

2014-2015
COLLEGE
CATALOG

## IMPORTANT CONTACTS

## Contact Center/Registration

402-457-2400
800-228-9553
www.mccneb.edu

## Academic Support Commons

Ekhoorn Valley Campus - 402-289-1266

## Adult Education (AE)/GED

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
Temporary Bookstore Hours/Options
Call for available dates/times
Applied Technology Center - 402-763-5800
Fremont Area Center - 402-721-2507

## Business \& Training Services

 402-457-2592Campus Deans/Center Directors
Applied Technology Center - 402-763-5810
Elkhorn Valley Campus - 402-289-1312
Fort Omaha Campus - 402-457-2201
Fremont Area Center - 402-317-3001
MCC Express - Vinton Square - 402-738-4060
Sarpy Center/Offutt - 402-537-3838
South Omaha Campus - 402-738-4600
Washington County Technology Center - 402-317-3001

## Community Education (noncredit) <br> 402-457-2620

## Disability Support Services

Elkhorn Valley Campus - 402-289-1436
Fort Omaha Campus - 402-457-2580
Sarpy Center - 402-537-3841
South Omaha Campus - 402-738-4757
Financial Aid
Central Office - 402-457-2330
Military/Veterans Services - 402-738-4619
International Student Services/Enrollment
402-457-2281

## MCC LOCATIONS

## Applied Technology Center

10407 State Street (104th and State streets)
Omaha, NE 68122

## Elkhorn Valley Campus

829 N. 204th Street (204th and Dodge Road)
Elkhorn, NE 68022
Fort Omaha Campus
5300 N. 30th Street (30th and Fort streets)
Omaha, NE 68103
Fremont Area Center
835 N. Broad Street (9th and Broad streets)
Fremont, NE 68025

## Learning and Tutoring 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

## Libraries

Elkhorn Valley Campus - 402-289-1206
Fort Omaha Campus - 402-457-2306
South Omaha Campus - 402-738-4506 or 402-444-4850
Sarpy Center - 402-537-3864
MCC Foundation and Alumni
402-457-2346
MCC Police/Public Safety
All locations - 402-457-2222

## Military/Veterans Services

402-738-4619

## Records/Transcripts <br> 402-457-2353

## Single Parent Homemaker Services

402-457-2319
Student Financial Services (Student Accounts)
402-457-2405
Student Support Services (TRiO)
402-457-2567

## Testing Centers

Applied Technology Center - 402-763-5800
Elkhorn Valley Campus - 402-289-1278
Fort Omaha Campus - 402-457-2204
Fremont Area Center - 402-721-2507
Sarpy Center - 402-537-3803
South Omaha Campus - 402-738-4613
Washington County Technology Center - 402-763-5900
Weather Cancellation Line
402-457-2499

MCC Express - Vinton
3002 S. 24th Street (24th and Vinton)
Omaha, NE 68108

## Sarpy Center

9110 Giles Road (91st and Giles Road) La Vista, NE 68128

## South Omaha Campus

2909 Edward Babe Gomez Avenue (27th and Q streets)
Omaha, NE 68107
Washington County Technology Center
1844 Washington Street (Highway 30 and Highway 75) Blair, NE 68008

## METROPOLITAN COMMUNITY COLLEGE

## 2014-2015 Catalog

This catalog is effective Fall quarter 2014. Every possible step has been taken to ensure its accuracy; however, sometimes changes must be made in the interest of the students or the College. Metropolitan Community College reserves the right to cancel or modify courses. The official catalog is the PDF version found online. There is also an online version of the catalog and any minor changes made during the year are reflected in a catalog addendum document also found online.

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## THE COLLEGE

MCC is a comprehensive community college focused 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 200 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. Continuing Education provides opportunities for lifelong learners. Business and industry can arrange specialized training through MCC's Business \& Training Services.
Classes are offered at a variety of times and at convenient locations throughout our service area of Dodge, Douglas, Sarpy, and Washington counties.
To accommodate students with busy schedules, MCC offers e-learning options that let students take classes at home, at the office, at a community site through Campus Share (course conferencing), or on the Internet. More than 300 online classes are offered each quarter.
Best wishes to you as you explore the opportunities that MCC has to offer!

## Mission

MCC serves our community with distinction. We are a role model in higher education. We 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


## MCC'S History

The present Nebraska community college system started 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.
Today, 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 the community with distinction. MCC is a role model in higher education.
MCC offers more than 200 one-year and two-year degrees and awards in business administration; computer and office technologies; culinary arts, hospitality, and horticulture; industrial and construction technologies; health and public services; social sciences and services; visual and electronic technologies; and 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.
With a 2011-12 enrollment of more than 42,000 students (credit and noncredit), MCC continues to be 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.


Ron Hug
District 1


Jim Monahan District 3


Michelle Nekuda District 5


Linda McDermitt District 1


Tim Dempsey District 3


Steve Grabowski District 5


Fred Conley District 2


Roger Garcia District 4


Tim Potter At Large


Dave Newell District 2


Crystal Rhoades District 4

## College Accreditation

MCC is accredited by the Higher Learning Commission:
The Higher Learning Commission
230 S. LaSalle St. Suite 7-500
Chicago, IL 60604-1411
800-621-7440; 312-263-0456
Fax: 312-263-7462
www.ncahlc.org
For further information on MCC accreditation visit www.mccneb.edu/businessandcommunity/accreditation.asp.

## 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 Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326.
- 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 Collision Technology programs are accredited by the National Automotive Technicians Education Foundation (NATEF), 101 Blue Seal Drive, Suite 101, Leesburg, VA 20175.
- All MCC Business programs are accredited by the Accreditation Council for Business Schools and Programs (ACBSP), 11520 W. 119th St., Overland Park, KS 66213.
- The Culinary Arts and Management program is accredited by the American Culinary Federation Accrediting Commission (ACFEIAC), 10 San Bartola Drive, St. Augustine, FL 32086.
- The Dental Assisting program is accredited by the Commission on Dental Accreditation, 211 E. Chicago Ave., Chicago, IL 60611.
- The Early Childhood Education program is accredited by the Nationa Association for the Education of Young Children (NAEYC), 1313 L St. NW Suite 500, Washington, DC 20005.
- The Paramedicine program is accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions, 4101 W. Green Oaks Blvd. Suite 305-599, Arlington, TX 76016.
- The Financial Planning Certificate of Achievement in personal financial planning is a registered program with Certified Financial Planning Board of Standards, Inc., 1670 Broadway Suