stronger relationships in the workplace.

HMRL 101C Strategies for Working with Others 1.5 – 0 – 1.5
This segment introduces students to the study of how human relations helps achieve career success and increased work/life balance. This segment emphasizes the importance of teamwork and examines the basic elements of the team-building leadership style, the sources of workplace conflict and conflict resolution, valuing diversity in the workplace, evaluating personal stress levels and learning how to identify and implement effective stress management strategies. In addition, students will examine how the traditional roles of both sexes are changing in today's world and workplace. Students will examine traditional measures of success and evaluate for themselves a personal definition of career success.

HMRL 1050 Leadership: Training and Skill Development 4.5 – 0 – 4.5
This course prepares the student to assume increasingly responsible leadership roles in his/her personal, professional and academic lives. As such, the course focuses not only on significant theories of leadership and their applicability to leaders of the past and present but also includes substantial hands-on, experiential learning opportunities in which the student practices leadership in action.

HMRL 1060 Advanced Human Relations for Innovative Leaders 4.5 – 0 – 4.5
Prior completion of HMRL 1010 Human Relations Skills or concurrent completion is recommended.
Today's workplace is a dynamic, rewarding opportunity for the responsible leader. This course prepares students to assume increasingly responsible leadership roles in their personal and professional lives. Curriculum is based upon input from Omaha area employers and includes focus upon career development, oral and written communication for the workplace, service learning, leadership skills in teamwork and building upon strengths as a catalyst for organizational achievement. As an advanced course in Human Relations, it is designed for anyone seeking to lead others in business or nonprofit organizations.

HMRL 2900 Special Topics in Human Relations Variable
This course permits instruction in special areas of interest within the Human Relations discipline.

HUMAN SERVICES (HMSV)

HMSV 1010 Introduction to Human Services 4 – 0 – 4
This introductory course explores the human services field. The student is exposed to historical perspectives, ethics and the role of the community support human service practitioner in various agencies and specific areas of human services employment. (Formerly HMS 101)

HMSV 1110 Interpersonal Communication Skills 3.5 – 0 – 3.5
This is an introductory course in basic interpersonal communication skills. The student discusses, evaluates and demonstrates skills of appropriate self-disclosure, active listening and appropriate challenging. These skills are acquired through small group discussion with other students.

HMSV 1120 Helping Skills and Techniques 3 – 2 – 3.5
Prerequisite (1): HMSV 1110
This course begins to prepare the student to use good helping skills on a one-to-one basis. Counseling skills/techniques include at least four of the following: active listening, reflective feedback, summarizing, self-disclosing, displaying empathy, confronting, establishing rapport and communicating at the client's comprehension level. Skills are acquired and demonstrated through videotaped role-plays, in-class role-plays, counseling critiques, case studies and other experiential exercises.

HMSV 1130 Introduction to Counseling Theories 3.5 – 1 – 3.5
Prerequisites (2): HMSV 1120 and ENGL 1020
This course focuses on an examination of historical and current theories of counseling. Counseling theories include at least the following: rational-emotive therapy, Gestalt therapy, reality therapy and client-centered therapy. This course includes practice in utilizing counseling techniques and theories.

HMSV 1140 Assessment, Case Planning and Management **3 – 2 – 3.5**

Prerequisite (2): ENGL 1020 and PSYC 1010

This course includes the process of collecting pertinent data about client or client systems and their environment and appraising the data as a basis for making decisions regarding diagnosis, treatment and/or referral of chemical dependency clients. Instruction on coordinating and prioritizing client treatment goals and working with other services, agencies and resources to achieve those treatment goals are included. This course also includes practice in assessing and managing a case including the development of sample case records and utilizing the written client records to guide and monitor services with emphasis on the development of the social history and intake, initial assessment, individual treatment plans with measurable goals and objectives, documentation of progress and on-going assessment. Confidentiality of client information and records as defined in 42 CFR, Part 2 is addressed. The strengths and weaknesses of various levels of care and the selection of an appropriate level for clients are studied. Basic information on two or more objective assessment instruments for alcohol/drug disorders such as the Michigan Alcoholism Screening Test (MAST), Substance Abuse Subtle Screening Inventory (SASSI), Addiction Severity Index (ASI), Mortimer-Filkins and others are studied.

HMSV 1150 Community Resources **3.5 – 0 – 3.5**

Prerequisites (1): HMSV 1010 or CRIM 1010

This course provides the student with an opportunity to explore career options in the human services field through direct observation in a field setting and through guest speakers. This course also helps the student begin to develop knowledge of community resources.

HMSV 1160 Medical and Social Aspects of Addictions **4.5 – 0 – 4.5**

Prerequisite (2): ENGL 1020 and PSYC 1010 (or concurrent enrollment in PSYC 1010)

This course includes the study of the physiological, psychological and sociological aspects of alcohol and drug use, abuse and dependence. The classifications and basic pharmacology of drugs, basic physiology and the effects of drug use on the systems of the human body and alcohol and drug tolerance are discussed. This course also includes the etiological, behavioral, cultural and demographical aspects and belief systems about alcohol and drug use along with the processes of dependence and addiction including signs, symptoms and behavior patterns.

HMSV 2050 Professional Ethics and Issues **2 – 0 – 2**

Prerequisites (3): HMSV 1130, HMSV 2150 and ENGL 1010

This course will address a wide range of ethical issues as they apply to human services and chemical dependency counseling. These issues include confidentiality, dual relationships, competency and referral, counselor values and conflicts, legality and ethics, client welfare, establishing appropriate limits and boundaries in the client relationship, informed consent, dealing with impaired professionals, professionalism (including responsibility for competence, professional development, burnout and self-care) and the need for cultural diversity. Ethical codes of professional organizations will be examined as well. These organizations include but are not limited to NOHSE, NAADAC, ACA, APA, ARCA and NASW.

HMSV 2110 Group Counseling **4.5 – 0 – 4.5**

Prerequisites (2): ENGL 1020 and HMSV 1130 (or concurrent enrollment in HMSV 1130)

This course includes the study of group theory, processes and dynamics as well as techniques and methods of group counseling and facilitation. The coursework includes practice in group counseling and facilitation.

HMSV 2120 Social Services Policy **4.5 – 0 – 4.5**

Prerequisites (4): HMSV 1010, ENGL 1020, PSYC 1010 and SOCI 1010

This course provides an examination of social policy development. The examination focuses on historical factors, value assumptions and social, political and economic contexts. The processes and skills necessary for examination and evaluation are emphasized. Social issues in the field of human services are explored and related to social policy.

HMSV 2130 Treatment Issues in Chemical Dependency **4 – 0 – 4**

Prerequisites (2): HMSV 1160 and ENGL 1020

This course includes the study of treatment issues specific to alcohol and drug disorders including, as a minimum, dual diagnosis and the impact of physical and mental health disorders on alcohol and drug treatment; the historic and generational influences on alcohol and drug abuse and dependence including adult children of alcoholics, enabling and the family disease concept; the influences of Alcoholics Anonymous (AA), Narcotics Anonymous and the 12-step philosophies in alcohol and drug treatment; and the uniqueness of special populations including sexual orientation, cultural dimensions, adolescents, women and the elderly and how that uniqueness affects assessment of, response to and delivery of alcohol and drug treatment. Along with studying treatment issues specific to different populations, other aspects of chemical dependency treatment are discussed including treatment methodology and aspects of treatment that address resistance, denial, minimization, relapse and relapse prevention, cross-addiction, spirituality issues and the influence of other self-help groups including 12-step groups.

HMSV 2140 Family Therapy **4 – 0 – 4**

Prerequisites (3): HMSV 1130, ENGL 1010 and SOCI 1010 (or concurrent enrollment in SOCI 1010)

Theories of family therapy are reviewed with an emphasis on the systemic model of therapy. Theoretical approaches are applied to case examples.

HMSV 2150 Multicultural Counseling 4.5 – 0 – 4.5
Prerequisites (2): ENGL 1020 and HMSV 1130 (or concurrent enrollment in HMSV 1130)
This course discusses the counseling implications for cultural, social and economic factors as they affect diverse groups including African Americans, Native Americans, Hispanics and others. Attention is paid to multicultural barriers and to the impact of the counselor's own worldview on the counseling relationship. Adaptation of counseling techniques and theories to the needs of minority clients are examined.

HMSV 2160 Advanced Group Skills 4.5 – 0 – 4.5
Prerequisite (1): HMSV 2110
This course is an advanced course in theory and practice of group counseling. The student will continue to learn about the process of group counseling as well as demonstrate their skills in facilitating the group process in a safe and structured setting.

HMSV 2250 Survey of Exceptional Populations 4.5 – 0 – 4.5
Prerequisites (2): ECED 1150 or HMSV 1010 and ENGL 1020
This course focuses on the identification, definition and causes of exceptionalities. Concepts and trends in the field of exceptionalities, as well as laws pertaining to the rights and services of the exceptional persons are emphasized.

HMSV 2310 Prepracticum 2 – 1 – 2
Prerequisites (6): HMSV 1010 or HMSV 1160, HMSV 1110, HMSV 1120, HMSV 1140, PSYC 1010 and ENGL 1010 (or concurrent enrollment in HMSV 2050 and HMSV 2150)
This course focuses on factors necessary for the successful completion of practicums. Topics in the course will include work behavior and work attitude; developing and writing appropriate goals and objectives; professional presentation and development; informational interviews to gather data about human service organizations and agencies; recognition and management of personal issues that may influence performance as a professional worker; policies, rules and procedures applicable to the practicums; and volunteering in a human service organization or agency.

HMSV 2450 Crisis Intervention 3 – 0 – 3
Prerequisites (2): HMSV 1120 and ENGL 1020
The focus of this course is twofold: (1) to explore theories about crisis intervention and how to apply that theory in the field and (2) to systematically improve the students' interview, communication, evaluation and helping skills within the framework of crisis intervention and management.

HMSV 2900 Special Topics in Human Services Variable
Prerequisites (1): Consultation with faculty
This course permits instruction in special content areas not included in other courses of the Human Services Program.

HMSV 2991 Practicum I/ General Human Services 0 – 15 – 5
Prerequisites (1): Completion of all first-year courses as listed in the College catalog for the program and special admission requirements
This course provides the student with field opportunities to expand and apply his/her practical and classroom experience. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2992 Practicum II/ General Human Services 0 – 15 – 5
Prerequisite (1): HMSV 2991
This course provides the student with continued opportunities and experiences to integrate and apply classroom and textbook knowledge in addition to experiences from the first practicum. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2993 Practicum III/ General Human Services 0 – 15 – 5
Prerequisite (1): HMSV 2992
Practicum III provides the student with experience in a more specialized area of human services. The student continues to integrate and apply classroom knowledge and experiences as well as experiences from the first two practica. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2994 Practicum I/ Chemical Dependency Counseling 0 – 15 – 5
Prerequisites (1): Completion of all first-year courses as listed in the College catalog for the program and special admission requirements
This course provides the student with an opportunity to have a practical work experience with chemical dependency counseling. The College assigns the student to agencies, institutions or treatment centers serving and treating chemically dependent clients. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2995 Practicum II/ Chemical Dependency Counseling 0 – 15 – 5
Prerequisite (1): HMSV 2994
This course provides the student with the opportunity to expand his/her practical work experience with chemical dependency counseling. The College assigns the student to agencies, institutions or treatment centers serving and treating chemically dependent clients. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum

HMSV 2996 Practicum III/
Chemical Dependency Counseling 0 – 15 – 5
Prerequisite (1): HMSV 2995
This course provides the student with the opportunity to expand his/her practical work experience in chemical dependency counseling. The College assigns the student to agencies, institutions or treatment centers serving and treating chemically dependent clients. The student is required to successfully complete a practicum seminar in conjunction with the assigned practicum.

INDUSTRIAL AND COMMERCIAL TRADES (INCT)

INCT 0900 Introduction to the Trades 2 – 0 – 2
This course will introduce students to the trades by examining the various employment paths available. The course will include classroom discussion, on-site tours and guest presenters. Tools, fasteners, equipment, basic measurement and shop safety will also be covered.

INCT 1000 Industrial Safety and Health 4.5 – 0 – 4.5
This course covers the basics of industrial safety and health. Topics include lock out/tag out, confined space entry, blood-borne pathogens, hot work, ladder safety and fall protection. Additional safe work practices and procedures are covered. Students who successfully complete this course are eligible to receive the OSHA 30-hour general industry course completion card.

INCT 1010 Introduction to the Trades II 6 – 0 – 6
This course is designed to introduce students to skills generally required for entry-level employment in the trades. Topics will include but are not limited to basic safety, hand tools, power tools, construction math, print reading, rigging, communication and employability skills.

INCT 1050 Mechanical Print Reading 4 – 0 – 4
This course is directed toward the development of skills required for visualizing and interpreting industrial prints and freehand technical sketching. Topics include identifying prints, drafting and print-reading procedures, machining specifications, geometric dimensioning and applied mathematics.

INCT 1200 Basic Electricity 6 – 1.5 – 6.5
This course includes an introduction to electrical theory, series and parallel circuits. Areas of emphasis are alternating current, OHM's law, meters, grounding, preview of the National Electric Code (NEC), troubleshooting and repair. (Cross-listed as ELTR 1200)

INCT 1210 Residential Wiring 9 – 0 – 9
Prerequisite (1): INCT 1200
This course is designed to give students basic knowledge of the electrical circuitry found in residential wiring. Students will learn to apply the National Electrical Code (NEC) standards. (Cross-listed as ELTR 1210)

INCT 1212 Motor and Machine Controls 9 – 0 – 9
Prerequisite (1): ELTR1200, INCT 1200 or ELAP 1220
This course introduces the student to state-of-the-art motor control components and provides them with a basic knowledge of control circuitry. The student will build on his/her experiences from Basic Electricity by designing, building and troubleshooting more complex circuits. The designed circuits will control live, three-phase line voltage equipment. Devices such as contactors, motor-starters, relays, timers, mechanical and proximity switches are used. Electronic motor controls and programmable devices such as variable frequency drives are introduced and utilized in this course. (Cross-listed as ELTR 1212)

INCT 1300 Floor Coverings 3 – 1.5 – 3.5
This course includes installation of ceramic tile, asphalt tile, vinyl floorings, carpet and laminate floors. Repair of floor coverings is also covered.

INCT 1301 Home and
Building Maintenance Carpentry 4.5 – 0 – 4.5
This course includes an introduction to building products, carpentry tools and safety, as well as other skills necessary for a maintenance carpenter. Emphasis will be placed on handling carpenter tools safely, insulation and weatherization. Drywall hanging and patching, suspended ceiling installation, door hanging and interior trim will be covered.

INCT 1302 Stationary Engineering I 3 – 0 – 3
This course provides the student with basic instruction in low- and high-pressure boilers in the stationary engineering field.

INCT 1303 Basic Plumbing 6 – 1.5 – 6.5
This course includes an introduction to the plumbing trade through safety, types of plumbing supplies, the designing and installation of plumbing systems, identification of valves, faucets and water heaters. Troubleshooting and repairs of typical plumbing problems are covered.

INCT 1304 Small Engine Repair 4 – 1.5 – 4.5
This course includes troubleshooting and repair of small gas engines and power equipment. The proper procedures for testing and repair of electrical components are covered.

INCT 1331 Information Transport Systems
Level I 6.5 – 0 – 6.5
Prerequisite (1): INCT 1200
Students will work with various types of insulation displacement terminations, as well as wire wrapping. Codes and standards and how they apply to the Information Transport System will be explained. The student will work with various types of termination hardware and identify where it is used. Color codes and how they apply to the infrastructure, cable pulling and various types of media used for the job will also be covered. (Cross-listed as ELTR 1331)

INCT 1400 Introduction to Precision Machine Technology 6 – 1.5 – 6.5
Introduction to machines, tools and processes associated with the machine trade is offered. Fundamentals in bench layout, basic machine tool operation and metal removal processes, measuring devices and identification of equipment are covered.

INCT 1410 Precision Layout and Finishing 4 – 0 – 4
Prerequisite (1): INCT 1400
The student gains experience in the operation of the standard upright drill press and horizontal and vertical saws. Different work-piece holding methods such as vises and fixtures are used in the process of drilling, reaming, counter-boring and tapping.

INCT 1420 Basic Engine Lathe 4 – 0 – 4
Prerequisite (1): INCT 1410
The student becomes involved in basic engine lathe operations such as formulas for calculating speeds and feeds, rough turning, facing, center drilling, threading, cutting angles with compound rest and turning between centers. Special emphasis is on machine safety.

INCT 1421 Basic Milling Machine 4 – 0 – 4
Prerequisite (1): INCT 1410
The student is instructed in fundamental operations common to milling machine practice. The student becomes familiar with and uses the various types of work-holding devices, cutters and arbors used in performing plain milling, side milling, face milling and angular milling.

INCT 1422 Basic Grinding Machine Setup and Operations 4 – 0 – 4
Prerequisite (1): INCT 1410
Instructions begin with the different types, shapes and markings of grinding wheels. The student acquires basic knowledge involving work setups, grinding wheel shaping, grinding wheel dressing, types of grinding fluids and basic flat grinding operations.

INCT 1500 Introduction to Distribution 4.5 – 0 – 4.5
Students interested in learning about the importance of distribution in manufacturing need a good overview of distributors and distributorships. This course provides this by examining the role of distributors in bringing goods to market, adding value through distributor services and tracking products from procurement through final sale and installation. Basic accounting principles and contract law necessary for distribution will also be introduced.

INCT 2050 Problem Solving 3 – 0 – 3
This course builds troubleshooting expertise for maintenance professionals and decision makers at all levels. Creative and critical thinking, problem solving and troubleshooting are examined.

INCT 2060 Mechanical Power Systems 4.5 – 0 – 4.5
This course covers mechanical power system essentials. Topics include belts, pulleys, sheaves, lubrication, gears, sprockets, gear-reducers, bearings, couplings and chain drives.

INCT 2070 Hydraulics and Pneumatics 4 – 0– 4
This course covers the basics of fluid power, both hydraulic and pneumatic. Transmission of fluid energy, identification of components and controls are covered.

INCT 2231 Programmable Logic Controllers I 4.5 – 0 – 4.5
Prerequisite (1): INCT 1212
This course introduces programmable logic controllers (PLCs). Various programmable control devices are covered. System components, installation and introductory programming terms are covered. Students will learn to monitor, upload and download programs to processors. (Cross-listed as ELTR 2231)

INCT 2232 Programmable Logic Controllers II 4.5 – 0 – 4.5
Prerequisite (1): INCT 2231 or ELTR 2231
This course focuses on troubleshooting machine problems using the programmable logic controller. Search functions, timers, counters and editing of existing programs will be covered. Students will learn to diagnose machine failures through the processor program.

INCT 2235 Programmable Logic Controllers Applications 9 – 0 – 9
Prerequisites (4): INCT 1050, INCT 2060, INCT 2070 and INCT 2232
This course builds on the knowledge and skills learned in previous programmable logic controller courses. It covers programming analog devices and the integration and programming of operator interfaces such as digital displays and touch screens. The creation of machine files and documentation is covered and practiced, as well as the process of working from the rules of operation and creating a program. The student is challenged to write a program, test and de-bug the program and commission a machine into final operation.

INCT 2302 Stationary Engineering II 4 – 0 – 4
Prerequisite (1): INCT 1302
This course provides the student with advanced instruction in steam boilers and related systems in the stationary engineering field. This course is a continuation of INCT 1302.

INCT 2410 CNC Milling 4 – 0 – 4
Prerequisite (1): INCT 1410
The student focuses on the basic fundamentals of programming and operation of the CNC (computer numerical controlled) milling machine. Through classroom study and lab projects, the student gains an understanding of and experiences the equipment operation. With an understanding of this equipment, an otherwise difficult or impossible machine, projects are completed with ease.

INCT 2420 Intermediate Engine Lathe 4 – 0 – 4
Prerequisite (1): INCT 1420
The student learns the techniques of drilling, threading, boring, tapping holes and reaming. Proper methods of cutting tapers with the compound rest and taper attachment along with the teaching of skills necessary in cutting threads by the single-point tool method are emphasized.

INCT 2421 Intermediate Milling Machines 4 – 0 – 4
Prerequisite (1): INCT 1421
The student develops skill in determining cutting feeds and speeds, work-holding methods and performing additional milling operations such as end milling, drilling, reaming and boring.

INCT 2422 Intermediate Grinding Machines 4 – 0 – 4
Prerequisite (1): INCT 1422
The student learns operations using the standard surface grinder, the use of holding attachments, set-up work and the grinding of material to predetermined sizes.

INCT 2440 Advanced Machining Process 4 – 0 – 4
Prerequisites (2): INCT 1410 and INCT 2421
This class is to help the student gain shop time experience and at the same time schedule and estimate time required for a project. A project will be selected by the student and approved by the instructor. The student will be given an opportunity to schedule and complete the project. Upon completion of the project, the student will compare the scheduled time to the actual time as well as the quality and quantity.

INCT 2900 Special Topics in INCT Variable
Prerequisites (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Industrial Maintenance Program.

INCT 2981 Internship Variable
Prerequisites (1): Instructor approval
The internship provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested students must contact his/her faculty advisor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

INFORMATION TECHNOLOGY (INFO)

INFO 1001 Information Systems and Literacy* **4.5 – 0 – 4.5**
WORK 130A and WORK 130B or a basic understanding of computer systems is recommended.
This course introduces the student to information systems and information literacy concepts that are needed in the day-to-day academic course of study. Basic skills are developed using library, research and office productivity software. The student learns computer file management by organizing, managing and printing files; creating, editing and formatting documents using a word processor; planning, developing and validating basic worksheets such as editing cells and employing formulas using a spreadsheet; building basic slide presentations using headings, key phrases, notes and displaying the presentation using presentation software; applying user-level security such as selecting passwords and securing the desktop; and using email to send and receive messages and attach documents. Information literacy concepts such as accessing information using library databases and the Internet and evaluating sources to determine validity and reliability of material are also part of this course.

**WORK 130A and WORK 130B are 1 credit hour class options to take before INFO 1001 for the person with little or no computer experience.*

These classes focus on a very basic introduction to microcomputer usage and computer programs. Refer to page 364 for more complete course descriptions.

For the online sections of INFO 1001 (e.g., WA, WW), the student needs a basic knowledge of computers. The student who has never used a computer or the Internet on a regular basis should consider taking the class in traditional classroom format.

INFO 1002 Introduction to Information Technology **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001 or GCAD 1020
This course explores various roles in information technology (IT). The student examines the current areas of technology in the workplace such as helpdesk, networking, web and e-commerce development, database management, programming, data center and graphic arts. Related topics include current issues, communication, project management and careers in IT.

INFO 1003 Introduction to Computer Programming* **5 – 0 – 5**
Co-requisite (1): INFO 1001 (must be taken at the same time or completed earlier)
This course provides the beginning programmer with a firm foundation in concepts used in structured and object-oriented computer programming. The course emphasizes the use of mathematical problem solving and logic needed to understand a problem. The student uses printer spacing charts, flowcharts, pseudo code and algorithms to document logic as a solution to a programming problem. The student uses current programming software to implement the logic as a computer program.

**The student needs to understand the basics of how to use a personal computer (use Windows, save files and print documents).*

INFO 1004 Introduction to e-Commerce **4.5 –0 – 4.5**

Prerequisite (1): INFO 1001

This course introduces the concepts, vocabulary and procedures associated with e-commerce and the Internet. The student will gain an overview of all aspects of e-commerce. Topics include development of the Internet and e-commerce, options available for doing business on the Internet, features of web sites and the tools used to build an e-commerce web site, marketing issues, payment options, security issues and customer service. (Cross-listed as BSAD 1004)

INFO 1005 Keyboarding* **1.5 – 1.5 – 2**

This is a beginning course for the student with little or no previous keyboarding instruction. It introduces the computer keyboard and develops correct techniques for attaining useful levels of speed and accuracy.

**Students who can type 30 words per minute can test out of INFO 1005.*

INFO 1007 Introduction to Object-Oriented Computer Programming **3 – 0 – 3**

This course provides the experienced programmer with a firm foundation in concepts used in object-oriented computer programming. The student learns about attributes and methods, inheritance, polymorphism, real-world and case modeling and object-oriented programming languages. This class is designed for the experienced programmer who wants to transition from a system-building mind-set into an object-oriented perspective—how to object-think and program using object-oriented principles. The student should be proficient in a graphic user interface (GUI) environment.

INFO 1008 Business Office Communications **4.5 – 0 – 4.5**

This course explores the use of technology in today's business environment. The student practices effective telephone skills as well as written business communications. Some topics include using voice recognition, handwriting recognition, the personal digital assistant (PDA) and Microsoft Outlook software.

INFO 1010 Customer Service Skills **4.5 – 0 – 4.5**

Prerequisite (1): ENGL 1220

This course is designed to provide an in-depth look at the soft skills and self-management skills people need to provide effective customer service and support in all business environments.

INFO 1011 Project Management I **4.5 – 0 – 4.5**

Prerequisite (1): INFO 1001

Project management is the discipline of defining and managing the vision, tasks and resources required to complete a project. This course provides an introduction to the project management process, resource management (time, money and people), quality control, communications and risk.

INFO 1012 Electronic Filing and Calculating **4.5 – 0 –4.5**

Prerequisite (1): INFO 1001

Co-requisite (1): MATH 1220 (must be taken at same time or completed earlier)

The student utilizes manual and electronic methods in completing a variety of practical applications. Projects include records management using the standard indexing rules developed by the Association of Records Managers and Administrators (ARMA). The course also covers financial records management including using the ten-key desktop calculator for basic math problems, decimals, percents, fractions, combined operations, petty cash accounts, payroll, mark up and mark down, invoices and banking records.

INFO 1013 Keyboard Skillbuilding **1.5 – 1.5 – 2**

Prerequisite (1): INFO 1005

This course includes diagnosis of current keyboarding skills, individualized practice and evaluation of progress. The student utilizes the alphabetic and numeric keyboard and the numeric keypad. The student must have had prior keyboarding experience.

INFO 1021 Project Management II **4.5 – 0 – 4.5**

Prerequisite (1): INFO 1011

This is the second of a two-course series on project management. In this course, the student learns advanced techniques and concepts in the area of project management. The student completes projects utilizing project management software.

INFO 1023 Networking Essentials **4.5 – 0 – 4.5**

Prerequisite (2): INFO 1002 and INFO 1110

The fundamentals of data communications, local area networking (LAN) and wide area networking (WAN) are described and discussed. Topics include network services, terminology, physical layer components, protocols, the OSI model, architecture standards and WAN technologies.

INFO 1100 Introduction to Bioinformatics **4.5 – 0 – 4.5**

This course introduces the emerging topic of bioinformatics. It is an introductory class designed for the student interested in survey-level knowledge of bioinformatics and its techniques. The course introduces how mathematics, statistics, computer science, chemistry and biology are used to address problems of interest to bioinformatics.

INFO 1110 Operating Systems I* **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course teaches the student how to effectively utilize Microsoft Windows, Linux and Macintosh operating systems to manage personal computer (PC) operations. Emphasis is placed on defining basic operating system terminology, locating and using built-in help features, executing routine disk management and maintenance techniques, performing routine file and system management and the Command Line Interface (CLI). This course also introduces batch files and scripts. This course helps prepare the student for the CompTIA A+ certification.

> **The student with command line interface experience will have less difficulty with this course.*

INFO 1111 Linux Operating System I **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1003 and INFO 1110
This course introduces the student to the Linux operating system. The student learns about navigation of the file structure, communication methods and fundamental concepts of Linux needed to use the system effectively. This course is the first step in preparing the student to successfully achieve Linux+ Certification.

INFO 1112 Introduction to IBM i **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course introduces the student to the IBM i. The course presents the architecture of the IBM i system. Features covered include IBM i menus, system displays, logical and physical files and an introduction to the control language. Other topics included are code and operation navigator and any new topics or technology in the IBM i area.

INFO 1113 AIX Operating System **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1003
This course introduces the student to the IBM AIX UNIX operating system. This is a course for a beginning UNIX student. Topics include general operating system concepts, the traditional UNIX/AIX file system, basic and intermediate level commands, shell scripts and interaction with the Kourne shell.

INFO 1120 Operating Systems II **4.5 – 0 – 4.5**
Prerequisites (3): INFO 1003, INFO 1011 and INFO 1110 or ELEC 1210
This course, a continuation of the Operating Systems I course, provides a technical overview of operating systems, advanced disk and system management. The student installs the operating systems and then optimizes and protects them. The operating systems are considered as a stand-alone system, a client on a network and as a network operating system. This course reinforces Linux, batch file and script concepts.

INFO 1121 Linux Operating System II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1111
This course is a continuation of INFO 1111. This course describes advanced features of the Linux operating system. Topics include installing the Linux operating system, advanced shell programming, process creation and management, system administration duties, resource management, file systems and other advanced Linux topics. This course is the final step toward student success in achieving Linux+ Certification.

INFO 1131 Linux Networking I **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1023 and INFO 1120
This course is a comprehensive overview of the Linux operating system. Topics focus on networking, installing workstations and servers and LAN administration. The textbook used is based on the skill set needed to become Linux+ certified, which starts with basics such as device files and the file system and moves into topics such as the X Window System, RPMs and TCP/IP.

INFO 1210 Microsoft Word I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course is designed to explore the features of Microsoft Word to create, design and produce professional documents. Emphasis is placed upon character, paragraph and document formatting. The student explores features such as tables, columns, labels, envelopes, outlines, styles, borders, shading, AutoFormat and templates. The student learns to enhance the visual display and clarity of documents by using various customizing and enhancement features. In addition, working with multiple documents, basic file management techniques, inserting graphic elements and exploring the development of web pages are covered.

INFO 1212 Spreadsheet I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course is designed to teach the student spreadsheet techniques using Microsoft Excel. The student learns to design, create, manipulate and print worksheets; use templates; create graphs; whatif-analysis; use various functions; create static and dynamic web pages; send workbooks via email and work with multiple worksheets/workbooks.

INFO 1213 Database Fundamentals I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
The student is introduced to database operations using Microsoft Access. This course focuses on database concepts, creation of tables, queries, forms and reports.

INFO 1214 Business Presentations **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
The student learns to present data in a quick, concise and effective manner using Microsoft PowerPoint presentation software. The student creates text slides, uses drawing tools, adds clip art and prepares a full multi-slide presentation. The mid-term and final projects require the student to present a slideshow to the class practicing professional behavior, dress and speaking manner, as well as PowerPoint presentation skills. This course covers the certification objectives for the Microsoft Certified Application Specialist (MCAS) certification.

INFO 1215 Document Processing **4.5 – 0 – 4.5**
Prerequisites (3): INFO 1008, INFO 1013 and INFO 1210
This course provides thorough instruction in using word processing software to prepare a variety of business documents. Emphasis is placed on planning and designing the layout of the document; correct formatting; proper spelling, grammar and punctuation; and increasing typing speed and accuracy.

INFO 1216 Call Center Operations I **4.5 – 0 – 4.5**
This course is an introduction to call center operations. Topics include industry definitions and vocabulary, types of call centers, workplace policies and employer expectations. Further exploration includes the topics of customer care strategies, call center technology and equipment and effective communication skills.

INFO 1220 Microsoft Word II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1210
This course is a continuation of INFO 1210. The student uses the advanced features of Microsoft Word such as AutoText, mail merge, shared documents, macros, footnotes, cross-references, borders, tables and fill-in forms to efficiently produce professional documents. This course also includes an introduction to creating documents regarded as desktop publishing projects. This course completes the objectives needed for the Microsoft Certified Application Specialist (MCAS) certification.

INFO 1222 Spreadsheet II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1212
This course is a continuation of INFO 1212. The student applies advanced design concepts such as goal seek, scenario manager, solver, data tables, consolidation, pivot tables, pivot charts, MS Query, create and edit macros and integrates these features with web interactivity. This course covers the objectives for the Microsoft Certified Application Specialist (MCAS) certification.

INFO 1223 Database Fundamentals II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1213
A continuation of INFO 1213, this course focuses sharing and integrating Access with other software programs, creating and using action queries and advanced table relationships, automating tasks with macros, using and writing Visual Basic for Application code and managing and securing a database. The completion of both Access courses helps prepare the student for Microsoft Certified Application Specialist (MCAS) certification.

INFO 1226 Call Center Operations II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1216
This course introduces the student to typical call center operations in a simulated setting. The student gains experience in analyzing customer interactions to determine appropriate responses to all types of customer needs and requests. Simulated call center software and equipment will allow the student hands-on practice to process calls and input data. Further emphasis is placed on teamwork, problem solving and oral and written communication skills.

INFO 1240 Integrated Applications for the Help Desk **4.5 – 0 – 4.5**
Prerequisites (4): INFO 1001, INFO 1002, INFO 1008 and INFO 1110
This course is designed to build on application skills from INFO 1001 to enhance performance in a support environment. The student learns additional file formats, data structures and integration between applications. The use of knowledge and incident management software is introduced, showing the student how to integrate customer support skills into their use.

INFO 1311 XHTML and CSS **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1002 and INFO 1110
This course is designed to teach the student how to create basic web sites using XHTML and CSS specifications. Creating XHTML pages that include links, images, tables, multimedia and forms are covered. Additional advanced features such as implementing web interactivity, JavaScript, Java applets and server-side includes is also discussed. CSS is used to control the format and layout of web pages. The student learns about the advantages of using CSS when styling web content.

INFO 1315 Interface Design **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1311
This course looks at interface design from the perspective of content, page, site, screen and visual design. The student learns the fundamentals of design and gains practical experience with visual layout. The student explores typography and color theory in regard to their use on the web, computer screens and in a variety of commercial settings. The course serves as an introduction to usability principles and user-centered interface design. The student learns how to increase accessibility to alternate browsers, operating systems, platforms and to those with disabilities.

INFO 1316 Dreamweaver I **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1315 and INFO 1318
This course provides instruction and experience in the use of Dreamweaver to create, edit and manage well-designed web sites. The student learns how to utilize the software to incorporate the following HTML elements: tables, CSS, multimedia, forms and other advanced Dreamweaver features.

INFO 1317 Microsoft Web Editor **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1002
This course instructs the student on how to create, manage and publish web sites using Microsoft Expression Web. The student learns how to plan and create web sites, work with templates, format text and use CSS. Discussion also includes how to work with images, create links, add multimedia and create tables. Finally, the student learns how to apply interactive behaviors, create forms and optimize a web site for publishing.

INFO 1318 Fireworks I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1311
This course teaches the student to create, modify and optimize graphics for use on web sites. The student creates and optimizes basic web graphic content, which includes banners, buttons, background images and advertisements. The Fireworks tools are explored while creating vector graphics, editing bitmap graphics, working with layers, creating image rollovers, slicing images, creating image maps and optimizing and exporting graphics. How to plan and create animated GIF images is also covered.

INFO 1319 Flash I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1318
Flash is the solution for producing high-impact, vector-based animation and interactivity for web sites. This course teaches the student how to make web sites that are fun, attractive and interactive. The student creates vector graphics, works with timelines, adds visual effects, animates shapes and symbols, imports images and sounds, works with video, creates interactive buttons and more

INFO 1400 Hardware, Disaster Recovery and Troubleshooting **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1120
This course is designed to teach the student how to identify and follow best practices when working with hardware components and systems found in an enterprise environment. Focus is on the hardware and software used to create a fault-tolerant, redundant configuration that meets the requirements of a company's Disaster Recovery (DRP) or Business Continuity Plan (BCP).

INFO 1401 Introduction to Data Center Management **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1023
This course introduces the student to all aspects of a data center and its physical infrastructure. The student learns about data center design, support, management and maintenance while working in a server environment. Topics also include daily operations of a data center, which includes monitoring power requirements and safety regulations.

INFO 1421 Virtualization, Remote Access and Monitoring **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1120
This course introduces the student to both hardware and software methods used to implement virtualization and the server specifications required to implement it. Multiple vendor solutions are explored. The student gets hands-on experience with remote access configuration and monitoring found in today's enterprise IT and data center environments.

INFO 1431 Data Center Racks and Cabling **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1401
This course introduces the student to the basics of rack and cabling infrastructure in a data center. Topics include cabling installation practices management strategies, maintenance practices and certification. The student also learns about rack standards, rack types, rack enclosures and best practices for rack system selection.

INFO 1505 Introduction to Robotics **3 – 4.5 – 4.5**
Prerequisite (1): INFO 1001
This course enables the student to use readily available robotic kits to design, construct and program robots or other mechatronic systems that interact directly with the real world. The student explores the mechanical, electronic and software aspects of these systems.

INFO 1515 Computer Programming for Robotics, Sensing and Control **3 – 4.5 – 4.5**
Prerequisites (2): INFO 1003 and INFO 1505
This course enables the student to design, write and deploy beginning-level software for robotics and other mechatronic applications that interact directly with the real world. The student learns sensing and control functionality and mechanical and electronic aspects of these systems.

INFO 1521 Java Programming I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1003
This course introduces the Java object-oriented programming language. Topics and activities include Java language essentials, writing Java programs in order to solve a variety of basic problems, design and testing techniques, working with arrays and simple data structures, creating basic graphical interfaces using applications and applets and working with input and output files.

INFO 1522 C++ Programming I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1003
This course introduces the C++ programming language. Problem solving using structured design is emphasized. Various features of the C++ language such as conditions, logical expressions, selection control structures, looping, functions and variable scope are covered. The student uses modular programming techniques to solve a variety of problems.

INFO 1523 Visual Basic.NET I **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1003 and INFO 1110
This course introduces the student to programming of the graphical user interface (GUI) using Visual Basic.NET. Emphasis is placed on gaining and understanding of proper design, placement of controls and coding of the GUI. Visual Basic.NET is used to develop applications with graphical windows, create applications that work with databases, create web applications and create applications that display graphics. Visual Basic.NET allows developers to create applications in a relatively short period.

INFO 1524 COBOL I **5 – 0 – 5**
Prerequisite (1): INFO 1003
The student gains experience in using programming techniques with the language of COBOL. The student designs, programs, debugs and tests specified business-oriented problems.

INFO 1525 IBM i RPG Programming I **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1003 and INFO 1112
This course is designed to introduce the student to IBM i RPG. The student learns how to use the RPG specifications to create programs using structured programming techniques. The student codes, compiles and tests RPG programs that process database files and produce reports. This course will also cover any new topics or technology in the IBM i area.

INFO 1526 Visual C# Programming I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1003
This course introduces the student to programming of the graphical user interface (GUI) and console applications of Microsoft C# (C-Sharp) using the current Visual Studio. NET environment. C# is used to develop a variety of applications with graphical, client interfaces and console programs that are used to perform programming tasks. Emphasis is placed on proper windows design, placement of controls and proper coding of the C# programming language for business-type projects. The student must have a thorough knowledge of the Windows environment.

INFO 1531 Java Programming II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1521
This course is a continuation of the Java Programming I course and is designed for the student experienced with Java and object-oriented programming. Topics include additional exception handling, data structures, database access and applications, multimedia, multithreading and Internet/browser applications.

INFO 1532 C++ Programming II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1522
This course is a continuation of the C++ Programming I course. Topics covered include data types, one- and multi-dimensional arrays, lists and strings, records (C++ structs), classes and data abstraction, object-oriented software development, pointers, dynamic data, linked structures and recursion.

INFO 1533 Visual Basic.NET II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1523
This course continues from Visual Basic.NET I with programming in a graphical user interface (GUI) environment using Visual Basic.NET. Continued emphasis is placed on gaining an understanding of proper design, placement of controls and coding of the GUI. More advanced topics will be covered to include database access and management, object-oriented programming using class structures, exception handling and inheritance.

INFO 1534 COBOL II **5 – 0 – 5**
Prerequisites (2): INFO 1524 and INFO 1620
COBOL II is a continuation of COBOL I. The student expands his/her knowledge of COBOL with the advanced techniques this course provides. Topics covered include sorting, sequential file updating, indexed file processing, VSAM files, subprograms, relational databases and embedded SQL.

INFO 1535 IBM i RPG Programming II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1525
This course teaches the student how to use IBM i RPG advanced programming features. The course includes interactive processing, DDS creations for display files, RPG data structures, data areas, DDS for printer files, printer file processing and error handling procedures. New topics or technology in the IBM i area are also covered.

INFO 1536 Visual C# Programming II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1526
This course is a continuation of the Visual C# Programming I course. More advanced topics include XML, database, text and binary file access, datasets and user interfaces.

INFO 1620 Database Design, Implementation and Management **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1003
This course is an introduction to database design, implementation and management. In this course, the basics of database design and manipulation will be covered. Topics include relationships, database normalization, constraints, data modeling, multi-user database architectures, web database design concepts, database administration functions and exploration of various DBMS software products. The student learns how to design and manipulate the database in order to maintain and present data that is accurate, meaningful and supportive in a business environment.

INFO 1700 Introduction to Gaming **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1001
This course introduces the student to gaming concepts. Since designing a great game relies on a lot of thought and planning, the student discusses the process of creating a narrative for a game, traditional story structure, story elements, plot and game story devices. Topics also include application, platform, time interval, player mode, genres and marketing of the game. This hands-on class allows the student to create game experiences by creating rules, using interactive mode and learning the different types of challenges.

INFO 1710 Developing Games and Graphics **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1003 and INFO 1700
The student creates basic computer games employing programming fundamentals. The student explores a variety of virtual worlds while learning object-based programming utilizing graphics, animation and enhanced audio. This course requires a foundation in programming logic but does not require any former programming knowledge or expertise.

INFO 1801 A+ Certified Professional I **4.5 – 0 – 4.5**
This is the first course that will assist the student in taking the CompTIA A+ certification exams (exam numbers 220-601, 220-602) in order to become a CompTIA A+ Certified Professional. The course introduces the student to personal computer hardware and software and presents the fundamental skills and concepts needed on the job as an information technology (IT) technician. Other topics include installation, upgrading, repairing and configuring personal computer hardware and operating systems.

INFO 1802 A+ Certified Professional II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1801
This course is a continuation of INFO 1801. The student is provided with the essential skills and information needed to troubleshoot, optimize and perform preventative maintenance of personal computer hardware and operating systems. This hands-on class prepares the student for the CompTIA A+ Certified Professional certification exam.

INFO 2122 UNIX Scripting I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1111
This course is an introduction to writing shell scripts using Bourne Again Shell (Bash). The student gains hands-on experience in creating and running Bash shell scripts and functions. Bash script techniques include sequential, branching and looping instructions; command substitution; and I/O redirection. The student learns to create new scripts as well as modify existing scripts.

INFO 2135 Networking Infrastructure* **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1023
This course is for support professionals responsible for installing, configuring, managing and supporting a network infrastructure that uses the Microsoft Windows Server 2008 products and are considering becoming Microsoft Certified Technology Specialist (MCTS) and Microsoft Certified IT Professional (MCITP) certified. The focus on network infrastructure configuration gives new and experienced users alike the opportunity to study in depth the core technologies in Windows Server 2008.

**INFO 2135 will substitute for INFO 2130.*

INFO 2142 Windows Active Directory **4.5 – 0 – 4.5**
Prerequisites (1): INFO 2135
This course introduces the student to Windows Server 2008 Active Directory and prepares the student to plan, configure and administer a Windows Server 2008 Active Directory. This server administration courses uses Windows Server 2008 and mapping to the Microsoft Certified Technology Specialist (MCTS) 70-640 certification exam.

INFO 2145 Windows Server Administration **4.5 – 0 – 4.5**
Prerequisite (1): INFO 2142
This course introduces the student to server administration, which includes responsibility for the operations and day-to-day management of an infrastructure of servers for an enterprise organization. Windows server administrators manage the infrastructure, web and IT application servers. This course exposes the student to scripts and batch files, remote administration by using terminal server or administration tools installed on the local workstation. Other topics include managing the server operating system, file and directory services; software distribution and updates; profiling and monitoring assigned servers; and troubleshooting.

INFO 2240 Integrated Microsoft Office **5 – 0 – 5**
Prerequisites (3): INFO 1210, INFO 1212 and INFO 1213
This course focuses on advanced level usage of the Microsoft Office suite of programs including Word, Access, Excel and PowerPoint. The student uses the programs independently as well as integrates features from the Office suite to complete a variety of office documents and tasks, including presentations to the class. In addition, the student uses the Internet to research ideas and find information. It is recommended that the student have extensive experience using the Microsoft Office software mentioned above.

INFO 2241 Business Practices **3 – 0 – 3**
Prerequisites (2): INFO 1001 and English Level I
This course provides the student with the opportunity to acquire knowledge and skills in the area of office practices and to discuss trends, issues and policies of today's business offices. Other course content includes diversity, business etiquette and protocol, decision-making strategies, professional image, business ethics, personal organization, problem-solving techniques, stress management control, communication through body language and sexual harassment.

INFO 2260 Networks, Applications and Technology in the Workplace **4.5 – 0 – 4.5**
Prerequisites (4): INFO 1110, INFO 1210, INFO 1212 and INFO 1213
The student learns concepts such as computer systems, operating systems, networked applications and emerging technologies. This is a hands-on class and should be taken in the last two quarters of degree requirements. The student should already have the skills necessary to create and manipulate files in word processors, spreadsheets and database software.

INFO 2261 Software Application Support **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1120 and INFO 2351
The student installs and uses software applications concentrating on interoperability and meeting specific criteria. Computer management and problem-solving techniques are reviewed. The use of knowledge and incident management software is also included while integrating customer support skills. This hands-on class should be taken in the last two quarters of degree requirements.

INFO 2340 Internet Scripting and Databases **4.5 – 0 – 4.5**
Prerequisites (3): INFO 1003, INFO 1315 and INFO 1620
This course explores various technologies available for utilizing scripts in a Web environment. PHP and JavaScript are among the scripting languages examined. The student learns different methods to connect to multiple databases and uses best practices to maintain database integrity and security.

INFO 2351 Introduction to XML **4.5 – 0 – 4.5**
Prerequisites (3): INFO 1003, INFO 1311 and INFO 1315
This course teaches the student how to retrieve and manage data while constructing well-formed and valid XML documents. The use of document type definitions and XML schema recommendation are also included in this course.

INFO 2362 Web and Server Applications Security **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1023 and INFO 1311
This course examines a variety of communication protocols, the client/server applications that use them and their vulnerabilities. The student explores methods to mitigate vulnerabilities of Internet/Intranet applications while maintaining web servers and development workstations. Discussion centers on best practices, and the student uses a variety of utilities and methodologies to build, test and defend all computers in the enterprise environment.

INFO 2401 Applied Data Center Management **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1401
Using a problem-based learning (PBL) or CASE study approach, the student defines project requirements, researches issues and designs a data center project that meets the goals. Projects include all aspects of the data center such as facilities, infrastructure, servers and security. This course should be taken at the end of study in preparation for the data center management internship.

INFO 2521 Intel Assembly Language I **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1522
The student develops knowledge and abilities in relation to common cross-platform data representations, computer architecture and machine and assembly language principles and techniques. Topics include assembly language directives, operators and program structure. The student uses Intel x86 Assembly Language to develop simple applications.

INFO 2531 Intel Assembly Language II **4.5 – 0 – 4.5**
Prerequisite (1): INFO 2521
This course is a continuation of INFO 2521 and extends the topics and skills. Additional topics include macros to create both system-level software tools and application programs to manipulate computer hardware and to create an interaction between assembly language programs, operating systems (MS Windows, MS-DOS and others) and application programs developed in C++ and other high-level languages.

INFO 2537 Data Structures Using C and C++ **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1532
This course is a continuation of C++ Level II as well as the study and development of programming in the C language. The student is required to program, debug and test specified business applications in C and C++ to include but not be limited to the following topics: data structures such as linked lists, stacks and queues and searching and sorting algorithms. The student learns to program between C and C++ and write programs in both languages to solve a variety of business applications.

INFO 2538 Systems Analysis and Design **4.5 – 0 – 4.5**
Prerequisite (1): INFO 1521, INFO 1522, INFO 1523 or INFO 1524
This course is a hands-on approach to system analysis and design of information systems. The student examines and utilizes formal techniques of developing a start-to-finish project. Tasks include designing the best approach to problem identification, analysis of possible solutions utilizing information gathering techniques and implementation using business rules, data manipulation, data storage and data retrieval. The student researches, writes, analyzes and creates professional reports and documentation to support analysis and design.

INFO 2539 Programming for Wireless 4.5 – 0 – 4.5
While the rapid expansion of wireless technologies such as cell phones and palm pilots offers many new opportunities for businesses and programmers, it also presents numerous challenges related to issues such as security and standardization. This course offers a thorough treatment of both the management and technical aspects of this growing area, including coverage of current practices and future trends. The student researches and reports on topics to include industry and its participants and hardware and software technology in use, as well as security involved with wireless computing. The student reviews computer software used to up/download programs to virtual devices.

INFO 2549 IBM i Control Language Programming 4.5 – 0 – 4.5
Prerequisites (2): INFO 1003 and INFO 1112
This course introduces the student to the IBM i Control Language (CL). The student learns the syntax rules for the commands and how to utilize them in a CL program. Other topics include basic error handling, passing program parameters, file and data areas, message handling, file overrides and command prompting. This course will also cover any new topics or technology in the IBM i area.

INFO 2621 IBM i DB2 Database Management I 4.5 – 0 – 4.5
Prerequisites (2): INFO 1003 and INFO 1112
This course introduces the concepts of the IBM i DB2 database system. The student learns how to define, create and manage database files. An introduction to data modeling and design is also presented. This course also covers any new topics or technology in the IBM i area.

INFO 2630 Structured Query Language (SQL) 4.5 – 0 – 4.5
Prerequisite (1): INFO 1620
This course is designed to give the student the skills needed to access and manipulate data in a relational database management system. Basic through advanced-level SQL commands will be covered. The student explores various DBMS SQL environments.

INFO 2631 IBM i DB2 Database Management II 4.5 – 0 – 4.5
Prerequisite (1): INFO 2621
This course is a continuation of INFO 2621. Topics covered include SQL/400; advanced data management topics such as referential constraints, journaling and commitment control; security issues; and backup and recovery. This course also covers any new topics or technology in the IBM i area.

INFO 2632 Oracle SQL 4.5 – 0 – 4.5
Prerequisite (1): INFO 1620
This course is designed to give the student the skills needed to access and manipulate data in the Oracle database management system. Basic through advanced-level SQL commands are covered. This course is designed for the student pursuing the Oracle Database Systems Certification of Achievement and does not substitute for INFO 2630 in other INFO certificate and degree programs.

INFO 2635 MySQL Programming 4.5 – 0 – 4.5
Prerequisite (1): INFO 2630
This course provides the student with a foundation in programming in the MySQL database environment. The student creates stored program code, triggers and functions; uses built-in MySQL functions; and learns to optimize SQL statements and stored programs.

INFO 2640 Oracle PL/SQL Programming 4.5 – 0 – 4.5
Prerequisite (1): INFO 2630
This course is designed to introduce the student to the PL/SQL procedural programming language to interact with an Oracle database and to support applications in a business environment. The student creates blocks of code using scalar and composite variables and cursors; creates procedures using control and loop structures; learns exception-handling techniques; and creates functions, packages and triggers.

INFO 2641 SQL Server Design and Implementation 4.5 – 0 – 4.5
Prerequisite (1): INFO 2630
This course introduces the student to the SQL server relational database management system. Topics include SQL server architecture, stored procedures and triggers, retrieving and maintaining data used for Transact-SQL and creating database applications. Various SQL server tools are also explored.

INFO 2651 Oracle Database Administration 4.5 – 0 – 4.5
Prerequisite (1): INFO 2640
This course is designed to give the student the knowledge and basic skills needed to set up, maintain and troubleshoot an Oracle database. The course covers the Oracle architecture and its main components. The student learns to startup and shutdown an Oracle database, create a database and manage storage, users and resources. The student participates in hands-on activities to reinforce the concepts learned.

INFO 2740 Oracle Web Application Development 4.5 – 0 – 4.5
Prerequisite (1): INFO 2640
This course is designed to provide the student with advanced skills in Oracle PL/SQL programming and web application development. The student uses PL/SQL, HTML and scripting languages and explores various other development strategies to build web applications that interact with an Oracle database.

INFO 2750 Introduction to Web Application Development 4.5 – 0 – 4.5
Prerequisite (1): INFO 2340
This course examines programming techniques to complete a web-based application using VBScript, JavaScript, PHP and ASP.NET. The student explores methods to implement dynamic web content using client-side and server-side programming and maintaining database security while ensuring valid user interoperability. Discussion centers on best practices and the student uses VBScript, JavaScript, PHP and ASP.NET to implement a finished product.

INFO 2761 Java Servlets and JSP 4.5 – 0 – 4.5
Prerequisites (2): INFO 1521 and INFO 1311
This course introduces the student to the creation and use of Java servlets and Java Server Pages (JSP). The student uses IBM WebSphere Studio and/or Eclipse software to develop web pages utilizing servlets and JSP. The student learns how to interact between HTML, XML and databases with Java.

INFO 2801 Networking Security 4.5 – 0 – 4.5
Prerequisite (1): INFO 2145
This course provides the student with knowledge of network security to include system security, network infrastructure, access control and organizational security. It provides the skills necessary to protect systems and wired and wireless networks from threats, risks and attacks. The student gains proficiency in authentication, assessments, audits and cryptography. This class helps prepare a student for the CompTia Security + certification.

INFO 2805 Network and Information Security Basics 4.5 – 0 – 4.5
This course is a survey of network and information security. Survey of network topics include threat assessment, risk management, establishing and managing network security policy, user training, security models, objectives, architectures and the investigative process. Information security topics such as constitutional issues, applicable laws and rights and rules of evidence will be covered. The class will also discuss confidentiality, integrity, availability, accountability and auditing.

INFO 2806 Network Attacks, Intrusions and Penetration Testing 4.5 – 0 – 4.5
This course covers attack and intrusion methods as well as how to defend against these methods. By studying network security from the point of view of the cracker and hacker, the student gets hands-on exposure to penetration testing, intrusion detection systems (IDS), methods used to circumvent systems, malicious code and its impact on systems and how to defend against them.

INFO 2808 Boundary Protection 4.5 – 0 – 4.5
This course introduces the various methodologies for defending a network. The student focuses on the concepts of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection. Hands-on experience is offered with a variety of hardware and software firewalls including the Cisco PIX firewall.

INFO 2809 Information Systems, Forensics and Legal Topics 4.5 – 0 – 4.5
This course discusses computer forensics concepts, tools and data analysis. The student explores civil and common law issues that apply to information systems and gains practical experience in evidence detection and preservation as well as the concepts of establishing communications with company leadership and investigative agencies.

INFO 2810 Security Planning: Assessment, Analysis and Implementation* 4.5 – 0 – 4.5
This course provides the student with a realistic, hands-on, scenario-based environment to combine and implement the concepts and tools covered in previous classes. The student conducts a risk analysis and threat assessment and completes a security plan that includes auditing, monitoring, incident response, forensics and penetration testing. This course is to be taken after the other five security courses or experience in their topics.

**INFO 2810 is the capstone class for Network Security diploma. This class should be taken last as it will encompass the concepts, processes and experience gained from the previous security classes.*

INFO 2900 Special Topics in INFO Variable
This course permits instruction in special content areas not included in other courses of the Information Technology Program.

INFO 2940 Database/ Web Programming Capstone* 4.5 – 0 – 4.5
Prerequisite (1): Instructor approval
This course gives the student the opportunity to integrate the skills and knowledge acquired throughout the Information Technology curriculum. The student develops, manages and executes a programming project from conception to delivery for production. This is the final course for the Programming for Database/Web Program.

**This course should be taken during the final quarter of program completion.*

INFO 2941 e-Commerce Capstone* **4.5 – 0 – 4.5**
Prerequisite (1): Instructor approval
This course gives the student the opportunity to integrate the skills and knowledge acquired throughout the Information Technology curriculum. The student develops, manages and executes a project from conception to delivery for production. This is the final course for the e-Commerce Program. (Cross-listed as BSAD 2941)

> **INFO 2941 is the final course for the E-Commerce Program. The student should have completed all of the general education, major and concentration requirements before enrolling in this course.*

INFO 2942 Networking Capstone* **4.5 – 0 – 4.5**
Prerequisites (2): INFO 2261 and INFO 2801
This is a capstone course where the student applies the knowledge gained in previous classes to explore and implement problem-solving techniques and approaches that lead to solutions for hardware and software problems in a simulated work environment. The student works with other students to coordinate, document and implement solutions for other INFO capstone courses. The student communicates and works in multiple settings since some students may be working from remote locations. All solutions are implemented using a virtual server environment.

> ** This is a hands-on course and should be taken during the last two quarters of degree requirements.*

INFO 2943 IBM i Control Language for Application Development **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1535 and INFO 2549
This course is a final project course to capstone the IBM i degree requirements. The student completes an assigned project that incorporates RPG programming, database management and development and CL programming. It is recommended that INFO 2631 be taken either before or at the same time as INFO 2810. This course also covers any new topics and new technology in the IBM i area.

INFO 2944 Web Development Capstone* **4.5 – 0 – 4.5**
Prerequisite (1): Instructor approval
This course gives the student the opportunity to integrate the skills and knowledge acquired throughout the web curriculum. The student develops, manages and executes a web project from concept to completion.

> **This course should be taken during the final quarter of program completion.*

INFO 2945 Database Design and Administration Capstone **4.5 – 0 – 4.5**
Prerequisite (1): Instructor approval
This course gives the student the opportunity to integrate the skills and knowledge acquired throughout the database curriculum. The student develops, manages and executes a database project from conception to delivery for production. This is the final course for the Database Administration Program.

INFO 2981 Internship **Variable**
The internship provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested students must contact his/her faculty advisor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

INFO 2982 Microsoft Office Simulation **4 – 0 – 4**
Prerequisite (1): INFO 2240
This course is a capstone course for the student who plans to work in an office environment. The student works individually and collaboratively as a team member learning to analyze and manipulate data, prepare mailable materials and determine appropriate media through which to communicate. Microsoft Office Professional Suite is used for this simulation as well as an operating network.

INFO 2983 Helpdesk Capstone **4.5 – 0 – 4.5**
Prerequisites (2): INFO 1240 and INFO 2261
This course emulates common issues and situations found in the helpdesk or IT support environment. The student extracts data from common user interfaces such as web, email, phone and in-person contact; evaluates necessary actions; and follows through to user resolution. Extensive use of knowledge and incident management software is included. Discussions center on appropriate methods to deal with customers in a professional manner while extracting data necessary for resolution or elevation to upper-level IT support personnel.

INFO 2984 IT Student Assistant **Variable**
Prerequisite (1): Instructor approval
This course provides practical experience for the student majoring in one of the Information Technology programs. The student applies the knowledge and skills gained in previous classes to assist other students in a lab setting. Tasks assigned are based on the student's major of study.

INFO 2985 Call Center Practicum I **4 – 0 – 4**
Prerequisite (1): INFO 1226
This course allows for advanced development of the technical and soft skills needed for success in the call center industry. The student combines call center job shadowing, classroom simulated practice and advanced projects to ensure readiness for the on-site practicum.

INFO 2986 Call Center Practicum II **4 – 0 – 4**
Prerequisite (1): INFO 2985
This capstone course provides the student with the opportunity to apply skills learned from previous coursework to participate as an on-site customer service representative in a controlled call center environment.

INFO 2990 Data Center Management Internship* **4.5 – 0 – 4.5**
Prerequisite (1): INFO 2401
The course provides the student with the opportunity to apply his/her knowledge, learn new techniques and get hands-on experience managing a data center. The student works in the Information Technology Data Center at the Fremont Area Center, as well as accessing the data center remotely at times during the quarter. The student works directly under that direction of an assigned instructor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

**This course should be taken in the student's last quarter.*

INSURANCE (INSU)

INSU 1000 Principles of Health and Life Insurance **4.5 – 0 – 4.5**
This is a comprehensive survey of the technical and socioeconomic aspects of the life and health insurance business including coverages, marketing, underwriting, pricing, funding alternatives, contracts, claims, program design concepts and administrative systems and procedures are included.

INSU 1100 Principles of Property and Casualty Insurance **4.5 – 0 – 4.5**
This course serves as an introduction to the field of property and casualty insurance and the needs of individuals or organizations for various categories of protection. Areas of emphasis include fire, accident, theft, property damage and liability insurance and the legal environment of insurance products. The student is also introduced to the basic concepts of product design, underwriting, pricing, marketing and claim administration. (Cross-listed as FINA 1100)

INSU 2421 Insurance Law **4.5 – 0 – 4.5**
A study of laws and state regulation of insurance, including the insurance contract, the role of insurance agents, insurable interest, insurer's defenses, forfeiture and exclusion of risk, election and waiver, no-fault statutes and the various types of insurance are completed. (Cross-listed as LAWS 2421)

INSU 2900 Special Topics in Insurance **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas that are not included in other insurance courses.

INTERIOR DESIGN (INTD)

The ability to visualize from written text is related to student success in the design profession.

INTD 1100 Illustration Techniques for Interiors **2 – 3 – 3**
This course teaches basic skills in using equipment and interpreting the symbols and language used in illustrating interiors and furniture in plan, elevation and perspective.

INTD 1210 Interior Design I **4.5 – 0 – 4.5**
Prerequisite (1): INTD 1110 or concurrent enrollment
This course is an introduction to the basic concepts of visual perception and the elements and principles of composition. Emphasis is placed on selecting, arranging and ordering design elements to achieve aesthetic and functional interior spaces. Experimental projects are assigned to be completed in a variety of design techniques.

INTD 1220 Interior Design II **4.5 – 0 – 4.5**
Prerequisite (1): INTD 1210
This course is a study of the knowledge, judgment skills and application skills necessary for identifying, coordinating, arranging and calculating the need requirements of the following components of interior design: furniture, window treatments, wall and ceiling surfaces, flooring and lighting. Portfolio items are developed by drafting and art techniques.

INTD 1230 Interior Design III **2 – 3 – 3**
Prerequisite (1): INTD 1220
This course includes a study of the principles and application skills involved in determining space needs from the following space classification: group spaces, private spaces and support spaces.

INTD 1260 Color Theory **4 – 1.5 – 4.5**
This course is a study of the principles of color and application theories. Color relationships and application to various interior environments are explored through class application projects. Projects use a variety of techniques to develop assigned problems.

INTD 1310 Fundamentals of Textiles **4.5 – 0 – 4.5**
This course features an introductory study of the field of textiles that includes the knowledge and understanding of fibers, yarn, fabric construction, finishes and color and design techniques used to create a textile product. Emphasis is placed on identifying the characteristics of each component and how these affect the possibilities and limitations of the product when used in a given design problem.

INTD 1320 Interior Finishes and Materials **4.5 – 0 – 4.5**

Prerequisite (1): INTD 1310

This course applies knowledge and understanding of materials and interior products through the use of sampling techniques. The goal is to develop hands-on skills in specifying textiles and materials for functional and aesthetic residential and commercial interiors.

INTD 1410 History of Architecture and Interiors **4.5 – 0 – 4.5**

This course is a study of the architecture, ornament and interior styles from antiquities to modern. The student becomes familiar with the various styles, their basic respective characteristics and their relationship to interior environments.

INTD 1420 History of Furniture **4.5 – 0 – 4.5**

This course is a study of furniture styles from antiquities to modern. The student will become familiar with various historical movements or periods in furniture design and gain ability to recognize characteristics within each style.

INTD 2100 Room Rendering **3 – 4.5 – 4.5**

Prerequisite (1): INTD 1230

The student examines the purpose and principles of developing one-point and two-point perspective renderings of interior space from correlated space planning projects and sample boards. Portfolio items are created by drafting, art techniques and computer.

INTD 2250 Commercial Design **3 – 3 – 4**

Prerequisite (1): INTD 1230

This course is an introduction to the study of commercial interior design. Consideration is given to special needs and specifications for commercial interiors that are demonstrated by continued development of individual portfolio items.

INTD 2520 Professional Practice **3 – 0 – 3**

Prerequisite (1): INTD 1320

This course includes responsibilities and duties of the professional designer and assistant in business procedures. Upon completion of the course, the student is able to identify and compare trade sources and ordering and receiving procedures for residential and non-residential business.

INTD 2900 Special Topics in Interior Design **Variable**

Prerequisites (1): Completion of 30 or more hours in the Interior Design Program

This course permits instruction in special content areas not included in other courses of the Interior Design Assistant Program.

INTD 2940 Interior Design IV **2 – 3 – 3**

Prerequisite (1): INTD 1230

This capstone course stresses development and refinement of portfolio elements into a presentation-ready package. Résumé and interview skills for entry-level interior design work is also emphasized. Students will also refine interior design skills through more specialized and detailed space planning projects.

INTD 2981 Internship **0 – 120 – 3**

Prerequisites (1): Completion of 30 or more hours in the Interior Design Program

The student is given the opportunity to observe and/or take part in the total design, sales and business follow-through involved in a design job; observe availability of products and the proper application to design; and gain experience in working with people. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

JAPANESE (JAPN)

JAPN 1010 Beginning Japanese I **7.5 – 0 – 7.5**

In this course, the student learns basic skills in Japanese language: comprehension, pronunciation, speaking, listening, vocabulary and reading and writing the hiragana and katakana scripts and 100 basic kanji characters. The student is introduced to the basic grammatical structures and vocabulary of Japanese with an emphasis on developing proficiency in speaking and listening.

JAPN 1020 Beginning Japanese II **7.5 – 0 – 7.5**

Prerequisite (1): JAPN 1010 or its equivalent

This course is a continuation of JAPN 1010 focusing on the fundamentals of Japanese language with additional emphasis on reading and introduction of 200 additional kanji characters.

JAPN 2010 Intermediate Japanese I **4.5 – 0 – 4.5**

Prerequisite (1): JAPN 1020 or its equivalent

This course is the first of four sequential quarter classes that are comprised of a traditional second-year college Japanese course. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension and vocabulary.

JAPN 2020 Intermediate Japanese II **4.5 – 0 – 4.5**

Prerequisite (1): JAPN 2010 or its equivalent

This course is the second of four sequential quarter classes that are comprised of a traditional second-year college Japanese course. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension and vocabulary.

JAPN 2030 Intermediate Japanese III **4.5 – 0 – 4.5**

Prerequisite (1): JAPN 2020 or its equivalent

This course is the third of four sequential quarter classes that are comprised of a traditional second-year college Japanese course. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension and vocabulary.

JAPN 2040 Intermediate Japanese IV 4.5 – 0 – 4.5
Prerequisite (1): JAPN 2030 or its equivalent
This course is the final of four sequential quarter classes that are comprised of a traditional second-year college Japanese course. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension and vocabulary.

JAPN 2900 Special Topics in Japanese Variable
Prerequisite (1): Instructor approval
Topics not normally addressed in Japanese courses may be offered in JAPN 2900. Examples include advanced grammar, intensive conversation and pronunciation, business practices, culture and customs.

LANGUAGES (LANG)

LANG 1100 Omaha Tribal Language 4.5 – 0 – 4.5
This is a beginning course that introduces students to the basic phonetic structure of the Omaha Tribal Language. An approach called Total Physical Response (TPR) will be utilized in class, which includes speaking, listening and action (whole body movement). Omaha tribal tradition, customs and values will be woven into classroom content. A field trip to attend a tribal ceremony will integrate content of course description.

LEGAL STUDIES (LAWS)

LAWS 1100 The Paralegal Profession 4.5 – 0 – 4.5
A survey of the legal environment including law office procedures, duties and limitations of paralegals, professional responsibilities and expectations, interpretation of statutes and regulations, client relationships, legal ethics and confidentiality are studied. There is also focus on drafting projects featuring WordPerfect software.

LAWS 1101 Introduction to Law 4.5 – 0 – 4.5
This course includes an overview of the fields of law and their history, the areas of law applicable to the paralegal, basic legal principles, legal terminology, the judicial system, legislation, criminal versus civil procedures and the elements of a trial.

LAWS 1110 Litigation 4.5 – 0 – 4.5
Prerequisites (2): Admission to Paralegal Program and LAWS 1100 or Pre-Law major
A survey of the process of pursuing a civil action through the legal system is studied. Topics covered include choice of courts, jurisdiction, venue, pleadings and related motions, discovery, pretrial actions and preparation and trial and appellate procedures. Emphasis is on the paralegal's role in gathering and organizing materials, interviewing and investigating, drafting complaints, answering interrogatories, pleadings and the trial notebook featuring WordPerfect software and assisting during the trial.

LAWS 1111 Microsoft Word for the Law Office 4.5 – 0 – 4.5
Prerequisite (1): INFO 1001
Students learn basic and advanced Microsoft Word features and functions to create, edit, store and maintain common legal and business documents. This course focuses on practical word processing in legal organizations, emphasizing methods to help paralegals and others who work with computers in a legal environment to become more efficient and productive.

LAWS 1230 Legal Research and Writing I 4.5 – 0 – 4.5
Prerequisites (4): ENGL 1010, ENGL 1020, LAWS 1101 and LAWS 1110 or instructor approval
The student is introduced to the types of research sources including computer-aided legal research, procedures and case documentation for which the paralegal is typically responsible. The student learns to develop written memoranda and legal documents for attorneys based on their research featuring WordPerfect software.

LAWS 2240 Legal Research and Writing II 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1230
The student continues to develop knowledge of the various legal research tools along with greater emphasis on computer-aided legal research, development of legal writing techniques, principles of editing and preparation of legal briefs.

LAWS 2320 Torts 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
Torts is a study of the concept of legal wrongs and their treatment in law to include the intentional torts, negligence and strict liability as applied to persons, property and business. Specific topics considered include assault and battery, false imprisonment, invasion of privacy, trespasses, breach of contract, contributory negligence, assumption of risk, no-fault systems and workers' compensation.

LAWS 2321 Legal Remedies 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
This is a study of legal and equitable remedies available for the redress of legal injuries suffered by litigants, including election of remedies, to include the concepts of damages, computation of damages, specific performance, accountings and injunctive relief.

LAWS 2322 Family Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
Family Law is a study of law affecting family-related matters such as divorce, separation, child custody/support, adoption, guardianship and legal rights of women.

LAWS 2323 Employment Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
This includes a study of laws, regulations and agencies governing employment practices, discrimination, labor unions, child labor, employee benefits, occupation safety and health, equal employment, opportunity and affirmative action.

LAWS 2324 Criminal Law and Procedure 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
History and philosophy of criminal law, including the definition and classification of crimes and the criminal justice system; constitutional limitations; and criminal procedure and its sources, application and impact in criminal law are researched.

LAWS 2325 Bankruptcy, Credit and Collections Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
A study of the laws governing bankruptcy acts, voluntary and involuntary petitions, liens, preferences, powers of trustee, rights of debtors and creditors, liquidations, the discharge of bankruptcy and legal avenues for collection of debts including garnishments and seizures is reviewed.

LAWS 2326 Evidence and Discovery 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
This includes an examination of the rules governing admissibility of evidence that must be followed in the examination of witnesses and in the production of documents including the concepts of relevance, expert witness, hearsay, materiality and privilege. Also studied are the tools and procedures of pre-trial discovery including depositions, interrogatories, production of documents, physical/mental examinations and requests for admissions.

LAWS 2327 Immigration Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
Immigration Law covers both employment-related immigration as well as family-based immigration. The course introduces the student to the process, the federal forms used, the interpretation of the laws covering the immigration procedural and substantive laws.

LAWS 2420 Estate Administration 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
This course is a study of the law pertinent to wills, estates and trusts including intestate succession, codicils, probate, types of trusts and duties of trustees.

LAWS 2421 Insurance Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
This is a study of laws and state regulation of insurance, including the insurance contract, the role of insurance agents, insurable interest, insurer's defenses, forfeiture and exclusion of risk, election and waiver, no-fault statutes and the various types of insurance. (Cross-listed as INSU 2421)

LAWS 2422 Law of Corporations 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110 or BSAD 1100
A study of the laws governing formation, structure, regulation and dissolution of corporations, including shareholder and director liability; types of financial structure; takeovers, mergers and acquisitions; foreign existence and operation; and comparison of the corporate structure with other business entities is conducted in this course. Emphasis is on the legal assistant's role in gathering facts, organizing data and drafting documents typically encountered in the corporate environment.

LAWS 2423 Elder Law 4.5 – 0 – 4.5
Prerequisite (1): LAWS 1110
Elder Law studies the law and policy related to aging individuals and an older society in terms of age discrimination; history, eligibility and benefits of Social Security, supplemental Social Security and private pension programs; healthcare; long-term care; housing; property management; advance directive, powers of attorney and other forms of substitute decision making; conservatorships and guardianship; and elder abuse, neglect and crime.

LAWS 2900 Special Topics in Legal Studies Variable
Prerequisites (1): Instructor approval
This course permits instruction in special content areas that are not appropriately treated in other legal studies courses.

LAWS 2981 Internship I 0 – 20 – 4
Prerequisites (2): LAWS 1230 and instructor approval
The student begins work in a law office or other organization where he/she will work under the supervision of an attorney. A variety of work assignments will include such items as digesting depositions, organizing documents for discovery, drafting filings and pleadings and reporting the status of cases. The student keeps a notebook to log the kinds of tasks performed. Notebook entries are periodically reviewed by both the work supervisor and the Legal Studies program coordinator to assure that competencies appropriate to the role of the paralegal are being developed. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

LAWS 2982 Internship II 0 – 20 – 4
Prerequisites (3): LAWS 2240, LAWS 2981 and instructor approval
During this internship, the student continues to work under the supervision of an attorney and to record tasks in a notebook. Work assignments become progressively more difficult and the student is expected to expand the range of his/her competencies and corresponding abilities to work independently with less supervision and assistance. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

MATHEMATICS (MATH)

In order to register for a Math course at MCC, every student must provide ACT/SAT scores or take the Math Assessment Test. Contact one of the Testing Centers—Elkhorn Valley Campus (402) 289-1278, Fort Omaha Campus (402) 457-2204 or South Omaha Campus (402) 738-4613—to make an appointment to take the test. For times or other locations, log on to www.mccneb.edu/testing.

Prior to taking the assessment test, the student should brush up on his/her math skills. Contact MCC's Math Centers for assistance: Elkhorn Valley Campus (402) 289-1436, Fort Omaha Campus (402) 457-2475, South Omaha Campus (402) 738-4531, Fremont Area Center (402) 317-3040 or Sarpy Center (402) 537-3864. For room locations and hours of operation, log on to www.mccneb.edu/mathcenter.

Excellent resources are available to brush-up in math areas for basic math, introduction to algebra and/or intermediate algebra assessment preparation. A student can drop in at the Math Centers to use these resources for practice or review to prepare for the assessment test.

Students wishing to attempt an online or hybrid math class should refer to the online course web site to see if they have the required skills to work in an online environment. www.mccneb.edu/elearning.

Math courses require a heavy time commitment. The student should be certain he/she has adequate time available to work on these courses in addition to the scheduled class period.

It is best to take math courses in consecutive quarters, if possible, so that continuity of material is not lost.

MATH 0900 Basic Arithmetic **3 – 0 – 3**
Prerequisite (1): MCC Placement Test
Study skills for mathematics, student learning styles and math anxiety will be addressed in this course. Required topics include operations with whole numbers, properties of the real number system and an introduction to fractions.

MATH 0910 Developmental Mathematics **5 – 0 – 5**
Prerequisite (1): MATH 0900 or MCC Placement Test
Basic computational skills are presented for either review or initial mastery by the student. Required topics include fractions; decimals; the solution of ratio, proportion and percent problems; operations with integers; basic study skills for mathematics problem solving; and estimation. Topics may also include geometry, measurement and basic algebraic concepts.

MATH 0920 Beginning Algebra Part 1 **3 – 0 – 3**
Prerequisite (1): MATH 0910 or MCC Placement Test
This course is designed for the student who needs to learn basic algebra skills. Required topics include positive and negative real numbers, solving linear equations and inequalities and applications of linear equations.

MATH 0921 Beginning Algebra Part 2 **5 – 0 – 5**
Prerequisite (1): MATH 0920 or MCC Placement Test
This course begins with a review of solving linear equations and their applications. Required topics include integer exponents, operations with polynomials, factoring, rational expressions, equations of lines and graphing of equations and inequalities.

MATH 0960 Accelerated Beginning Algebra **6 – 0 – 6**
Prerequisite (1): MATH 0910, MATH 0920 or MCC Placement Test
This course is designed for the student who needs to review basic algebra skills. It is a fast-paced course that contains all of the content of both MATH 0920 Beginning Algebra Part 1 and MATH 0921 Beginning Algebra Part 2 in a single course. Topics include positive and negative real numbers, solving linear equations and inequalities along with their applications, integer exponents, operations with polynomials, factoring, rational expressions, equations of lines and graphing of equations and inequalities.

Developmental-level math courses are provided as a service to help prepare for 1000-level math courses. These courses carry credit for use at MCC only; the credit does not transfer nor does it apply toward graduation.

MATH 1220 Business Mathematics* **4.5 – 0 – 4.5**
Prerequisite (1): MATH 0910 or MCC Placement Test
This course is directed toward the development and application of the mathematics skills needed to solve problems related to business occupations. Topics include but are not limited to percentages, checking accounts and services, payroll, payroll taxes, cash and trade discounts, markdowns, property and sales taxes, simple and compound interest, installment purchases, loan payment plans and annuities.

MATH 1240 Applied Mathematics* **4.5 – 0 – 4.5**
Prerequisite (1): MATH 0910 or MCC Placement Test
This course is directed toward the development and application of the mathematical skills needed to solve problems related to industrial occupations. Topics include applications of arithmetic skills, measurement and elementary algebra, geometry and trigonometry.

> **MATH 1220 and MATH 1240 do not require MATH 0920, 0921 or 0960 as a prerequisite. MATH 0910 skills are necessary, however.*
>
> *These math courses satisfy the math requirements in certain programs only. Check to see what the program advises to fulfill the general education math requirement. In most cases, these courses will not transfer to other institutions as math credit.*

MATH 1260 Geometry **4.5 – 0 – 4.5**
Prerequisite (1): MATH 0920 or higher or MCC Placement Test
Geometric topics of logic, measurement, plane figure relationships and figures in space are presented in this course.

MATH 1310 Intermediate Algebra **4.5 – 0 – 4.5**
Prerequisite (1): MATH 0921, MATH 0960 or MCC Placement Test
Basic algebra skills are extended in this course to provide the background necessary for further mathematics courses. Topics included are linear, quadratic, polynomial, radical and rational equations; systems of linear equations; rational exponents and polynomial factoring; rational and radical expressions; complex numbers; and graphs of linear and quadratic functions.

MATH 1410 Statistics **4.5 – 0 – 4.5**
Prerequisite (1): Successful completion of MATH 1310 with a grade of C or better or MCC Placement Test
This course provides an opportunity for the student to develop critical and functional understanding of data. Topics include frequency distributions, measures of central tendency and dispersion, probability and probability distribution, sampling concepts, estimating means and percentages and hypothesis testing.

MATH 1420 College Algebra* **5 – 0 – 5**
Prerequisite (1): Successful completion of MATH 1310 with a grade of C or better, placement via ACT or MCC Placement Test within one year of taking MATH 1420
This course covers advanced algebra topics that include rational expressions; solving quadratic, rational, radical and polynomial equations; relations and functions; quadratic and polynomial functions; systems of equations and inequalities; exponential and logarithmic functions; and matrices.

MATH 1430 Trigonometry* **4.5 – 0 – 4.5**
Prerequisite (1): Successful completion of MATH 1310 with a grade of C or better or MCC Placement Test
Topics include trigonometric ratios, triangles, vectors, circular functions, trigonometric identities, trigonometric equations and complex numbers.

MATH 2410 Calculus I* **7.5 – 0 – 7.5**
Prerequisites (2): Successful completion of MATH 1420 and MATH 1430 with a grade of C or better in both courses or MCC Placement Test
Calculus studies the mathematical tools used to analyze the continuous rate of change between variables. The course reviews some principles of pre-calculus and investigates limits, differentiation and integration. Applications of both differentiation and integration are studied.

> **Grades of C or better in MATH 1420 and MATH 1430 are prerequisites for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that a student enroll in MATH 1420 prior to enrolling in MATH 1430.*

MATH 2411 Calculus II **7.5 – 0 – 7.5**
Prerequisite (1): MATH 2410
Topics include logarithmic, exponential, inverse trigonometric and hyperbolic functions with their derivatives and related integrals. Techniques of integration, improper integrals and infinite series are also included. Polar coordinates are discussed and related to calculus.

MATH 2412 Calculus III **6 – 0 – 6**
Prerequisite (1): MATH 2411
Topics include polar, cylindrical and spherical coordinates. Parametric equations and vectors in the plane and in space, including solid analytic geometry, are covered. Vector-valued functions, functions of several variables and multiple integration are also included.

MATH 2510 Differential Equations **4.5 – 0 – 4.5**
Prerequisite (1): MATH 2412
This course covers solutions for first- and second-order ordinary differential equations and first-order non-linear differential equations with applications. Power series, Fourier series and Laplace Transform Methods will also be covered.

MATH 2900 Special Topics in Mathematics **4.5 – 0 – 4.5**
Prerequisites (1): Varies with topic
Various topics not covered in other Mathematics courses may be offered depending upon interest and relevancy to curriculum. Such topics as applied statistics, discrete mathematics or number theory may be presented in this format.

MECHANICAL DESIGN TECHNOLOGY (DRAF)

DRAF 1100 AutoCAD Fundamentals* 9 – 0 – 9
This course introduces the student to computer-aided design methods using AutoCAD software. Drawing techniques and terminology using ANSI standards, text creation and editing, dimensioning, AutoCAD menus, file management, plotting and drawing/display commands are covered. Other AutoCAD commands include model space and layout, viewports, polylines and use of attributes.

> **Students can take any design course after successful completion of AutoCAD Fundamentals. Design courses are DRAF 1200, DRAF 1400, DRAF 2200 and DRAF 2400.*

DRAF 1200 Design for Precision (Measurement) 9 – 0 – 9
Prerequisite (1): DRAF 1100
Dimensioning techniques are presented that apply to manufactured products. Geometric dimensioning and tolerancing are introduced and used in the selection and application of dimensions. The micrometer, caliper and other precise measuring instruments are employed to measure actual manufactured products. Fits and allowances and current ANSI standards are examined. Lab assignments are completed using CAD software.

DRAF 1300 Inventor Fundamentals 9 – 0 – 9
This course provides the student with an understanding of the features and functions of Inventor software. Principles of solids modeling and parametric design are examined. Complex part modeling techniques, drawing view creating and editing and assembly modeling are covered. Annotations, dimensions, tables and bills of material are also covered. This is a hands-on project-based course.

DRAF 1400 Manufacturing Process Design 9 – 0 – 9
Prerequisite (1): DRAF 1100
The design process is examined as it relates to manufactured products. The student will also examine the materials and processes found in the manufacturing industry. They will study the properties and processing of metals including machining, welding, forging, casting and forming. Working with prototypes will be emphasized as well. Drawings are completed using the CAD system.

DRAF 2100 SolidWorks Fundamentals 9 – 0 – 9
In this course, the student uses SolidWorks, a parametric solid modeling and rendering software, to model parts, drawings and assemblies. Among the features covered will be sweep, loft, extrude and revolve. Also featured will be top-down assembly modeling. This is a hands-on project-based course.

DRAF 2200 Machine Design Principles 9 – 0 – 9
Prerequisite (1): DRAF 1100
Detail and assembly drawings are completed on the CAD system with regard to the numerous design considerations found in machine controls, power transmissions, seals, gears and mechanical linkages. Design considerations are also looked at as they pertain to mechanisms that change speed and movement of various industrial machines. The student uses CAD software to draw, design and analyze the mechanisms.

DRAF 2300 Pro/ENGINEER Fundamentals 9 – 0 – 9
This course examines the principles of solids modeling and parametric design using Pro/ENGINEER software. Also covered are an understanding of part modeling, assembling modeling, management and troubleshooting. Views, assembly drawings, dimension and notes, tables, symbols, bills of material and drawings of complex assemblies are covered. This is a hands-on project-based course.

DRAF 2400 Tool Design Processes 9 – 0 – 9
Prerequisite (1): DRAF 1100
Included in this course is a comprehensive study of the principles of the design for jigs and fixtures, dies and gages. A study of tool steel and other materials is also examined. Use of standard components, vendor catalogs, handbooks and the CAD system are also required.

DRAF 2900 Special Topics in DRAF Variable
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other courses in the Mechanical Design Technology Program.

DRAF 2981 Internship Variable
Prerequisite (1): Instructor approval
The internship program provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested student must contact his/her faculty advisor or the appropriate academic dean. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

MUSIC (MUSC)

MUSC 1010 Introduction to Music I 4.5 – 0 – 4.5
This course surveys music—its elements, composers, instruments, terminology, styles and forms—from antiquity to 1800, providing a broad exposure for those unacquainted with the art of music.

MUSC 1020 Introduction to Music II 4.5 – 0 – 4.5
This course surveys music from 1800 to the present including compositions representative of blues, jazz, rock and contemporary forms. Music of non-western cultures is examined as well. (Formerly MUS 102)

MUSC 1050 Music Appreciation **4.5 – 0 – 4.5**
The student with no prior formal musical education learns to become an informed listener as he/she learns basic elements of music such as rhythm, melody and harmony and advanced concepts such as meaning and style.

MUSC 1110 Music Fundamentals I **4.5 – 0 – 4.5**
Musical notation and the musical elements of pitch, melody, rhythm, harmony and form are taught for the student unacquainted with the language of music.

MUSC 1120 Music Fundamentals II **4.5 – 0 – 4.5**
Prerequisite (1): MUSC 1110
This course is a continuation of Music Fundamentals I (MUSC 1110). MUSC 1120 builds on the musical terminology and basic music concepts of MUSC 1110 and requires the student to apply them in transposition, composition and performance. The course also focuses on ear-training. Listening examples are used to assist the students in developing a musically trained ear.

MUSC 1210 Ear Training I **4.5 – 0 – 4.5**
Prerequisite (1): MUSC 1110 or instructor approval
This course is designed to develop the skills necessary to identify and notate melody, rhythm, bass lines, chords, chord progressions and intervals associated with music of various genres.

NURSING (NURS)

NURS 1110 Adult Nursing I **3 – 9 – 6**
Prerequisites (4): CHEM 1010, ENGL 1010, MATH 1310 and PSYC 1120
This adult medical surgical course introduces the student to basic concepts of client care. The concepts of psychosocial and physiologic aspects of aging will be presented with an emphasis on caring for the institutionalized elderly client and caring for the surgical client. Concepts on the musculoskeletal, peripheral vascular system, eye, ear, nose and throat will be introduced. This course includes didactic and a clinical component.

NURS 1120 Adult Nursing II **4 – 12 – 8**
Prerequisites (4): NURS 1110, NURS 1510, NURS 1200 and NURS 1300
In Adult Nursing II, cardiovascular disorders, respiratory disorders, cancer and hematologic and lymphatic disorders are presented. Gastrointestinal diseases are discussed along with disorders of the male and female reproductive system and sexually transmitted diseases. This course includes didactic and a clinical component.

NURS 1130 Adult Nursing III **5 – 10.5 – 8.5**
Prerequisites (6): NURS 1110, NURS 1120, NURS 1510, NURS 1200, NURS 1300 and NURS 1950
In Adult Nursing III, there is a continuation of study of the nursing care and interventions provided for a client with a specific disease process occurring in the following systems of the body: neurological system, endocrine system, fluids and electrolyte, the renal system and acid base balance. Use of the nursing process continues to be an integral part of the course. Content on professional issues including leadership concepts is discussed. This course includes didactic and a clinical component.

NURS 1200 Professional Role of the Nurse I **1 – 0 – 1**
Prerequisite (4): CHEM 1010, ENGL 1010, MATH 1310 and PSYC 1120
This course is designed to assist the student in identifying the role of the nurse as a member of the health team. The history of nursing, legal and ethical concepts, cultural influences, the nursing process, communication, fundamentals of the teaching and learning process and the healthcare delivery system are emphasized.

NURS 1300 Mental Health Nursing I **1 – 0 – 1**
Prerequisite (4): CHEM 1010, ENGL 1010, MATH 1310 and PSYC 1120
This course is designed to acquaint the student with the concept of mental health as well as alterations in mental health. Topics covered will include a review of select developmental theories and stages of the life cycle. Stress, specific anxiety disorders, defense mechanisms, specific mental health alterations and current treatments, abuses, eating disorders, spirituality, death and grief will be explored.

NURS 1400 Family Nursing I **2 – 3 – 3**
Prerequisites (5): NURS 1110, NURS 1120, NURS 1300, NURS 1510 and NURS 1950
This course focuses on the common health and wellness needs of individuals in the child-bearing and childrearing years. Topics include the pregnancy process and concepts of maternal/child nursing as it relates to facilitation of the attainment of health and wellness for the ante-partum, intra-partum, post-partum and normal newborn. Normal growth and development and select health problems from infancy through adolescence are discussed. This course includes didactic and a clinical component.

NURS 1510 Concepts of Health Assessment and Therapeutic Interventions I **2.5 – 3 – 3.5**
Prerequisite (4): CHEM 1010, ENGL 1010, MATH 1310 and PSYC 1120
This course is designed to assist the student in establishing a foundation for providing basic nursing care to the adult client. It introduces physical assessment and evidence-based practice to select nursing skills. Comprehension of underlying principles and mastery of skills will be demonstrated in the lab setting.

NURS 1950 Pharmacology **4 – 0 – 4**
Prerequisites (4): NURS 1110, NURS 1200, NURS 1300 and NURS 1510
This course is designed to assist the student in developing an understanding of how drugs assist the client with health alterations to attain or maintain optimum health. The nursing process is an integral component of this course.

NURS 2140 Adult Nursing IV **3.5 – 4.5 – 5**
Prerequisites (4): Successful completion of LPN licensure, NURS 2210, NURS 2410 and NURS 2520
Adult Nursing IV is a continuation and advancement of pathophysiological manifestations, treatment modalities and nursing interventions through utilization of the critical-thinking process and subsequent safe-decision outcomes. A critical component is included in this course.

NURS 2150 Adult Nursing V **3 – 6 – 5**
Prerequisites (3): Successful completion of LPN licensure, NURS 2140 and NURS 2310
Adult Nursing V is a continuation and advancement of previous content and includes the following content areas as well as treatment modalities and nursing interventions: perioperative nursing, emergency, trauma, mass casualty, neurological disorders, musculoskeletal and connective tissue diseases, endocrine disorders, infections disease, immune dysfunctions, end of life and transplantation. The crucial-thinking process will be utilized with subsequent safe-decision outcomes. A clinical component is included.

NURS 2210 Professional Role of the Nurse II **1 – 0 – 1**
Prerequisites (2): Successful completion of the LPN Program and LPN licensure
Co-requisites (2): NURS 2410 and NURS 2520
This course is designed to assist the student in identifying the role of the registered nurse as a member of the healthcare team. The role of the registered nurse, legal, ethical concepts, cultural influences, the nurse process, the teaching and learning process and the healthcare delivery system are emphasized.

NURS 2310 Mental Health Nursing II **3.5 – 4.5 – 5**
Prerequisites (4): Satisfactory completion of LPN licensure, NURS 2210, NURS 2410 and NURS 2520
This course examines mental health, mental illness, curse-client relationships and self-awareness. Through the use of the nursing process, therapeutic communication and caring behaviors, the path to wellness will be promoted in individuals, families and groups. The role of the psychiatric nurse as a member of the mental health team and the impact trends and issues in mental health have on current practice will be examined. Pathophysiology, nutrition and pharmacology will be integrated into the course. Clinical experiences will be provided in acute and/or chronic health facilities and community-based experiences.

NURS 2410 Family Nursing II **4 – 4 – 5**
Prerequisites (1): Satisfactory completion of the first five quarters of the Nursing Program
Co-requisites (2): NURS 2210 and NURS 2520
This course expands on content taught in NURS 1400 to focus on complex health and wellness needs of individuals and families throughout the lifespan.

NURS 2520 Concepts of Health Assessment and Therapeutic Interventions II **0.5 – 2 – 1**
Co-requisites (2): NURS 2210 and NURS 2410
This course is designed to assist the student in developing assessment skills of the professional registered nurse. It introduces physical assessment skills related to light palpation percussion and the use of otoscope/opthalmoscope. The therapeutic interventions related to intravenous therapy are presented. Comprehension of underlying principles and mastery of skills will be demonstrated in the lab setting.

PHILOSOPHY (PHIL)

ENGL 1010 and ENGL 1020 are strongly recommended for all Philosophy courses.

PHIL 1010 Introduction to Philosophy **4.5 – 0 – 4.5**
Topics fundamental to living an aware life are the focus of this course. What is the nature of human freedom? What are its limits? What is the good life? What is a just society like? What are the limits of human knowledge? Questions such as these are explored.

PHIL 1030 Professional Ethics **4.5 – 0 – 4.5**
The title of this course designates a group of courses in professional ethics each of which will focus on a specific professional field. When offered, the title will designate in parentheses the professional field that the course will focus on such as Professional Ethics (Nursing) or Professional Ethics (e-Commerce). Each course in Professional Ethics will emphasize a review of the main ethical theories, an exploration of the ethical principles germane to the particular field and an application of professional ethics to the problems in that field.

PHIL 1100 Critical Reasoning **4.5 – 0 – 4.5**
The student explores the use of logic in everyday settings to analyze ideas, evaluate arguments, draw logical conclusions and sort relevant from irrelevant statements. The student also studies problem-solving techniques.

PHIL 2030 Introduction to Ethics **4.5 – 0 – 4.5**
This course provides the opportunity to develop skills of moral reasoning through analysis of concepts and problems. Included is the clarification of the connection between philosophical theory, contemporary views and the student's own moral thinking. The student studies the most important ethical theories and examines their application to the practical moral problems people face in their lives.

PHIL 2200 Introduction to Comparative Religion **4.5 – 0 – 4.5**
The great religions of humanity are examined comparing them with regard to their origins, worldviews, beliefs, philosophies of man and thoughts about our place in the universe.

PHIL 2400 Philosophy and Literature **4.5 – 0 – 4.5**
This course examines both traditional and recent literature in relation to the ethical, metaphysical, social and aesthetic contexts that informed these works of literature. Fiction, poetry and dramatic works are paired closely to their philosophical partners such as Charles Dickens's *Hard Times* with Jeremy Bentham and John Stuart Mill, Alice Walker's *The Color Purple* with black women philosophers or Thomas Mann's *Death in Venice* with Nietzsche and Plato.

PHIL 2600 Contemporary Issues in Philosophy **4.5 – 0 – 4.5**
Current issues in feminist philosophies, social and political philosophies, multiculturalism and postmodernism are discussed and examined in relation to their criticisms of traditional philosophy and in relation to how they envision the world. Emphasis is placed on how to think beyond the current conflict.

PHIL 2900 Special Topics in Philosophy **Variable**
Prerequisites (1): Instructor approval
Topics not covered by the other departmental courses may be available in PHIL 2900, including such topics as contemporary issues, the philosophy of art and literature and the foundations of science and technology. (Formerly PHL 295)

PHOTOGRAPHY (PHOT)

PHOT 1110 Basic Photography* **5 – 3 – 6**
This course is an introduction to photographic equipment, materials and processes. Basic camera and darkroom techniques as well as composition are covered. All work is evaluated regularly in critiques.

> **The student needs to have access to a camera for this class.*

PHOT 1120 Intermediate Photography **5 – 3 – 6**
Prerequisite (1): PHOT 1110
This intermediate course is a continued refinement of the black and white materials and processes introduced in Basic Photography. Elementary methods of artificial lighting and use of filters are included.

PHOT 1130 Photographic Concepts **5 – 3 – 6**
Prerequisite (1): PHOT 1110
This course acquaints the student with photographic imagery of the past and present. Photography's interrelationship with society and culture, art and technology and the principles of visual design are emphasized.

PHOT 1140 Large Format Photography **5 – 3 – 6**
Prerequisites (2): PHOT 1120 and PHOT 1130
This advanced-level course continues the investigation and application of black and white photography by using the professional 4x5 camera and fiber-based printing applications.

PHOT 1210 Digital Photography **5 – 3 – 6**
Prerequisite (1): PHOT 1120, PHOT 1500 or EIMA 1100
This course surveys digital imaging and electronic darkroom methods relevant to photography. Students are introduced to techniques of digital camerawork and film scanning, refining and controlling images with graphics applications, managing digital media and using digital printing processes.

PHOT 1310 Color Photography **5 – 3 – 6**
Prerequisite (1): PHOT 1120
This is an introductory course in color photography covering additive and subtractive color theory, the use of reversal film, the color negative and color printing procedures.

PHOT 1400 Photographic Lighting **5 – 3 – 6**
Prerequisites (3): PHOT 1130, PHOT 1210 and PHOT 1310
This course is an introduction to both the medium-format camera and studio flash photographic lighting. Topics include working with lighting equipment on location and in a studio setting. All work will be completed with color photographic materials and the medium-format camera and printed in the color darkroom.

PHOT 1500 Moving Image Lab **5 – 3 – 6**
This course is an overview of methods used in moving-image production. By investigating the preproduction, production and postproduction processes, the student achieves an understanding of how these principles integrate with still photography, video production and multimedia.

PHOT 2130 Intermediate Photographic Concepts **5 – 3 – 6**
Prerequisites (3): PHOT 1130, PHOT 1210 and PHOT 1310
Building on the knowledge acquired in the Photographic Concepts course, this course is designed to teach the practical steps necessary to move from the formation of an idea to the professional execution of that idea. Contemporary issues in the realm of fine art and commercial photography will be addressed.

PHOT 2150 Photojournalism **5 – 3 – 6**
Prerequisites (2): PHOT 2130 and PHOT 2210
This course serves as an introduction to journalistic photography. Newspaper, magazine editorial and documentary photography are studied. The student completes individual assignments that express and illustrate the working processes of news, magazine and documentary photography.

PHOT 2170 Experimental Photography 5 – 3 – 6
Prerequisite (1): PHOT 1140
This course is for the student who has mastered the basic technical processes of black and white photography (film developing, printmaking and print presentation) and wishes to learn a variety of alternative processes as a means of reaching new visual goals. Emphasis is placed on nontraditional approaches to seeing and utilization of the student's innate creativity to generate an expressive image.

PHOT 2180 Portfolio Development and Professional Practice 5 – 3 – 6
Prerequisites (4): PHOT 1140, PHOT 1400, PHOT 2130 and 2210
Through critical feedback, this course prepares the student to build a comprehensive, professionally oriented body of work using skills, processes and concepts acquired in earlier photography courses. Additionally, the course will cover ethical, legal, financial and aesthetic issues pertinent to contemporary photography.

PHOT 2210 Intermediate Digital Photography 5 – 3 – 6
Prerequisites (2): PHOT 1210 and PHOT 1310
This course is a continuation of PHOT 1210 Digital Photography. Students refine and extend techniques involving scanning and digital camerawork, control of image quality and color-managed output options. The emphasis is on greater understanding and more precise control of image input and digital printmaking.

PHOT 2211 Advanced Digital Photography 5 – 3 – 6
Prerequisites (2): PHOT 1400 and PHOT 2210
In this course, students continue to enhance image-making possibilities in a digital media environment. The course builds on the skills and knowledge developed in preliminary digital photography classes. The emphasis is on developing a professional workflow employing a variety of advanced techniques and resulting in high-level creative control over image output.

PHOT 2270 Advanced Experimental Photography 5 – 3 – 6
Prerequisite (1): PHOT 2170
This course is a continuation of the process-related image-making techniques introduced in PHOT 2170. Use of enlarged negatives and digital negatives continue to be emphasized for use with hand-painted emulsions. These processes will be developed further with increased attention on perfecting and repeating processes with the outcome of students sharing their work through a suite of prints. Emphasis will be placed on image content and conceptualization. Unconventional cameras and lighting techniques will continue to be addressed by adaptation of cameras and equipment close at hand. Specialized film and film processing will be utilized.

PHOT 2410 Advanced Photographic Lighting 5 – 3 – 6
Prerequisites (4): PHOT 1140, PHOT 1400, PHOT 2130 and PHOT 2210
This advanced-level course continues the use of professional studio photographic equipment. Focus will be directed toward more complex and complicated situations and subjects.

PHOT 2900 Special Topics in Photography Variable
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Photography Program.

PHOT 2981 Internship Variable
Prerequisite (1): Instructor approval
Through the internship, the student works in a professional photography or video workplace. Types of work involved include a variety of the following: photographing, camera assisting, darkroom work, equipment, set preparation, video production and postproduction and audio production and postproduction. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

PHYSICAL EDUCATION (PHED)

PHED 1000 Physical Education for Health 1 – 1 – 1.5
This course provides information regarding muscle type and function. Attention is given to both aerobic and anaerobic physical training techniques consistent with a healthy lifestyle. Students develop and follow a personalized goal-directed exercise program. Motivational techniques and dietary considerations are covered.

PHED 1010 Physical Education for an Active Lifestyle 1 – 5 – 3.5
This course provides information regarding muscle type and function. Attention is given to both aerobic and anaerobic physical training and techniques consistent with an active lifestyle. Students develop and follow a personalized, goal-directed exercise program. Motivational techniques and dietary considerations are covered.

PHED 2900 Special Topics in Physical Education Variable
This course permits instruction in special content areas not included in other Physical Education courses.

PHYSICS (PHYS)

PHYS 1010 Applied Physics 2.5 – 6 – 4.5
Prerequisites (2): MATH 0921 or MATH 0960 and SCIE 0900 or assessment testing
The focus of this course is a general understanding of the basic principles and practical applications of mechanics, heat, electricity, magnetism and light. This course includes both lecture and lab components.

PHYS 110A, B and C Principles of Physics I*
Principles of Physics I is the first half of an algebra-based college physics sequence. The course will be taught as three courses that include lecture and lab. All courses must be taken to transfer as a semester-length course.

PHYS 110A Principles of Physics IA 2 – 1.5 – 2.5
Prerequisite (1): MATH 1310
Topics include kinetics, vectors, Newton laws, work and energy.

PHYS 110B Principles of Physics IB 2 – 1.5 – 2.5
Prerequisite (1): PHYS 110A
Topics include momentum, rotational motion, gravitation and fluids.

PHYS 110C Principles of Physics IC 2 – 1.5 – 2.5
Prerequisite (1): PHYS 110B
Topics include kinetic theory, heat and thermodynamics.

PHYS 111A, B and C Principles of Physics II
Principles of Physics II is a continuation of the algebra-based sequence of college physics. The course will be taught as three courses. All courses must be taken to transfer as a semester-length course. The course includes both lecture and lab.

PHYS 111A Principles of Physics IIA 2 – 1.5 – 2.5
Prerequisite (1): PHYS 110C
Topics include waves, sound and electricity.

PHYS 111B Principles of Physics IIB 2 – 1.5 – 2.5
Prerequisite (1): PHYS 111A
Topics include electricity and magnetism.

PHYS 111C Principles of Physics IIC 2 – 1.5 – 2.5
Prerequisite (1): PHYS 111B
Topics include light, optics and select topics in modern physics.

PHYS 210A, B and C General Physics I
General Physics I is the first course of a calculus-based college physics sequence. The course will be taught as three courses that include lecture and lab. All courses must be taken to transfer as a semester-length course.

PHYS 210A General Physics IA 2 – 1.5 – 2.5
Prerequisite (1): MATH 2410
Topics include kinematics, vectors, Newton laws, work and energy.

PHYS 210B General Physics IB 2 – 1.5 – 2.5
Prerequisite (1): PHYS 210A
Topics include momentum, rotational motion, gravitation and fluids.

PHYS 210C General Physics IC 2 – 1.5 – 2.5
Prerequisite (1): PHYS 210B
Topics include heat, thermodynamics and kinetic energy.

PHYS 211A, B and C General Physics II*
General Physics II is a continuation of calculus-based college physics. The course will be taught as three courses. All courses must be taken to transfer as a semester-length course. The course includes both lecture and lab.

PHYS 211A General Physics IIA 2 – 1.5 – 2.5
Prerequisite (1): PHYS 210C
Topics include waves, sound and electricity.

PHYS 211B General Physics IIB 2 – 1.5 – 2.5
Prerequisite (1): PHYS 211A
Topics include electricity and magnetism.

PHYS 211C General Physics IIC 2 – 1.5 – 2.5
Prerequisite (1): PHYS 211B
Topics include light, optics and select topics from modern physics.

**Principles of Physics I and II are each taught as a three-course sequence. All three courses must be successfully completed to transfer as a semester-length course.*

Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions.

General Physics I and II are each taught as a three-course sequence. All three courses must be successfully completed to transfer as a semester-length course.

PHYS 2900 Special Topics in Physics Variable
Various topics not covered in other Physics courses may be offered depending upon interest and relevancy to curriculum.

PLUMBING APPRENTICESHIP (PLAP)

PLAP 1110 Plumbing IA 7 – 0 – 7
This course is an introduction to the plumbing trade for plumbing apprentices. The course will cover the history of plumbing along with the commonly used materials, tools and equipment. The apprentice will also be introduced to math used in the plumbing trade.

PLAP 1120 Plumbing IB **7 – 0 – 7**
Prerequisite (1): PLAP 1110
This course is a continuation of the introductory material covered in Plumbing IA. The apprentice will continue working on math for the plumbing trade.

PLAP 1130 Print Reading for Plumbers **3.5 – 0 – 3.5**
Prerequisites (2): PLAP 1110 and PLAP 1120
This course is designed to help a plumbing apprentice gain the basic skills knowledge needed to read blueprints, create shop drawings and make isometric illustrations of a plumbing system.

PLAP 1210 Plumbing IIA **7 – 0 – 7**
Prerequisite (1): PLAP 1120
This course will cover the sizing and design of water, waste and vent systems in residential applications using MUD and Omaha Plumbing Code rules. The student will become familiar with residential blueprints and isometric drawings used in residential applications.

PLAP 1220 Plumbing IIB **7 – 0 – 7**
Prerequisite (1): PLAP 1210
This course will provide a better understanding of the Omaha Plumbing Code and use the knowledge acquired to apply the code requirements to field work and lab projects. The student will also continue gaining proficiency using plumbing math.

PLAP 2310 Plumbing IIIA **7 – 0 – 7**
Prerequisite (1): PLAP 1220
This course will develop the students' proficiency in the use of the Omaha Plumbing Code. The course will continue with the design and installation of drain, waste and vent systems, water supply systems and storm drainage systems. The student should also gain a working knowledge of the differences between the Omaha Plumbing Code and the Uniform Plumbing Code.

PLAP 2320 Plumbing IIIB **7 – 0 – 7**
Prerequisite (1): PLAP 2310
This course will cover the design and installation of public and private sewage systems, medical gas piping systems and irrigation systems. The course will also cover MUD regulations for water, gas and vent piping systems for gas appliances.

PLAP 2410 Plumbing IVA **7 – 0 – 7**
Prerequisite (1): PLAP 2320
This course will continue with the interpretation and application of the Omaha Plumbing Code in the design of plumbing systems. The course will cover installation procedures for various plumbing systems including water conditioning and swimming pools. Commercial blueprints will also be covered.

PLAP 2420 Plumbing IVB **7 – 0 – 7**
Prerequisite (1): PLAP 2410
This course will review the Omaha Plumbing Code, jobsite safety and math skills required for the plumbing trade. Through review and application of classroom knowledge, the apprentice should be prepared to successfully take the journeyman plumbers test.

PLAP 2900 Plumbing Test Prep **1 – 0 – 1**
Prerequisite (1): PLAP 2420
This class is a review of the fourth year material to prepare the apprentice for the city of Omaha plumbing exam.

POLITICAL SCIENCE (POLS)

POLS 2050 American National Government **4.5 – 0 – 4.5**
College-level reading skills recommended
This course is an introduction to American national government including a study of the structural function of the political system and the elements of constitutionalism, republicanism and federalism. The party system and an analysis of the U.S. Constitution are included. It is a descriptive, institutional approach with considerable attention to the policy-making process.

POLS 2060 The Constitution **4.5 – 0 – 4.5**
College-level reading skills recommended
This course focuses on some of the great issues that confront policy makers and citizens of the United States. The framework for study is the U.S. Constitution. Topics covered include executive privilege/delegation of powers; war power and covert action; nomination, election and succession of the president; criminal justice and a defendant's right to a fair trial; crime and insanity; crime and punishments; campaign spending; national security; freedom of the press; school prayer; gun control; right to assemble; right to live; right to die; immigration reform; affirmative action; and federalism.

POLS 2070 Contemporary Social and Political Issues **4.5 – 0 – 4.5**
College-level reading skills recommended
This course examines through reading, discussion and media the social and political issues relevant to the 21st century. The overall theme of the course is globalization and global understanding. Discussion includes the following topics: peacemaking and nonviolence, women and world order, education, hunger and food distribution, ecological balance, international law and organization, human rights and social justice, world political economy and economic justice, militarism and the arms race, religious perspectives on justice and peace and culture, community values and change.

POLS 2900 Special Topics in Political Science **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other Political Science courses.

PSYCHOLOGY (PSYC)

PSYC 1000 Psychology for Everyday Living* **4.5 – 0 – 4.5**

This course provides a survey of major themes of psychology and explores applications for daily living. Topics include adult development, personal problem solving and motivation, anger management, parenting, stress management and intimacy issues.

> **PSYC 1000 is highly recommended for vocational technical careers.*

PSYC 1010 Introduction to Psychology **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

The student learns a broad overview of the general field, fundamental principles and methods of psychology. This course is designed to be a transferable course. Main topics include physiological psychology, learning, memory, human growth and development, personality, motivation and emotion, social psychology, abnormal behavior and therapeutic approaches.

PSYC 1110 Parenting and Family Problem Solving **4.5 – 0 – 4.5**

This course introduces the student to effective parenting skills and strategies for solving family problems. Emphasis is placed on parent-child relations, developmental milestones, family systems theory, family communication, family composition and issues related to abuse and neglect. Parenting challenges such as single-parenthood, divorce, custody issues, stepfamily systems and conflict management are explored. Timely topics such as same sex parenting, interracial families and families faced with natural disasters and the war on terrorism will be discussed.

PSYC 1120 Human Growth and Development **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

This course addresses the stages of the human life span: prenatal, infancy, toddlerhood, middle childhood, adolescence, adulthood and gerontology. With each stage of the life span, cognitive, language, emotional, social, personality and physical development are examined. In addition, the procedures used in conducting research about human development are presented.

PSYC 1130 Cognitive Development **4.5 – 0 – 4.5**

Prerequisites (2): PSYC 1120 or ECED 1110 and ECED 1120

This course examines current cognitive theories utilized in the field of education. It makes an in-depth study of the stage theories and their application to experiential and developmental environments. As stages of environment are studied, implications for adaptation in the educational classroom setting are learned. The student also gains experience in assessing cognitive levels, reporting such findings and planning curriculum to enhance development.

PSYC 2140 Behavior Modification and Principles of Learning **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

The student is exposed to the history and various theoretical approaches to the study of learning and behavior modification. The student has opportunities to learn applied behavior modification techniques including observing and recording behavior and formulating and writing behavioral objectives. This course also includes an examination of motivation, attitude formation and cognitive intervention approaches.

PSYC 2150 Survey of Human Sexuality **4.5 – 0 4.5**

Prerequisite (1): PSYC 1010 or SOCI 1010

This course is a survey of the topic of human sexuality. The student is presented with materials concerning the biological, psychological and socio-cultural facets of sexual behavior. (Cross-listed as SOCI 2150)

PSYC 2350 Fundamentals of Abnormal Psychology **4.5 – 0 – 4.5**

Prerequisite (1): PSYC 1010 or PSYC 1120

This course examines historical and contemporary views and issues of abnormal behavior. Methods of explaining, diagnosing and treating disordered behavior are examined.

PSYC 2450 Social Psychology **4.5 – 0 – 4.5**

Prerequisite (1): PSYC 1010 or SOCI 1010

This is an introductory course in social psychology that demonstrates the interaction of social groups and individual behavior. (Cross-listed as SOCI 2450)

PSYC 2550 Popular Readings in Social Science **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

The psychological authenticity of selected popular psychology and self-help books are explored in this course. Emphasis is placed on theoretical foundations and therapeutic or pseudo-therapeutic advantages and disadvantages of each book. (Cross-listed as SOCI 2550)

PSYC 2650 Research Methods 4.5 – 0 – 4.5
This is an introductory course in research methods and design. The course is comprehensive and as such, students will examine the entire research process including formulating research questions, sampling, measurement (surveys, scaling, qualitative and quantitative), research design (experimental and quasi-experimental), data analysis and research writing. The course also addresses the major theoretical and philosophical underpinnings of research including the idea of validity in research, reliability of measures and ethics. The course materials and text use an informal, conversational style to engage both the beginning and the more experienced student of research methods in several areas of study (e.g., psychology, business, nursing, social work, political science and education).

PSYC 2900 Special Topics in Psychology Variable
This course permits instruction in special content areas that are not included in other Psychology courses.

READING AND LEARNING SKILLS (RDLS)

RDLS 0100 College Reading Strategies 4.5 – 0 – 4.5
Prerequisite (1): Assessment testing or ENGL 0950
This course provides reading improvement instruction for the student who needs to reach college-level proficiency. Students will improve comprehension, vocabulary and reading rate using a variety of materials and software. Students will learn to read college texts more effectively. Students are provided a general orientation to college, which includes a support system to promote success.

RDLS 1150 College Vocabulary 4.5 – 0 – 4.5
This course is designed to help students broaden their vocabulary in order to communicate more effectively in their academic, professional and personal lives. Topics of study include Latin and Greek roots, prefixes and suffixes often found in English words, context clues, academic vocabulary and higher-level general vocabulary needed for successful college-level reading and writing.

RDLS 1160 Reading Rapidly and Effectively* 2 – 0 – 2
Prerequisite (1): The ability to navigate the Internet
This course is for anyone who wishes to improve reading speed and comprehension. The course consists of two components: 1) online (ANGEL) modules that contain short readings and quizzes and 2) completing lessons using The Ultimate Speed Reader (USR) software program. Most students who complete this course will at least double their reading speed while maintaining or improving their comprehension. Students will also learn techniques such as skimming and scanning to increase effective reading efficiency and flexibility. This class does not meet as a group at a set time or place, so it fits well with any student's schedule.

**Students who enroll in RDLS 1160 must have access to The Ultimate Speed Reader software. They may either purchase it to use at home or use it in any campus Academic Resource Center.*

RDLS 1200 College Success Strategies* 4.5 – 0 – 4.5
This course is designed to help students develop study strategies and life skills that will enable them to be successful in college and beyond. Topics of study include goal setting, time management, memory techniques, reading strategies, note-taking skills, test-taking skills, critical thinking, communicating effectively and technology. The tools introduced throughout the course will assist students in their academic, personal and professional growth.

**RDLS 1200 is a wonderful opportunity to assist with the transition to college. This course provides numerous formulas to create success in and out of the classroom.*

RDLS 1220 College Success Strategies for the Health Careers 4.5 – 0 – 4.5
This course covers study and reading skills essential for success in college nursing classes and life. Study skills taught include self-awareness, goal setting, time management, note taking, memory techniques and test taking. Reading skills focus on critical thinking and textbook reading strategies. Other course topics may include basic computer skills, College resources and basic health career math.

REAL ESTATE (REES)

REES 1000 Real Estate Principles 4.5 – 0 – 4.5
A general survey of real estate principles and practices is given. Topics presented include real property rights, real estate transactions, property ownership, real estate financing, appraisal, brokerage, legal instruments, real estate markets, planning and regulation.

REES 1100 Real Estate Law 4.5 – 0 – 4.5
Prior completion of REES 1000 is beneficial but not required
This course familiarizes the student with the basic Nebraska Real Estate Act as it applies to ownership, conveyance and rights in real property. It also familiarizes the student with the role of agent in the relationship between the broker and the client.

REES 2100 Real Estate Finance 4.5 – 0 – 4.5
Prerequisite (1): REES 1000 or licensure
This course covers the various methods of financing real property and the financial institutions that provide the funds for financing residential, commercial and income properties.

REES 2110 Building and Property Management **4.5 – 0 – 4.5**

Prerequisite (1): REES 1000 or licensure

Practical skill building for real estate salespersons, brokers and others is supplied. Attention is given to the management of income-producing real property, leases, contracts, merchandising, tenant selection, relations with owners and tenants, collections, maintenance, accounting ethics and legal and professional relationships.

REES 2120 Real Estate Sales and Brokerage **4.5 – 0 – 4.5**

Prerequisite (1): REES 1000 or licensure

The primary emphasis of this course is to introduce the student to the operational functions of the real estate licensee. The role of the licensee as he/she is employed to bring parties together and actually create a market for real property is examined. The student becomes familiar with the marketing procedures within the real estate industry and the economic factors that cause activity within the real estate market.

REES 2130 Real Estate Appraisal **4.5 – 0 – 4.5**

Prerequisite (1): REES 1000 or licensure

This course analyzes and qualifies forces that create, maintain and destroy real property values. Specifically, the course is oriented to the appraisal process and methods of arriving at a logical estimated value based upon the market comparison approach, income approach and cost approaches to value.

REES 2900 Special Topics in Real Estate **Variable**

Prerequisite (1): Instructor approval

This course permits instruction in special content areas that are not included in other Real Estate courses.

REES 2981 Internship **0 – 15 – 3**

Prerequisite (1): REES 1000 and instructor approval

The student applies the principles learned in REES 1000 and REES 2112 while working in a real estate office under the supervision of a licensed agent. Duties include preparing listing packets and purchasing kits; performing clerical functions such as mailings, scheduling appointments and showings; and attending sales meetings and all closings. The student records tasks in a notebook for review by the supervisor and faculty sponsor to assure that appropriate competencies are being developed. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

RESERVE OFFICERS TRAINING (ROTC)

ROTC is available to MCC students through the University of Nebraska–Omaha (Air Force) and through Creighton University (Army). For further information about this program, contact:

UNO – Air Force ROTC Office at (402) 554-2318

Creighton – Military Science Program at (402) 280-2828

ROTC 1000 Leadership Laboratory (Army) **0 – 1.5 – 0**

The Leadership Laboratory provides initial and advanced military leadership instruction in military courtesy, first aid and practical field training exercises. Functions and responsibilities of leadership positions are developed through cadet command and staff positions. This course is equivalent to MIL 100 at Creighton University and is scheduled at their campus.

ROTC 1010 Introduction to Officer Professionalism I (Army) **1.5 – 0 – 15**

Co-requisite (1): ROTC 1000 (must be taken at the same time or completed earlier)

This course examines the role of the commissioned officer in the U.S. Army. Discussion focuses upon officer career opportunities, role of the officer, responsibilities of and basis for the armed forces and sources of officer commissioning. This course is equivalent to MIL 101 at Creighton University and is scheduled at their campus.

ROTC 1020 Introduction to Officer Professionalism II (Army) **1.5 – 0 – 1.5**

Co-requisite (1): ROTC 1000 (must be taken at the same time or completed earlier)

This course is a continuation of ROTC 1010. The student further examines the role of the commissioned officer in the U.S. Army. Focus is on customs of the service; role of the Army, Army Reserve and Army National Guard; organization of the Army; branches of the Army; and leadership principles for the junior officer. This course is equivalent to MIL 102 at Creighton University and is scheduled at their campus.

ROTC 1300 Leadership Laboratory (Air Force) **0 – 1.5 – 0**

Co-requisites (2): Leadership Laboratory is an integral part of all ROTC courses and must be taken in conjunction with both ROTC 131O and ROTC 1320

Leadership Laboratory provides initial and advanced military leadership experiences including cadet squadron operations, commanding, training, recruiting, communicating, drill and ceremonies, customs and courtesies, career planning and staff action practica designed to simulate the professional world of the Air Force officer.

ROTC 1310 Foundation of the U.S. Air Force I **1.5 – 0 – 1.5**

Co-requisite: ROTC 1300

This course is offered in the Fall quarter only.

This survey course is designed to introduce students to the U.S. Air Force and Air Force Reserve Officer Training Corps. Featured topics include mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and compliments this course by providing cadets with followership experiences. This course is equivalent to AERO 1310 at the University of Nebraska–Omaha.

ROTC 1320 Foundations of the U.S. Air Force II **1.5 – 0 – 1.5**

Prerequisite (1): ROTC 1310

Co-requisite (1): ROTC 1300; ROTC 1320 is offered in the Winter quarter only

This is a continuation of ROTC 1310. This course is equivalent to AERO 1320 at the University of Nebraska–Omaha and may be scheduled only at the University. (Formerly ROT 132)

ROTC 2000 Leadership Laboratory II (Army) **0 – 1.5 – 0**

This is the second-year leadership laboratory that parallels ROTC 2110 and ROTC 2120 classroom instruction reinforcing concepts learned in class with practical hands-on training exercises and activities. Training is focused on more advanced individual and collective small unit skills such as small unit leadership and tactics doctrine, land navigation, basic rifle marksmanship and drill and ceremonies. This course is required with enrollment in ROTC 2110 and ROTC 2120 and may be repeated one time.

ROTC 2030 Military Art of the Modern Army **1.5 – 0 – 1.5**

This course is the study and application of U.S. Army doctrine based on the Army's keystone field manual FM 100-5, Operations. The student learns doctrinal definitions and the fundamentals that are common to all Army, joint and combined operations. Special emphasis is on learning the staff functions and the introduction to the military decision-making process.

ROTC 2050 ROTC Basic Camp **1.5 – 0 – 1.5**

This course involves five weeks of preparatory training at Fort Knox, Ky. Travel pay and salary stipend are provided through the Army. The student is not obligated to any military service as the result of attending Basic Camp. Camp graduates are eligible to enroll in advanced military science courses. The student may be eligible to compete for two-year ROTC scholarships.

ROTC 2070 Fundamentals of Army Ranger Training **1.5 – 0 – 1.5**

This course is for cadets enrolled in Military Science to challenge the individual in physical endurance and small-unit leadership, tactics and techniques. Competitive area success would lead to interstate team competition versus other university teams in the Midwest.

ROTC 2080 Advanced Army Ranger Training **1.5 – 0 – 1.5**

This course is a continuation of ROTC 2070 introducing advanced small unit tactics and techniques.

ROTC 2110 Basic Individual Leadership Techniques (Army) **1.5 – 0 – 1.5**

Prerequisites (2): ROTC 1010 and ROTC 1020

This course develops student leadership and critical individual skills. Training is basic in nature and includes leadership techniques, written and oral communications, rifle marksmanship, fundamentals of land navigation and physical fitness. This course is equivalent to MIL 211 at Creighton University and is scheduled at their campus.

ROTC 2120 Advanced Individual Leadership Techniques (Army) **1.5 – 0 – 1.5**

Prerequisite (1): ROTC 2110

This course continues the development of student leadership and critical individual military skills. Training focuses on advanced military skills and includes orienteering, field survival skills, operation and training. This course is equivalent to MIL 212 at Creighton University and is scheduled at their campus.

ROTC 2310 The Evolution of USAF Air and Space Power I **1.5 – 0 – 1.5**

Prerequisites (2): ROTC 1310 and ROTC 1320

Co-requisites (1): ROTC 1300 must be taken in conjunction with this course

ROTC 2310 is offered in the Fall quarter only.

This course is designed to examine general aspects of air and space power through a historical perspective. This course covers a period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force competencies and functions. This course is equivalent to AERO 2310 at the University of Nebraska–Omaha and is scheduled only at the University.

ROTC 2320 The Evolution of USAF Air and Space Power II **1.5 – 0 – 1.5**

Prerequisites (3): ROTC 1310, ROTC 1320 and ROTC 2310

Co-requisite (1): ROTC 1300 must be taken in conjunction with this course; ROTC 2320 is offered in the Winter quarter only

This is a continuation of ROTC 2310. This course is equivalent to AERO 2320 at the University of Nebraska–Omaha and is scheduled only at the University.

RESPIRATORY CARE TECHNOLOGY (RESP)

RESP 1000 Orientation to Respiratory Care 3 – 0 – 3

Prerequisite (1): Acceptance into the Respiratory Care Technology Program

This course provides exploration into the field of respiratory care for the student seeking a career in the profession. Emphasis is placed on the role of the respiratory care practitioner in dealing with the legal and psychological aspects of patient care. The student is acquainted with the medical terminology associated with the field of respiratory care. Other topics discussed in the course include employment opportunities, communication skills and professional medical ethics.

RESP 1010 Introduction to Respiratory Care Procedures 3.5 – 3 – 4.5

Prerequisites (1): Acceptance into the Respiratory Care Technology Program

This course includes information about the manufacture, transport and storage of medical gases. Oxygen therapy techniques are introduced. The student is instructed in the application of the following therapy modalities: aerosol and humidity therapy, incentive spirometry, resuscitation devices and medical asepsis.

RESP 1020 Cardiopulmonary Anatomy and Physiology 4.5 – 0 – 4.5

Prerequisites (3): BIOS 1310 or BIOS 2320, CHEM 1010 and acceptance into the Respiratory Care Technology Program

This course is a study of advanced cardiopulmonary anatomy and physiology. Specific emphasis is placed upon airway structures, the mechanics of ventilation, blood gas transport and acid-base balance.

RESP 1030 Respiratory Care Procedures I 3.5 – 3 – 4.5

Prerequisites (2): RESP 1010 and RESP 1020

This course is a study of general medical-surgical respiratory care procedures. Topics include patient physical assessment, bedside pulmonary mechanics, basic respiratory pharmacology, airway management, chest physiotherapy and arterial blood gas analysis.

RESP 1031 Current Concepts I 2 – 0 – 2

Prerequisites (2): RESP 1010 and RESP 1020

Emphasis in this course is on obstructive lung diseases. Included are common therapeutic modalities used in their treatment, laboratory values, patient assessment techniques, disease prevention and disease management. This course includes discussions of current medical literature, physician lectures and case presentations.

RESP 1040 Respiratory Care Procedures II 3.5 – 3 – 4.5

Prerequisites (2): RESP 1020 and RESP 1030

This course develops skills in ventilatory management. Emphasis is placed on IPPB therapy, assessment of respiratory failure, continuous mechanical ventilation techniques, physiologic aspects of mechanical ventilation and invasive and non-invasive monitoring techniques.

RESP 1041 Current Concepts II 2 – 0 – 2

Prerequisites (2): RESP 1991 and RESP 1031

This course allows the student to build upon experiences in both the clinic and the classroom setting. Using critical-thinking skills, the student recognizes the clinical signs and symptoms and treatment strategies for cystic fibrosis, pulmonary edema, neoplastic lung disease, AIDS, pulmonary abscesses and pneumonia. Principles of chest radiography are introduced and are referred to throughout the discussion of the above pulmonary disorders.

RESP 1042 Pharmacology for Respiratory Care 3 – 0 – 3

Prerequisites (2): RESP 1020 and RESP 1030

Emphasis in this course is on respiratory care pharmacology. The course includes general principles and administration, drug dosages and calculations, interactions, pharmacological action and effect, as well as contraindications and side effects.

RESP 1991 Clinical Practicum I 0 – 16.5 – 5.5

Prerequisites (2): RESP 1010 and RESP 1020

The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. Along with an orientation to clinical policies and facilities, emphasis is placed upon the basics of oxygen therapy, patient assessment techniques, sustained maximum inspiration, medical aerosol and metered dose inhaler therapy and medical asepsis.

RESP 1992 Clinical Practicum II 0 – 16.5 – 5.5

Prerequisites (2): RESP 1991 and RESP 1031

The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. Emphasis is placed on chest physiotherapy and postural drainage, airway management, arterial blood gas analysis, bedside monitoring techniques, hyperinflation techniques, aerosol and humidity therapy and recall skills from RESP 1991.

RESP 1993 Clinical Practicum III 0 – 16.5 – 5.5

Prerequisites (2): RESP 1992 and RESP 1041

The student is assigned to 16.5 hours per week clinical practice in affiliated hospitals and healthcare agencies. The course includes introducing the student to the adult critical care setting with emphasis on ventilator and airway management and recall skills learned in RESP 1991 and RESP 1992. An observational surgery is included in this quarter of study.

RESP 2100 Advanced Respiratory Care 3.5 – 3 – 4.5
Prerequisites (2): RESP 1040 and RESP 1992
This course includes advanced cardiopulmonary physiology and its application in the management of the patient in cardio-respiratory failure. The course provides the student with instructional opportunities and laboratory experiences in pulmonary function testing and pulmonary home healthcare.

RESP 2101 Current Concepts III 2 – 0 – 2
Prerequisites (2): RESP 1992 and RESP 1041
This course assists the student in integrating critical thinking and reasoning into the pulmonary management of the acutely ill adult client. The course includes physician lectures, discussions of current medical literature and case study presentations on topics related to adult critical care.

RESP 2120 Cardiology and Hemodynamics 3 – 0 – 3
Prerequisites (2): RESP 1993 and RESP 2100
This course provides the student with instructional experiences in basic interpretation of cardiac rhythms, the interpretation of hemodynamic measurements used in patient assessment and the components of a pulmonary rehabilitation program.

RESP 2121 Current Concepts IV 2 – 0 – 2
Prerequisites (2): RESP 1993 and RESP 2101
This course assists the student in integrating advanced-level cardiopulmonary diagnostic testing into the care plan of the adult patient. The course includes physician lectures, discussions directed from current medical literature and case study presentations on topics requiring use of both recall and critical-reasoning skills in a clinical setting.

RESP 2122 Pediatric and Neonatal Respiratory Care 3 – 0 – 3
Prerequisites (2): RESP 1993 and RESP 2100
This course includes the study of cardiopulmonary physiology from fetal through adolescent life. The course topics include respiratory support, monitoring techniques and specific disease entities.

RESP 2131 Current Concepts V 2 – 0 – 2
Prerequisites (3): RESP 2121, RESP 2122 and RESP 2994
The course assists the student in the integration of theoretical knowledge and the actual clinical care of the acutely ill newborn or child. The course includes physician lectures, discussion of current medical literature and case study presentations directed at critical decision making and procedural tactics utilized in the clinical setting.

RESP 2132 Respiratory Care Seminar 4.5 – 0 – 4.5
Prerequisite (1): RESP 2994
This course introduces the student to the concepts of healthcare research and preparation of continuing education programs for healthcare professionals. Opportunities for practical experience in group facilitation and group presentations are provided.

RESP 2994 Clinical Practicum IV 0 – 16.5 – 5.5
Prerequisites (2): RESP 1993 and RESP 2101
The student is assigned to 16.5 hours per week clinical practice in affiliated hospitals and healthcare agencies. The clinical course extends upon RESP 1993 by providing emphasis in the adult critical care unit. Emphasis is placed on ventilator theory and patient management in both the acute care and sub-acute care facility, airway care, hemodynamic monitoring, performance of 12-lead electrocardiograph tracings, chest x-ray interpretation and diagnostic pulmonary function testing. Recall skills from RESP 1991, RESP 1992 and RESP 1993 will also be expected.

RESP 2995 Clinical Practicum V 0 – 16.5 – 5.5
Prerequisites (4): RESP 2120, RESP 2121, RESP 2122 and RESP 2994
The student is assigned to 16.5 hours per week to a clinical practice in affiliated hospitals and healthcare agencies. This course is the capstone clinical practicum for the program. Offered in this course are experiences in sleep labs studies, pulmonary rehabilitation, pediatric and neonatal respiratory care and home healthcare. Recall skills from RESP 1991, RESP 1992, RESP 1993 and RESP 2941 will be expected.

SCIENCE (SCIE)

SCIE 0900 Introduction to the Study of Science 2 – 6 – 4
Prerequisite (1): MATH 0920
The student who needs to learn or review basic scientific concepts important in his/her studies of biology, chemistry or physics will find this course helpful. He/she is taught how to study science through concept formation and problem solving. Some of the content areas covered include measurement, energy, diffusion and the composition of matter. Grades assigned are pass (P), fail (F) and re-enroll (R).

SCIE 1010 Introduction to Physical Science 5 – 3 – 6
Prerequisites (2): SCIE 0900 or assessment testing and MATH 0921 or MATH 0960
This is a survey course in the physical science with emphasis on scientific processes. It emphasizes the chemical and physical principles needed to better understand the world around them. In addition, it may include topics from astronomy, geology and meteorology.

SCIE 1030 Energy Systems and Sustainability – Conservation and Design 4.5 – 0 – 4.5
It is recommended that high school math and high school science be completed before taking this course.
This course is an introduction to energy systems. The course presents the current energy sources and uses (primarily from fossil fuels) as well as alternative energy systems, their uses and potential. The course will focus on the ways to address the energy needs of society and the problems that may be encountered over the next 15 years in providing for these energy needs. Course material will include projects and group learning activities.

SCIE 1300 Astronomy 4.5 – 0 – 4.5
Prerequisite (1): MATH 0921 or MATH 0960
As an introductory course in astronomy, SCIE 1300 covers the tools of astronomy, the night sky, the solar system, stars and star systems, galaxies and cosmology. This is a lecture only course. The lab course that complements this course is SCIE 1310.

SCIE 1310 Astronomy Laboratory 0 – 4.5 – 1.5
Prerequisite (1): MATH 0921 or MATH 0960
Co-requisite (1): SCIE 1300 (must be taken at the same time or completed earlier)
This laboratory course parallels the astronomy lecture course and gives the student a hands-on study of planetary and stellar motion, as well as exercises to identify the nature of large bodies in the universe. The student may be expected to go on field trips when appropriate. Topics include celestial coordinates, measuring planet size, Kepler's laws, planetary motion, temperature of stars, galactic speeds and Hubble's law, galactic rotation and the distribution of mass in the galaxy and use of a telescope.

SCIE 1900 Special Topics in Science Variable
Prerequisites (1): Instructor approval
Various topics not typically covered in the Science curriculum may be offered depending on interest and program need.

SIGN LANGUAGE STUDIES (SLIS)

SLIS 1000 Introduction to Language 4.5 – 0 – 4.5
This course studies basic universal linguistic features and their existence in various languages. Special attention is focused on English/American Sign Language comparatives.

SLIS 1005 Introduction to American Sign Language 4.5 – 0 – 4.5
Prerequisite (1): SLIS 1000
This course provides basic skills training in American Sign Language. Emphasis centers on basic vocabulary building and fundamental grammar. The course allows students to apply learned concepts in class.

SLIS 1010 American Sign Language I 5 – 3 – 6
Prerequisites (2): Assessment testing or ENGL 0960 and RDLS 0100 or college-level reading assessment test score
The purpose of this course is to acquaint the student with American Sign Language, to develop visual activity and to build comfort with the use of body/facial expressions to convey information. The course utilizes a practical approach to teaching vocabulary, grammar and the cultural aspects through real-life conversational experiences. The student is further acclimated to the new modality of this language via classroom experiences conducted without voice. Additional information about interacting with the Deaf community is introduced via outside community events, additional readings and lab activities.

SLIS 1020 American Sign Language II 5 – 3 – 6
Prerequisites (1): SLIS 1010 or department approval
This is a continuation of SLIS 1010 and emphasizes expansion and refinement of the fundamental comprehension and production skills covered in SLIS 1010 with the acquisition of additional functional grammatical structure and targeted lexical items. Spontaneous, interactive use of American Sign Language is stressed through discussion of deaf-related events and activities, and the student continues to study information related to everyday life experiences of deaf Americans and deaf people elsewhere in the world. Receptive skills are fostered through interactive ASL lessons.

SLIS 1030 American Sign Language III 5 – 3 – 6
Prerequisite (1): SLIS 1020 or department approval
This is the third course in the American Sign Language (ASL) sequence and provides the students with additional opportunities to expand their ability to produce and comprehend advanced sign language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features on the language. The student will use advanced conversational skills and learn to identify grammatical non-manual signals and markers.

SLIS 1040 American Sign Language IV 5 – 3 – 6
Prerequisite (2): SLIS 1030 and SLIS 1150 or department approval
This is the fourth course in the American Sign Language (ASL) sequence and provides the students with additional opportunities to expand their ability to produce and comprehend advanced signed language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features on the language. Activities are based on the cultural values of the Deaf community.

SLIS 1140 Orientation to Deafness 4.5 – 0 – 4.5
This course examines the historical aspects of deafness. Topics include the history of deaf education, notable deaf persons, various deaf organizations and their significance, the mechanics of hearing and causes of hearing loss.

SLIS 1150 Introduction to the Deaf World **4.5 – 0 – 4.5**

This course introduces the student to the American Deaf community. The interrelationship between language and culture as well as a study of socialization, norms and traditions inherent in the Deaf community will be examined. The preservation of American Sign Language and its role in establishing a sense of cultural identity will also be addressed.

SLIS 1170 Visual Gestural Communication **4.5 – 0 – 4.5**

Prerequisite (1): SLIS 1010

Students will develop capabilities in non-verbal communication, mime and visual gestural communication, studying gestures as a form of communication and a basis for visual language. Emphasis is on learning to visualize what is to be signed and building expressive and receptive communication skills.

SOCIOLOGY (SOCI)

SOCI 1010 Introduction to Sociology **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

This course involves an introduction to the scientific study of society and human social behavior; focuses on the concepts of research methods, research findings, sociological theories, society, institutions, groups, social structure, culture, social interaction, socialization, social problems, social inequality and social change; and is designed to be transferable.

SOCI 1050 Sociology of Healthcare **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

This course is a systematic attempt to relate sociological concepts to the fields of physical and mental health and illness. An overview of socio-cultural aspects of health is provided. The community and healthcare, medical education and the hospital as a social institution are included.

SOCI 1100 Native American Studies **4.5 – 0 – 4.5**

This course introduces the myths, rituals, life-ways and world-views that compose the diverse cultural traditions of Native American peoples and include both historical and contemporary experiences.

SOCI 1250 Introduction to Anthropology **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

This course provides an introduction to the study and methods of anthropology and the methodologies used to study human societies and cultures. The course covers ancient to present societies.

SOCI 2050 Current Social Problems **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

The course provides an introductory consideration of several major current social issues. It improves the student's ability to understand and systematically investigate concerns vital to everyday life. Issues treated include poverty, pollution and population, as well as conflict, institutional problems, social change and alienation.

SOCI 2060 Multicultural Issues* **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

Multicultural Issues is the study of diversity in the United States and other societies. It emphasizes value systems, power relationships, forms of societal organization and cultural contributions of selected racial, ethnic or cultural minorities. In addition, such emerging minorities as those based on ability, sexual orientation and/or age are explored. Special attention is paid to sociological theories of subordinate/dominant group relations.

**SOCI 1010 or SOCI 2050 recommended prior to taking SOCI 2060.*

SOCI 2110 Introduction to Gerontology **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

This course provides an introduction to the social aspects of aging. Of special significance are issues such as family relationships, socialization to retirement and old age, perceptions and stereotypes of the aged, bereavement and loss and other physical and psychological consequences of this stage of development.

SOCI 2150 Survey of Human Sexuality **4.5 – 0 – 4.5**

Prerequisite (1): PSYC 1010 or SOCI 1010

This course is a survey of the topic of human sexuality. The student is presented with materials concerning the biological, psychological and socio-cultural facets of sexual behavior. (Cross-listed as PSYC 2150)

SOCI 2160 Marriage and the Family **4.5 – 0 – 4.5**

Reading assessment and college-level reading skills are recommended

Designed for all students, the purpose of the course is to develop an understanding of the social role of marriage and family living. Topics covered include courtship and preparation for marriage, conflict situations and adjustments between spouses, parent-child relationships, the family in the community and disintegration of the family unit.

SOCI 2310 Criminology **4.5 – 0 – 4.5**
Prerequisite (1): SOCI 1010
This course examines crime and criminology from a broad social perspective. Topics covered include definitions of crime, the various causes of criminal behavior and systems of criminal justice.

SOCI 2311 Juvenile Justice **4.5 – 0 – 4.5**
Prerequisite (1): SOCI 1010
This course examines juvenile delinquency from a social and practical perspective. Topics covered include definitions of juvenile delinquency, the various causes of juvenile delinquency and methods of prevention, treatment and control.

SOCI 2450 Social Psychology **4.5 – 0 – 4.5**
Prerequisite (1): PSYC 1010 or SOCI 1010
This is an introductory course in social psychology that demonstrates the interaction of social groups and individual behavior. (Cross-listed as PSYC 2450)

SOCI 2550 Popular Readings in Social Science **4.5 – 0 – 4.5**
Reading assessment and college-level reading skills are recommended
The psychological authenticity of selected popular psychology and self-help books are explored in this course. Emphasis is placed on theoretical foundations and therapeutic or pseudo-therapeutic advantages and disadvantages of each book. (Cross-listed as PSYC 2550)

SOCI 2650 Research Methods **4.5 – 0 – 4.5**
This is an introductory course in research methods and design. The course is comprehensive, and as such, students will examine the entire research process including formulating research questions, sampling, measurement (surveys, scaling, qualitative and quantitative), research design (experimental and quasi-experimental), data analysis and research writing. The course also addresses the major theoretical and philosophical underpinnings of research including the idea of validity in research, reliability of measures and ethics. The course materials and text use an informal, conversational style to engage both the beginning and the more experienced student of research methods in several areas of study (e.g., psychology, business, nursing, social work, political science and education).

SOCI 2900 Special Topics in Sociology **Variable**
This course permits instruction in special content areas that are not included in other Sociology courses.

SPANISH (SPAN)

SPAN 0100 Introduction to the Study of Spanish **2 – 0 – 2**
This is an introduction to the study of Spanish language that will focus on Spanish grammar components. Basic vocabulary is learned as well as study tips for learning a foreign language. This course is designed for those with no previous foreign language study.

SPAN 1050 Spanish for Business Professionals I **4.5 – 0 – 4.5**
Those in business are finding the need to interact more and more with Spanish-speaking customers. To better serve these customers, it is important to have a grasp of Spanish language and culture. This course will provide students with the necessary skills to communicate in Spanish at a beginning level.

SPAN 1051 Spanish for Business Professionals II **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 1050
The student continues to focus on the skills begun in SPAN 1050 Spanish for Business Professionals I such that they can communicate with Spanish customers at a more advanced level.

SPAN 1060 Spanish for Medical Personnel I **4.5 – 0 – 4.5**
Those in the medical profession are finding that they need to help and serve more Spanish-speaking clients than they have in the past. To serve these clients better, it is important that these medical professionals have a grasp of the Spanish language and culture. This course will provide students with the necessary skills to communicate in Spanish at a beginning level.

SPAN 1061 Spanish for Medical Personnel II **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 1060
The student continues to focus on the skills begun in Spanish 1060 such that they can communicate with their Spanish clients at a more advanced level.

SPAN 1110 Elementary Spanish I* **7.5 – 0 – 7.5**
This is the first of two introductory courses where the student begins to learn the fundamentals of Spanish. Stress is upon comprehension, pronunciation, speaking, listening, reading, writing and vocabulary. The course content includes nouns, adjectives and present and past tenses, as well as a study of Spanish-speaking cultures.

**Students enrolling in SPAN 1110 are expected to possess college-level reading and writing skills.*

SPAN 1120 Elementary Spanish II* **7.5 – 0 – 7.5**
Prerequisite (1): SPAN 1110
The student continues to focus on the skills begun in SPAN 1110. The past, future, conditional and perfect tenses and subjunctive mood will be covered, as well as the study of Spanish-speaking cultures.

> **Students must know present and preterit tenses to be successful in SPAN 1120. Students who have not yet mastered these skills should register for SPAN 1110.*

SPAN 1410 Spanish for High Beginners I **7.5 – 0 – 7.5**
Prerequisites: Strong oral skills in Spanish, instructor approval, taking the Spanish language placement examination and/or previous beginning-level coursework in Spanish
This is the first of two courses for individuals considered to be high beginners in Spanish—people with previous beginning-level coursework in Spanish, heritage speakers, people who understand 50 percent or more of Spanish conversation and/or people who have strong oral skills in Spanish. This class is designed for students who are too advanced for SPAN 1110 but who are also not quite prepared for SPAN 1120. Emphasis is placed on grammar and vocabulary acquisition, speaking and listening and culture; additionally, a special focus will be given to development of reading and writing skills. The course content will include nouns, pronouns, adjectives and present, progressive, preterit and imperfect indicative tenses. This class will be held in Spanish.

SPAN 1411 Spanish for High Beginners II **7.5 – 0 – 7.5**
Prerequisite (1): SPAN 1410
This is the second of two courses for individuals considered to be high beginners in Spanish—people with previous beginning level coursework in Spanish, heritage speakers, people who understand 50 percent or more of Spanish conversation and/or people who have strong oral skills in Spanish. This class is designed for students who are too advanced for SPAN 1120 but who are also not quite prepared for SPAN 2110. Emphasis is placed on grammar and vocabulary acquisition, speaking and listening and culture; additionally, a special focus will be given to development of reading and writing skills. The course content will include nouns, pronouns, adjectives, subjunctive mood tenses, commands, perfect indicative and subjective mood tenses, conditional and future. This class will be held in Spanish.

SPAN 1810 Spanish Study Abroad **Variable**
Prerequisite (1): SPAN 1110 or SPAN 1120 or an equivalent course, subject to instructor approval
This is a course abroad that will begin on campus and later include travel to a Spanish-speaking country. Students will research the Spanish-speaking country to be visited and will present information gathered to peers. The class will then visit the cities and monuments of the country. Students will be able to use the Spanish acquired in the classroom to communicate in everyday situations in hotels, restaurants, cafés and on tours and will be able to try a new type of cuisine and lifestyle. Exposure to the culture, food, music and dance in the country will enable students to experience diverse cultural practices, culinary habits, music styles and dance forms.

SPAN 1900 Special Topics in Spanish I **Variable**
Topics not normally addressed by other 1000-level courses in the Spanish curriculum may be offered in SPAN 1900. Examples include Spanish social service personnel and courses examining specific cultures.

SPAN 2050 Intermediate Business Spanish I **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 1051
This reinforces the skills learned in SPAN 1050 and 1051. This course will be taught primarily in Spanish and prioritizes oral communication.

SPAN 2051 Intermediate Business Spanish I **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2050
This reinforces the skills learned in SPAN 2050. This course will be taught primarily in Spanish and prioritizes oral communication.

SPAN 2060 Intermediate Spanish for Medical Personnel I **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 1061
This course is a continuation of the skills learned in SPAN 1060 and SPAN 1061. This course will be taught primarily in Spanish and will be focused on oral communication.

SPAN 2061 Intermediate Spanish for Medical Personnel II **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2060
This course is a continuation of the skills practiced in SPAN 2060. This course will be taught primarily in Spanish and will be focused on oral communication.

SPAN 2110 Intermediate Spanish I* **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 1120, SPAN 1051 or SPAN 1061
Intermediate Spanish I provides a review of grammar and stresses vocabulary building. Classes, conducted mainly in Spanish, emphasize comprehension and discussion.

> **Students enrolling in SPAN 2110 must have a sound knowledge of all the tenses in the Spanish language and be prepared to begin conversing entirely in Spanish.*

SPAN 2120 Intermediate Spanish II **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2110 or equivalent
SPAN 2120 continues the grammar review of SPAN 2110 and introduces literary readings. Classes are conducted in Spanish.

SPAN 2210 Conversation Skills I **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2120
To truly understand Spanish, one must be comfortable speaking it. This course provides the skills needed to hold a beginning conversation in Spanish. Reading passages and video presentations on Spanish-speaking culture and civilization will be used as topics for class conversations. The class will be conducted entirely in Spanish and emphasize conversation, reading, writing and comprehension.

SPAN 2220 Conversation Skills II **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2210
This course is a continuation of Conversation Skills I. It provides the skills needed to hold an intermediate conversation in Spanish. Reading passages and video presentations on Spanish-speaking culture and civilization will be used as topics for class conversations. The class will be conducted entirely in Spanish and emphasize conversation, reading, writing and comprehension at a high-intermediate level.

SPAN 2490 Introduction to Latin American Literature **4.5 – 0 – 4.5**
Prerequisite (1): SPAN 2120
This course is a general survey of Spanish American Literature, and it will cover various genres from pre-Columbian literature through present day. Through close critical readings of literary texts, students will attempt to discern the relationship of each writer to the particular cultural, political and historical context and study the means by which he/she attempts to articulate the Spanish American experience and identity through writing.

SPAN 2900 Special Topics in Spanish II* **Variable**
Prerequisite (1): SPAN 2120 and ability to converse in basic Spanish
Topics not normally addressed by the other 2000-level courses in the Spanish curriculum may be offered in SPAN 2900. Examples include advanced grammar, intensive conversation and pronunciation and period literature.

**SPAN 2900 is conducted entirely in Spanish.*

SPAN 2982 Spanish for Medical Personnel Internship **Variable**
Prerequisite (1): SPAN 2061
The internship provides the student with the opportunity to work in a medical setting that offers Spanish interpretation experience. To develop an internship to meet his/her academic and career goals, the student must meet with his/her faculty advisor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

SPEECH (SPCH)

SPCH 1110 Public Speaking **4.5 – 0 – 4.5**
Prerequisite (1): ENGL 1010
This course provides both theoretical basis and practical instruction to speaking effectively in public. Areas covered include topic selection, audience analysis, speech preparation and organization, support of speeches with credible research, strategic and creative language use, effective listening and delivery skills and common types of public speeches.

SPCH 1120 Argumentation and Debate **4.5 – 0 – 4.5**
Prerequisite (1): ENGL 1020, SPCH 1110, PHIL 1100 or instructor approval
Students will experience a practical approach to the rudiments of argumentation and the debate. This course will test the student's ability to critically research, listen, speak, think and argue in intelligent, logical discourse. Students will be able to understand and apply the art of debate by the end of the course. This course is designed for those students who have career goals in the political science, law and/or business professions.

SPCH 1220 Communication in Small Groups **4.5 – 0 – 4.5**
This course provides the student with theories of small group communication and small group decision making, as well as a non-threatening arena for the practice of these processes within the small group. Any student who works or expects to work in small groups or teams in the workplace benefits from this course.

SPCH 1300 Interpersonal Communication **4.5 – 0 – 4.5**
The purpose of this course is to introduce the student to theories of communication between two people in a variety of contexts and situations. The student will learn how to analyze and understand the communication in interactions and relationships, as well as to develop a vocabulary with which to discuss and critique the communication within those relationships. This knowledge will be used to improve student's day-to-day communication skills.

SPCH 2900 Special Topics in Communications **Variable**
Prerequisite (1): SPCH 1110
This course permits instruction in content areas not included in current course offerings in communication. These content areas include but are not limited to advanced public speaking preparation and presentation, rhetorical criticism and media analysis.

THEATRE (THEA)

THEA 1000 Introduction to the Theatre 4.5 – 0 – 4.5
This course surveys the various facets of the art and craft of theatre with emphasis on the relationship between theatre and culture as well as theatre's contributions to literature, film and television. All elements and professions of theatre are explored: the dramatist, producer, director, actor, production designer, stage manager, tech director and crew and the role of the audience. An overview of theatre history and theatrical genres is included.

THEA 1110 Theatre Technology I 3 – 3 – 4
This course is an introduction to the basic arts and crafts of technical theatre with an emphasis on safety procedures. Included are overviews of properties, carpentry, scenery, painting, sets, lighting, costuming and wardrobes. This course is a prerequisite for admission to the Certified Theatre Technology Apprentice Program offered chiefly through the auspices of the Omaha Community Playhouse.

THEA 1120 Theatre Technology II 2.5 – 4.5 – 4
Prerequisite (1): THEA 1110
This course is a continuation of THEA 1110 with a focus on real work situations and experiences. Topics covered include theatrical costuming, stage management, arts administration, front of house and box office procedures. Students choose a major and minor focus area within technical theatre from carpentry, lighting, rigging, costuming, sound, properties, wardrobe and special effects.

THEA 1130 Theatre Technology III 2.5 – 4.5 – 4
Prerequisite (1): THEA 1120
This is a continuation of THEA 1120. Students continue to focus on chosen areas within technical theatre.

THEA 2010 Script Analysis 4.5 – 0 – 4.5
The student learns to do close readings of dramatic texts to explore themes and technical challenges. Analysis from technical, performance and directorial points of view and the importance of unity in a production's technical elements are emphasized in the course.

THEA 2020 Fundamentals of Acting I 4.5 – 0 – 4.5
This is a basic acting course for the student with limited acting experience but who has an interest in studying the demands and the discipline of acting, especially in live theatre. Exercises in relaxation, movement, voice, concentration, trust, partner/group interaction, improvisation, imagination and memorization prepares the student for basic character and scene work.

THEA 2021 Fundamentals of Acting II 4.5 – 0 – 4.5
Prerequisite (1): THEA 2020
This course is a continuation of THEA 2020 with further practice in characterization and scene work. Students will be required to develop two scenes and two monologues with a focus on character development and acting process.

THEA 2030 Playwriting I 4.5 – 0 – 4.5
Prerequisites (2): ENGL 1010 and ENGL 1310 or instructor approval
THEA 2010 as a co-requisite is strongly recommended
This course is an introduction to the craft of the playwright. Students study the fundamentals of dialogue, character development and scene structure through writing exercises and workshop/discussion.

THEA 2031 Playwriting II 4.5 – 0 – 4.5
Prerequisite (1): THEA 2030 or instructor approval
This is a workshop offering further practice, analysis and study of playwriting. Students will also examine play submission guidelines and play production considerations.

THEA 2040 Movement for the Actor 4.5 – 0 – 4.5
This course is a study and practice of physical techniques and approaches to develop physical self-awareness, freedom of expression, flexibility and endurance, awareness of space and time, centers and energy for characterization and performance.

THEA 2050 Voice for the Actor 4.5 – 0 – 4.5
This course is a study and practice of vocal techniques to develop physical alignment and release, breathing and resonance, articulation and range, imagery and text for performance.

THEA 2110 Theatre History I 4.5 – 0 – 4.5
The student critically examines cultural, political, philosophical, technical and stylistic developments in theatre history from its origins to 1700 A.D. Course content includes the evolution of acting, directing, technical theatre, theatre spaces and forms of drama, as well as discussion of historically significant dramatic works.

THEA 2120 Theatre History II 4.5 – 0 – 4.5
Prerequisite (1): THEA 2110 or instructor approval
A continuation of Theatre History I, this course covers the various developments in theatre history from 1700 A.D. to present.

THEA 2150 Stage Rigging 2 – 7.5 – 4.5
Prerequisite (1): THEA 1110 or instructor approval
The course builds on concepts and skills introduced in THEA 1110 with specific emphasis on stage rigging.
Students gain practical application of fundamental skills in the installation of flying scenery, as well as use of stage rigging equipment under show conditions. Rigging topics—including repair and maintenance, motorized rigging, trussing and special applications—are covered in the lecture portion and reinforced during labs under non-production conditions.

THEA 2160 Principles of Stage Lighting **2 – 7.5 – 4.5**
Prerequisite (1): THEA 1110 or instructor approval
This course builds on concepts and skills introduced in THEA 1110 with specific emphasis on stage lighting. Students gain practical application of fundamental skills in light console operation and temporary installations of lighting systems under show conditions. Lighting topics—including wiring and repair of electrical cables, basic color theory and refraction principles—are covered in the lecture portion and reinforced during labs under non-production conditions.

THEA 2170 Stage Management **4.5 – 0 – 4.5**
This course is an introduction to the creative and administrative work of stage management including responsibilities and methods in rehearsal and productions, union considerations and communication skills for collaboration.

THEA 2200 Arts Administration **4.5 – 0 – 4.5**
This course is an overview of issues relevant to the operation of arts organizations including publicity, promotion, box office/admission, facilities management, programming and planning.

THEA 2480 Introduction to Dramatic Literature I **4.5 – 0 – 4.5**
Prerequisite (1): ENGL 1020, ENGL 1240 or THEA 2010 with instructor approval
The student examines the elements of drama, notable dramatic works and the major dramatic genres from antiquity through the 17th century. (Cross-listed as ENGL 2480)

THEA 2481 Introduction to Dramatic Literature II **4.5 – 0 – 4.5**
Prerequisite (1): ENGL 1020, ENGL 1240 or THEA 2010 with instructor approval
The student examines the elements of drama, notable dramatic works and the major dramatic genres from the 18th century through contemporary works. (Cross-listed as ENGL 2481)

THEA 2900 Special Topics in Theatre **Variable**
Prerequisites (1): Instructor approval
Topics not normally addressed in other Theatre courses may be offered in THEA 2900.

THEA 2901 Special Topics in Playwriting **Variable**
Prerequisite (1): THEA 2030 or instructor approval
This course will address specific playwriting topics such as documentary theatre, community-based or devised theatre, adaptation from non-dramatic texts and solo performance and/or accommodate special availability of noteworthy playwright teaching artists.

THEA 2910 Special Topics: GPTC **1.5 – 0 – 1.5**
This course focuses on the first step in producing a play: the play reading. Students will attend 15 hours of readings and critique sessions of new plays in the short play labs and longer play labs. Students will examine the dramaturgical elements of the plays (structure, world of the play, language, characters, plots and themes), the production component outlines in the stage directions (casting, staging, tech/set design) and the discussion of the works by panelists and audience members. Students will keep a journal of their observations and responses to short play labs/play labs and will submit a short paper that synthesizes their discoveries about the types of plays being written and the challenges playwrights face in refining and, ultimately, seeing their work produced on stage.

THEA 2920 Theatre Practicum **Variable**
Prerequisites (1): Instructor approval
Students can earn credit for practical theatre production experience ranging from but not limited to design, construction, performance and promotion.

THEA 2981 Cooperative Study I	0 – 120 – 3
THEA 2982 Cooperative Study II	0 – 120 – 3
THEA 2983 Cooperative Study III	0 – 120 – 3
THEA 2984 Cooperative Study IV	0 – 120 – 3
THEA 2985 Cooperative Study V	0 – 120 – 3
THEA 2986 Cooperative Study VI	0 – 120 – 3

The cooperative study courses are special cooperative education experiences with the College and the Omaha Community Playhouse. The student works a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

UTILITY LINE TECHNICIAN (UTIL)

UTIL 1010 Pole Climbing☯ **4 – 1.5 – 4.5**
Co-requisite (1): UTIL 1030 (must be taken at the same time or completed earlier)
This course instructs the student in proper and safe skills to climb wooden structures.

UTIL 1020 Electricity I☯ **5 – 1.5 – 5.5**
The student learns about electricity theory, OHM's Law, series circuits, parallel circuits and series/parallel circuits including direct currents (DC) and alternating currents (AC). This course also covers inductance, capacitance and single phase transformers.

UTIL 1030 Ropes, Rigging and Safety☯ **4 – 1.5 – 4.5**
Co-requisite (1): UTIL 1010 (must be taken at the same time or completed earlier)
This course acquaints students with tools, equipment, basic rope knots and splices.

UTIL 1040 Generator Theory **5 – 3 – 6**
Prerequisite (1): UTIL 1020
The student will study permanent magnet induction and synchronous AC generators while learning diagnosis and troubleshooting skills.

UTIL 1110 Line Construction I☯ 5 – 1.5 – 5.5
Co-requisite (1): UTIL 1030 (must be taken at the same time or completed earlier)
This course acquaints the student with the use of hand tools, hand signals, basic wiring techniques, pole setting, framing and the use of digger-derrick equipment. The student also learns to identify electrical apparatus.

UTIL 1240 Underground Distribution Systems I☯ 5 – 1.5 – 5.5
Prerequisite (1): UTIL 1110
This course introduces the students to URD systems, underground cables and apparatus. Students will be introduced to various termination techniques and will construct a model URD system in the lab.

UTIL 2020 Transformer Theory☯ 5 – 1.5 – 5.5
Prerequisite (1): UTIL 1020
This course includes principles of electromagnetic induction, use and application of transformers, banking of transformers, maintenance, testing and proper connection of transformers.

UTIL 2030 Secondary Electrical Systems 4 – 1.5 – 4.5
Prerequisites (2): UTIL 1020 and UTIL 1110
This course covers the application of transformer banks, metering systems and watt-hour meters. Their specifications and relationship to delivery systems for supplying various voltages are studied.

UTIL 2040 Power Generator Applications 5 – 3 – 6
The student will study the specific application of standby and emergency power generation. This course will cover theory and diagnostic applications.

UTIL 2110 Line Construction II 5 – 1.5 – 5.5
Prerequisite (1): UTIL 1110
This course includes stringing and sagging wire, dead ends, anchoring, guying, clipping in and splicing of overhead conductors. Students are also certified in Red Cross standard first aid and cardiopulmonary resuscitation (CPR).

UTIL 2210 Overhead Distribution Systems I☯ 5 – 1.5 – 5.5
Prerequisites (2): UTIL 1010 and UTIL 1110
This course includes the design and construction of overhead distribution systems involving staking and layout of lines using the National Electrical Code (NEC), National Safety Code and construction specifications.

UTIL 2220 Overhead Distribution Systems II 5 – 1.5 – 5.5
Prerequisite (1): UTIL 2210
This is an on-site field participation in the construction of overhead distribution systems using techniques previously studied.

UTIL 2230 Distribution Systems Maintenance 4 – 1.5 – 4.5
Prerequisites (8): UTIL 1110–2220
Techniques for maintenance of overhead and underground distribution systems are studied through the usage of proper tools and equipment using designated specifications to gain practical field experiences.

UTIL 2240 Underground Distribution Systems II 4 – 1.5 – 4.5
Prerequisite (1): UTIL 1240
This course emphasizes construction, maintenance and troubleshooting of underground distribution systems including trenching and termination and primary and secondary cables.

UTIL 2310 Substation Systems 3.5 – 1.5 – 4
Prerequisites (3): UTIL 1020, UTIL 2020 and UTIL 2220
This course covers substation equipment, voltage regulation, substation voltage systems, switching and substation maintenance.

UTIL 2410 Advanced Metering Systems 3.5 – 1.5 – 4
Prerequisites (3): UTIL 1020, UTIL 2020 and UTIL 2230
This course covers single-phase and three-phase metering, current transformers, potential transformers, primary and secondary metering, kvar metering and load control.

UTIL 2981 Internship 0 – 40 – 8
Prerequisites (1): Completion of Utility Line Technician Program coursework
This is supervised work experience for ten weeks and will normally be a Summer quarter activity following the completion of Utility Line Technician Program coursework. The student submits regular reports while employed at an electrical utility or industrial plant. The student must have a Class A, O restriction Commercial Drivers License (CDL) to participate in an internship. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

VIDEO/AUDIO COMMUNICATION ARTS (VACA)

VACA 1010 Audio and Video Production Engineering 4.5 – 0 – 4.5
This course introduces the student to audio and video production engineering. The student achieves competence in both audio and video systems and how to interconnect various pieces of equipment at the production- or equipment-user level. Background information is presented to allow the student to reason out connection scenarios and make desired equipment set up functional.

VACA 1020 Audio I **2.5 – 1.5 – 3**
This course is an introduction to the theory and application of the sound production process with emphasis on learning and practicing sound acquisition and recording techniques. Microphone acquisition, basic audio editing and track mixing and sound for video and/or music are the basis for assignments.

VACA 1110 Introduction to Scriptwriting **4.5 – 0 – 4.5**
Prerequisite (1): ENGL 1010
This course introduces scriptwriting for video production, television and motion picture film. Using the two-columns and screenplay formats, lab exercises and assignments use the structure of concept, treatment and finished script. Broadcast/corporate examples and films are reviewed. Scripts for projects in Moving Image Lab, Video II and Video III are encouraged.

VACA 1130 Video I* **2.5 – 1.5 – 3**
Prerequisite (1): PHOT 1500 or EIMA 1100
This course is an introduction to the video medium. The basics of operating a video camera, recording a quality image and sound and editing tape are learned and practiced. Both studio and location assignments provide practical learning opportunities.

**PHOT 1500 is required for Video majors only.*

VACA 2020 Audio II **3.5 – 3 – 4.5**
Prerequisite (1): VACA 1020
This course is a continuation of Audio I. Additional microphone and recording techniques are learned and practiced. Computer desktop editing and track mixing, recording and editing are introduced and emphasized. Sound for video as well as digital media and the Internet are the basis for assignments.

VACA 2030 Audio III **3.5 – 3 – 4.5**
Prerequisite (1): VACA 2020
This course is a continuation of Audio II. Advanced recording theory and application is covered for use in a professional sound recording environment. Sound processing and mastering will be covered in depth in this course.

VACA 2050 Pro-Tools **3.5 – 3 – 4.5**
Prerequisite (1): VACA 2020
This course concentrates on the industry standard Pro-Tools Digital Audio Workstation software and hardware. The student will learn how to use advanced Pro-tools techniques and concepts in the professional recording and editing environments.

VACA 2110 Media Scriptwriting **4.5 – 0 – 4.5**
Prerequisites (2): ENGL 1010 and VACA 1110
This is a continuation of VACA 1110. Storytelling techniques and visual imagery relationships are emphasized by using the concept, treatment and scripting process. Emphasis is given to visual and word-image relationships. Industry examples are reviewed. Original public service announcements, commercials and programs are developed using the two-column and screenplay formats. Scripts for projects in Moving Image Lab, Video II and Video III are encouraged.

VACA 2120 Screenwriting Principles **4.5 – 0 – 4.5**
Prerequisite (1): VACA 1110
This course is an overview of writing screenplays for motion picture film. Storytelling using the standard three-act screenplay structure will be covered. Fundamental principles including script format, structure, plot points and character development will be related to sample scripts, films and exercises.

VACA 2130 Video II **2.5 – 1.5 – 3**
Prerequisite (1): VACA 1130
This course is a continuation of Video I. Camera operation, sound recording and editing assignments provide an intermediate skill level of learning and practice. Lighting for the studio and location are introduced and applied.

VACA 2131 Video III **3.5 – 3 – 4.5**
Prerequisite (1): VACA 2130
This course serves as a practicum for individual student production. The student is responsible for the conception, production, direction and post-production of a storytelling media program. The student achieves competence in planning and executing a script to a final product. Key production elements are reviewed and critiqued at each stage of the production.

VACA 2220 Digital Media Editing **3.5 – 3 – 4.5**
Prerequisite (1): PHOT 1500
This course serves as a practicum for digital production or post-production. The student is responsible for the conception, production, direction and post-production of a media program directed towards digital delivery. Key production elements are reviewed and critiqued at each stage of the production.

VACA 2230 Video Post-Production **3.5 – 3 – 4.5**
Prerequisite (1): VACA 1130
This course is an introduction to digital applications such as compositing and media compression for computer and Internet delivery. The student achieves basic competence in appropriate software applications as used in industry.

VACA 2540 Video Portfolio Development **1 – 6 – 3**
Prerequisite (1): VACA 2131 or instructor approval
The student puts the commercial application of the video process into finished form. The student is advised, and work is critiqued. The final product is a comprehensive portfolio of the student's work.

VACA 2900 Special Topics in Video/Audio Communications **Variable**
Prerequisite (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Video/Audio Communications Arts Program.

VACA 2940 MetroVision Practicum 0 – 9 – 3
Prerequisite (1): VACA 2130
This practicum is a studio and field production class. It is a hands-on opportunity for students to gain experience on location, in the studio and with remote video productions. This course stresses the nature of collaborative work and the various stages and processes involved with producing existing regularly scheduled productions and could include the development of new programming. The student gains advanced production experience with lighting, shooting, editing, directing and producing MetroVision programming that will air on the local cable television channel.

VACA 2981 Internship Variable
Through the internship, the student works in a professional video workplace. Types of work involved include a variety of the following: set preparation, video production and post-production and audio production and post-production. Based on state guidelines, the student must complete 40 hours of work for each credit hour in this course.

WELDING TECHNOLOGY (WELD)

WELD 1000 Print Reading for Welders 3 – 0 – 3
This course is a good first welding course for student welders seeking degrees, certificates or diplomas. Students learn the elements of print reading with special emphasis on interpreting welding symbols. Basic welding information will be covered such as fundamentals and selection considerations, weld types, joint design and welding terminology. Students successfully completing this course will be well prepared for success in the program.

WELD 1100 Industrial Cutting Processes 2 – 3 – 3
The student gains a working knowledge of oxy-fuel cutting (manual and machine) and plasma cutting (manual and machine), as well as air carbon arc and plasma gouging.

WELD 1150 Welded Sculpture I 2 – 3 – 3
Students will learn the fundamental skills required to create sculptures in steel and copper using oxyacetylene welding and cutting processes and related metal-working equipment. Students will apply the basic elements and principles of design and practice achieving unity and harmony to a greater degree as they work on succeeding pieces.

WELD 1160 Welded Sculpture II 2 – 3 – 3
Prerequisite (1): WELD 1150
Students will learn the fundamental skills required to create sculptures in steel and copper using gas metal arc welding and plasma cutting processes and other welding (GMAW) related metal-working equipment. Students will combine these skills with those learned in Welded Sculpture I and will apply the basic elements and principles of design and practice achieving unity and harmony to a greater degree as they work on succeeding pieces.

WELD 1200 GMAW (MIG) – Steel I 2 – 3 – 3
The theory and techniques used in basic gas metal arc welding to produce sound fillet welds in the flat and horizontal positions and sound groove welds in the flat and vertical positions are covered. Students will weld using short-circuit and spray modes of metal transfer.

WELD 1261 Combination Welding – Automotive 2 – 3 – 3
The student is acquainted with the various welding and cutting techniques applicable to the automotive field.

WELD 1262 Quick Start 2 – 3 – 3
This course is designed to give the student a quick start into a welding career by preparing the student to pass the type of welding test given by many employers. Students learn the fundamentals of oxyacetylene cutting, gas metal arc welding and air carbon arc cutting. Print reading for welders will also be explored.

WELD 1300 Oxyacetylene Welding (OAW) 2 – 3 – 3
This course covers basic use of equipment and basic skills necessary to be knowledgeable in this discipline. This is an excellent preparatory class for TIG welding classes.

WELD 1400 GTAW (TIG) – Steel I 2 – 3 – 3
Students are encouraged to take oxyacetylene welding before attempting this class. The theory and techniques used in basic gas tungsten arc welding of steel in the flat and vertical positions are emphasized. The many types of tungsten electrodes and use of different gases are studied. The equipment and its proper adjustment are covered.

WELD 1410 GTAW (TIG) – Stainless I 2 – 3 – 3
Prerequisite (1): WELD 1400
The theory and techniques used in basic gas tungsten arc welding of stainless steel in the flat and vertical positions are emphasized. The many types of tungsten electrodes and use of different gases are studied. The equipment and its proper adjustment are covered.

WELD 1420 GTAW (TIG) – Aluminum I 2 – 3 – 3
Prerequisite (1): WELD 1410
The theory and techniques used in basic gas tungsten arc welding of aluminum in the flat and vertical positions are emphasized. The many types of tungsten electrodes and use of different gases are studied. The equipment and its proper adjustment are covered.

WELD 1500 SMAW (Stick) – Flat 2 – 3 – 3
This course covers fundamental understanding and skills in the safe use of arc welding equipment. Typical operations include striking the arc, making fillet welds in the flat and horizontal positions and groove welds in the flat position. A variety of methods are used to examine the weldments.

WELD 1510 SMAW (Stick) – Vertical 2 – 3 – 3
Prerequisite (1): WELD 1500
Vertical position weldments are basic to welding technology. Reverse polarity and the various techniques used in the vertical position are studied including the use of low-hydrogen electrodes.

WELD 1700 Introductory Fabrication 2 – 3 – 3
Prerequisites (5): DRAF 1100, WELD 1000, WELD 2200, WELD 2400 and WELD 2510
This is a basic course in the fabrication of projects. The use of layout tools and project drawings or sketches are explored. The emphasis is on actual versus estimated time and cost considerations.

WELD 2200 GMAW (MIG) – Steel II 2 – 3 – 3
Prerequisite (1): WELD 1200
This course is a continuation of GMAW – Steel I including fillet and groove welds in the horizontal and overhead positions and includes the study of pulsed spray transfer.

WELD 2220 GMAW (MIG) – Stainless 2 – 3 – 3
Prerequisite (1): WELD 2200
This course is an advanced course covering gas metal arc welding of stainless steel in all positions using short-circuit, spray and pulsed-spray modes of metal transfer. (Formerly WEL 201)

WELD 2230 GMAW (MIG) – Aluminum 2 – 3 – 3
Prerequisite (1): WELD 2200
This is an advanced course covering gas metal arc welding of aluminum in all positions using short-circuit, spray and pulsed-spray modes of metal transfer.

WELD 2240 Flux-Cored Arc Welding I 2 – 3 – 3
Prerequisite (1): WELD 2200
This course covers gas shielded and self-shielded flux-cored arc welding in the flat and vertical positions using semi-automatic equipment.

WELD 2241 Flux-Cored Arc Welding II 2 – 3 – 3
Prerequisite (1): WELD 2240
This course covers gas shielded and self-shielded flux-cored arc welding in the horizontal and overhead positions using semi-automatic equipment.

WELD 2242 Submerged Arc and Metal Cored Welding 2 – 3 – 3
Prerequisite (1): WELD 2200
This course covers submerged arc-flat position and metal-cored arc welding using semiautomatic equipment.

WELD 2400 GTAW (TIG) – Steel II 2 – 3 – 3
Prerequisite (1): WELD 1400
This course is a continuation of GTAW – Steel I covering welding in the horizontal and overhead positions and includes the study of pulse arc welding.

WELD 2410 GTAW (TIG) – Stainless II 2 – 3 – 3
Prerequisite (1): WELD 1410
This course is a continuation of GTAW (TIG) – Stainless I covering welding in the horizontal and overhead positions and includes the study of pulse arc welding.

WELD 2420 GTAW (TIG) – Aluminum II 2 – 3 – 3
Prerequisite (1): WELD 1420
This course is a continuation of GTAW – Aluminum I covering welding in the horizontal and overhead positions and includes the study of pulse arc welding.

WELD 2500 SMAW (Stick) – Horizontal 2 – 3 – 3
Prerequisite (1): WELD 1500
The ability to weld in the horizontal position is important in pipe welding. Students studying pipe welding may elect to take this course.

WELD 2510 SMAW (Stick) – Overhead 2 – 3 – 3
Prerequisite (1): WELD 1510
Overhead weldments are basic to the welding technology. The various techniques used in this welding position are studied including the use of low-hydrogen electrodes.

WELD 2520 SMAW (Stick) – Pipe I 2 – 3 – 3
Prerequisites (2): WELD 1100 and WELD 2510
This course features basic pipe welding and techniques involving pipe to plate and open root joint design.

WELD 2530 SMAW (Stick) – Pipe II 2 – 3 – 3
Prerequisite (1): WELD 2520
Advanced pipe welding is stressed including root and cover passes and testing of weld joints in the 2, 5 and 6G positions.

WELD 2540 SMAW (Stick) – Pipe III 2 – 3 – 3
Prerequisites (3): WELD 1100, WELD 2400 and WELD 2520
This course includes GTAW (TIG) open root and SMAW (Stick) E7018 Fill/Cap pipe to pipe welding in the 2G, 5G and 6G positions.

WELD 2600 Gas Shielded Arc Welding: Pipe 2 – 3 – 3
Prerequisites (3): WELD 1100, WELD 2241 and WELD 2400
This course includes root, fill and cover passes on pipe in all positions with gas-shielded arc welding. Gas tungsten arc welding root passes are also included.

WELD 2710 Industrial Fabrication Project 2 – 3 – 3
Prerequisite (1): WELD 1700
This course consists of the construction of projects by applying techniques and principles acquired in previous quarters.

WELD 2810 Welder Pre-Qualification 2 – 3 – 3
Prerequisites (1): Special course requirements; contact a full-time instructor
Students wanting to be a certified welder must pass a Welder Performance Qualification Test. This course is preparation for such a test. The student will identify the appropriate code and welding procedure, become familiar with the requirements of the test, prepare the test coupons and work on skill building in preparation for the test. Testing will not be done as part of this course.

WELD 2820 Welder Qualification (Certification) 1 – 0 – 1
Prerequisites (1): Special course requirements; contact a full-time instructor
In this course, students welders wishing to be certified welders take the Welder Performance Qualification Test.

WELD 2900 Special Topics in Welding Variable
Prerequisites (1): Instructor approval
This course permits instruction in special content areas not included in other courses of the Welding Technology Program.

WELD 2981 Internship 0 – 30 – 6
Prerequisite (1): Instructor approval
The internship provides the student with the opportunity to apply his/her knowledge, learn new techniques and get on-the-job training at an approved worksite. To develop an internship to meet his/her academic and career goals, the interested student must contact his/her faculty advisor. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

WORKPLACE SKILLS (WORK)

WORK 0200 Career and Learning Strategies Variable
This course is designed to assist the student to acquire skills related to career awareness and choice, learning and study skills, basic skills enhancement and other strategies. After successful completion of this course, the student better understands the process of achieving his/her educational goals. (Formerly RDLS 0200)

WORK 1011 Orientation for International Students 1 – 0 – 1
This course provides an introduction to the facilities and services at MCC and guidelines for living in the United States and Omaha, Neb. The student learns how to use Student Services at MCC. The student learns practical information about banking, employment, entertainment, housing, medical issues, the legal system, shopping, social behaviors, social security and transportation to enhance his/her participation in community activities and services in the Omaha area. (Formerly RDLS 1011)

WORK 1230 Career Planning 1 – 0 – 1
This course assists the student in making a career choice. Topics include values, clarification of interests, skill assessment, the decision-making process and introduction to career exploration activities. (Formerly RDLS 1230)

WORK 1250 Learning Anxiety Variable
This course helps the student address issues such as test and math anxiety. Topics focus on mastering learning strategies to assist him/her in overcoming this anxiety. (Formerly RDLS 1250)

WORK 1300 Essential Technology Skills Variable
This course introduces the student to essential technology skills and provides a beginning overview of basic microcomputer components and functions, various computer-based technologies such as Internet, email, College resources, file management, word processing, Power Point and Excel spreadsheet basics. (Formerly RDLS 1300).

WORK 1310 Microcomputer Essentials* 1 – 0 – 1
This course has been designed as an introduction to the use of a microcomputer system. It will define the basic terminology related to computers. The study will focus on hands-on activities and computer programs to help students become acquainted with the use of microcomputer keyboard and mouse. (Formerly WORK 130A)

**WORK 1310 is a one-hour class perfect for the person with no computer experience. The class focus is very basic and provides a strong foundation to build upon.*

WORK 1320 Introduction to Learning Technologies* 2 – 0 – 2
This course is an introduction to the use of various technologies. The course will focus on hands-on activities to help students become acquainted with technology tools and access and use information. The course will also examine some of the current issues regarding technology in the areas of privacy, security and ethics. (Formerly WORK 130B)

**WORK 1320 is great for the person with limited computer knowledge before beginning INFO 1001. This course introduces various tools for accessing, processing and managing information.*

WORK 1330 Introduction to Microsoft Word 2 – 0 – 2
This course has been designed as an introduction to Microsoft Word. It will introduce basic word processing skills, including creating, formatting and editing documents. Hands-on activities will also help students become acquainted with the use of toolbars.

WORK 1340 Introduction to Microsoft PowerPoint **2 – 0 – 2**

Prerequisite (1): WORK 1330 or computer proficiency

This course provides students with the essential skills to present information in their classes. The course will focus on hands-on activities. It is designed for the student with some computer experience but little or no PowerPoint experience. (Formerly WORK 130C)

WORK 1350 Introduction to Microsoft Excel **2 – 0 – 2**

Prerequisite (1): WORK 1330 or computer proficiency

This course provides students with the essential skills needed to analyze data for their classes, jobs, businesses or personal finances. The course will focus on hands-on activities. It is designed for the student with some computer experience but little or no Microsoft Excel experience. (Formerly WORK 130D)

WORK 1400 Employability Skills **Variable**

This course allows students to enhance their interpersonal skills, improve their ability to work in teams, learn to communicate effectively, think creatively use problem-solving techniques and explore competitive job-seeking strategies. (Formerly RDLS 1400)

WORK 1410 Secrets to Business Success **3 – 0 – 3**

This course is designed to provide an in-depth look at the soft skills and self-management skills needed to provide effective customer service and support in all workplace environments. (Formerly RDLS 1410)

WORK 2900 Special Topics in Learning Skills **Variable**

Prerequisite (1): Assessment testing or instructor approval

This course permits instruction in various skill areas related to reading and learning strategies not included in other Workplace Skills courses. (Formerly RDLS 2900)

WORK 2981 Internship **Variable**

Prerequisites (2): WORK 1400 and WORK 1410

The student applies the principles, procedures and rules learned in employability including usage of proper work behavior and work attitude, basic skills and human relations skills. The work setting is a public office or department of a business or nonprofit organization. The student records the tasks performed in a portfolio, which is reviewed periodically by the work supervisor and faculty sponsor to assure appropriate competencies are developed and/or reinforced. (Formerly RDLS 2981)

Program Planning Worksheet

Name of Program:_____

General Education Requirements:

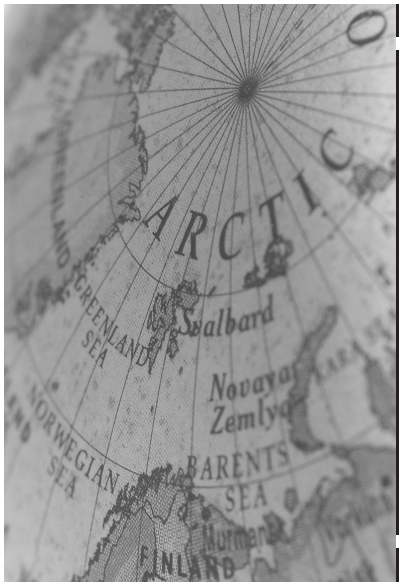
Communications			Humanities		
Course No.	Credit Hrs.	Qtr.	Course No.	Credit Hrs.	Qtr.
Mathematics			**Natural Sciences**		
Course No.	Credit Hrs.	Qtr.	Course No.	Credit Hrs.	Qtr.
Other			**Social Sciences**		
Course No.	Credit Hrs.	Qtr.	Course No.	Credit Hrs.	Qtr.

Program Core Requirements:

Course No.	Credit Hrs.	Qtr.	Course No.	Credit Hrs.	Qtr.

Electives:

Course No.	Credit Hrs.	Qtr.	Course No.	Credit Hrs.	Qtr.


ARCTIC
GREENLAND
SEA
Svalbard
Novaya
Zemlya
NORWEGIAN
SEA
BARENTS
SEA
Murmansk
FINLAND

PERSONNEL

OFFICE OF THE PRESIDENT
Randy Schmailzl, President, B.S., Nebraska Wesleyan University; M.S., University of South Dakota

EXECUTIVE ADMINISTRATION
Jeff Berg, Vice President of Corporate Education & Training, B.S., United States Naval Academy; M.B.A., Bryant University
Patricia Crisler, Associate Vice President for Development, B.A., M.Ed., University of Nebraska–Lincoln
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CAMPUS DEANS AND DIRECTORS
Terry Casey, Student Services Director, South Omaha Campus, A.A.S., Metropolitan Community College; A.A.S., Community College of the Air Force; B.A., Peru State
James Cloyd, Executive Director of the Applied Technology Center, B.S., Dana College
Todd Hansen, Executive Director of the Fremont Area Center, B.S., University of Nebraska–Kearney; M.A., Doane College
Arlene Jordan, Campus Dean, South Omaha Campus, A.A.S., Metropolitan Community College; B.A., Bellevue University; M.S., University of Nebraska–Omaha
Diana Kerwin-Kubr, Student Services Director, Elkhorn Valley Campus, A. A., Metropolitan Community College; B.A., Bellevue University
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Carl Fielder, Director of Career Education, B.A., Huron College; M.Ed., University of Northern Colorado; Ed.D., University of Nebraska–Lincoln
Christian Beaty, Welding Technology Instructor, A.A.S., Southeast Community College; Member, American Welding Society
John Berger, Electrical Technology Instructor, State of Nebraska Electrical Contractor License; A.A.S., Metropolitan Community College
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David Eledge, Industrial and Commercial Trades Instructor, A.A.S,, Metropolitan Community College; Stationary Engineer Certificate, City of Omaha; Journeyman Machinist, U.S. Department of Labor
Donald Gilliland, Diesel Technology Instructor, B.S., University of Nebraska-Lincoln
Richard Hart, Architectural Design Technology Instructor, B.A., Washington University; M.B.A., Webster University
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Joseph Jerdon Jr., Automotive Technology Instructor, A.A.S., Metropolitan Community College; Certification, General Motors Training Center; NIASE Certified, USAF Electronics School
Lewis Klingbeil, Diesel Technology Instructor
John Knapp, Architectural Design Technology Instructor, B.E.D., Kansas University; M.Ed., Iowa State University
John Longbrake Jr., Mechanical Design Technology Instructor, B.S., Chadron State College; M.S., Wayne State College
David Lueders, Mechanical Design Technology Instructor, A.S., B.S., University of Nebraska
Patrick McKibbin, Auto Collision Technology Instructor
Roger Miller, Construction Technology Instructor, Journeyperson; Carpenters Apprenticeship; Certificate, Nebraska Law Enforcement Training Center
Richard Newcomer, Utility Line Technician Instructor, Journeyperson; A.A.S., Metropolitan Community College; B.A., Bellevue University
Tom Price, Auto Collision Technology Instructor, DuPont Refinishing Training Center–Missouri; Certificate, U.S. Air Force
James Revoy, Air Conditioning, Heating and Refrigeration Technology Instructor, Certificate, Universal Trade School; B.S., University of Nebraska–Omaha
Robert Ruther, Air Conditioning, Heating and Refrigeration Technology Instructor, Certificate, Universal Technical Institute; A.A.S., Metropolitan Community College; Heat Pump Certification, Carrier, York and Coleman
Richard Sandvig, Truck Driving Instructor, Certified Commercial Motor Vehicle Third Party Examiner, State of Nebraska
Trevor Secora, Construction Technology Instructor, Journeyperson, Carpenter, Local 444; A.A.S., Metropolitan Community College
Lenton Stinton, Automotive Technology Instructor, A.A.S., Metropolitan Community College; NIASE Certified; General Motors and Ford Training Centers; Iowa State University
Yuliya Vishnevskaya, Civil Engineering Technology Instructor, B.S., M.S., St Petersburg Mining University; M.S., University of Nebraska–Lincoln

BUSINESS AREA

Daryl Hansen, Dean of Business, B.A., Parsons College; M.A., University of Nebraska–Lincoln; M.S.W., University of Nebraska–Omaha
Robert W. Baker, Management Instructor, B.S., University of Nebraska; M.B.A., University of Utah
Richard Carter, Economics and Business Instructor, B.A., Texas A & M University; M.A., University of Oklahoma
Liliana Cox, Management and Entrepreneurship Instructor, M.S., M.B.A., Creighton University; Six Sigma Green Belt Certificate, Aveta Solutions
Carol Gottuso, Management Instructor, B.S., Creighton University; M.B.A., University of Kansas
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Brian O'Malley, Culinary Arts and Management Instructor, B.A., New England Culinary Institute
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Educational Terms

Certificate – A Certificate of Achievement is awarded for a program of study that is at least 48 credit hours in length.

Co-requisite – Requirements to enter selected courses have been established. The student must complete these requirements while attending the desired course.

Course description – This is a statement found in the College catalog that identifies the content of a specific course.

Course number – This number identifies a specific course, such as BSAD 1000 (Introduction to Business).

Course objective – Each course offered in the College has defined objectives that all faculty have agreed make up the essentials of the course. These objectives are part of the syllabus distributed at the beginning of each class. Individual instructors may determine how to best assess the extent to which students have mastered these objectives: tests, homework assignments, presentations, research projects, etc.

Course section – This number, an example shown here as 1A, identifies a specific class such as BSAD 1000 1A (Introduction to Business at Elkhorn Valley Campus on Monday, Wednesday and Friday [MWF] from 10 a.m. to 10:50 a.m.).

Course subject – This four letter code identifies the area of study such as Business Management (BSAD).

Credit hour – This is a unit used in giving credit for a course and usually determines the number of hours per week the student is in class.

Degree – The associate degree is offered to a student completing a two-year program of study. MCC offers Associate in Arts, Associate in Science and Associate in Applied Science degrees.

Diploma – This document indicates successful completion of one of the College's programs of study.

Elective – An elective class permits the student to select a course of his/her choice to apply toward program requirements.

Full-time student – Any student enrolled in 12 or more credits hours is considered a full-time student.

Grade point average (GPA) – This is the cumulative, numerical average of the grades the student has received. The range may be from a low of 0.0 to a high of 4.0.

Internship – This is work related to the student's program of study for which he/she receives college credit. The internship is generally taken near the end of a program of study.

Major – A major indicates a specific group of classes needed to complete a certificate or degree program. It is also referred to as the program of study.

Option – A degree or certificate option is a specialization within a program. A degree or certificate is awarded for the program not the option.

Part-time student – Any student enrolled in few than 12 credit hours is considered a part-time student.

Prerequisite – Requirements to enter selected courses have been established. The student must complete these requirements before enrolling in the course.

Program of study – A program of study indicates a specific group of classes needed to complete a certificate or degree program. It is also referred to as the major.

Quarter – This is one of four periods of instruction offered at MCC: Fall (FA), Winter (WI), Spring (SP) and Summer (SS). Each quarter is approximately 11 weeks in length. The student must register and pay for each quarter he/she attends. The academic year begins with Summer quarter.

Transcript – An official record of the grades earned in an institution.

Transfer – The conveyance of a student's credits from one institution to another.

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Campus/Center Information/Map

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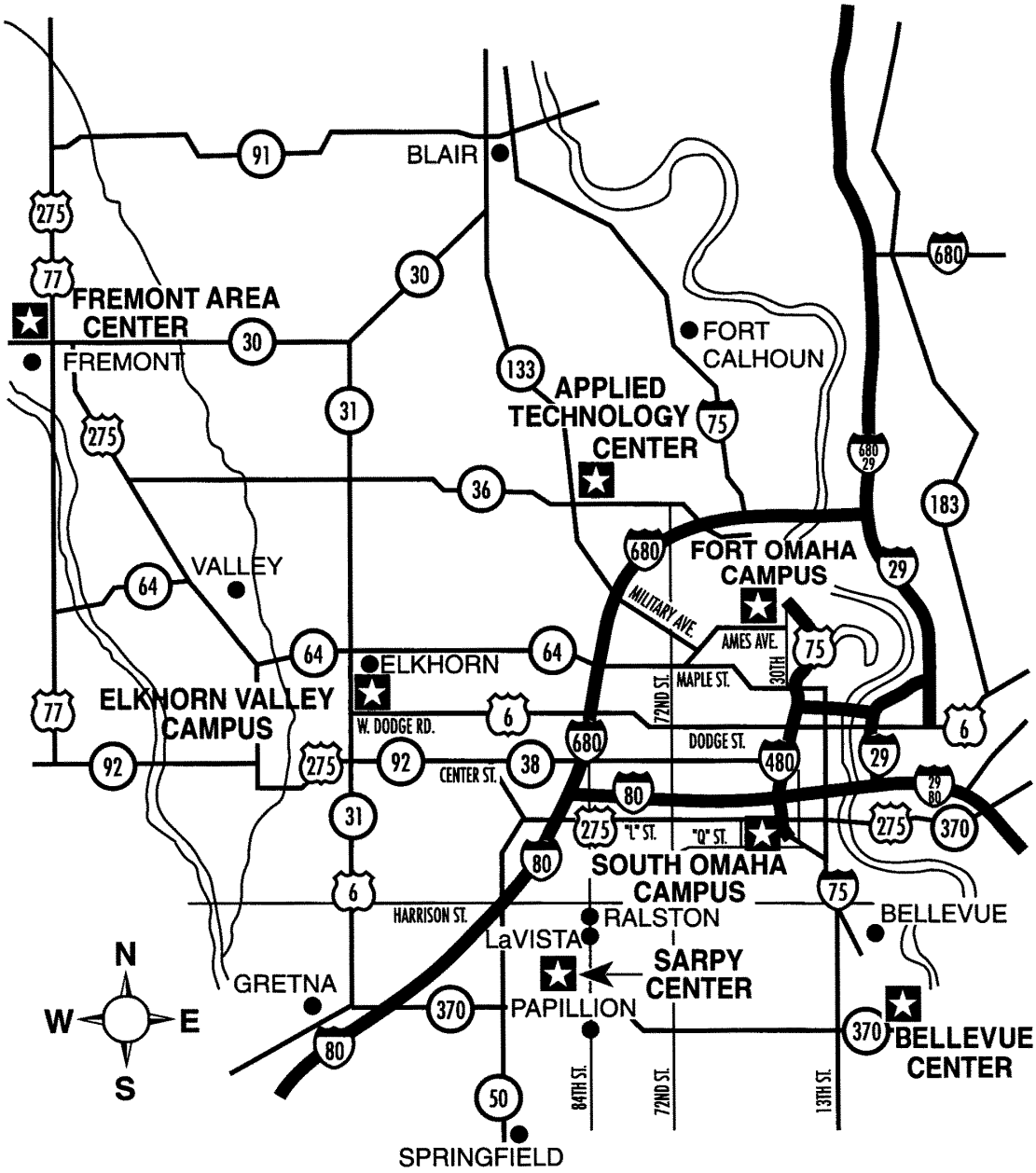

Applied Technology Center
104th & State Streets

Bellevue Center
Arboretum & Highway 370

Elkhorn Valley Campus
204th & West Dodge Road

Fort Omaha Campus
30th & Fort Streets

Fremont Area Center
9th & Broad Streets

Offutt Air Force Base
Sac Boulevard

Sarpy Center
91st & Giles Road

South Omaha Campus
27th & Q Streets

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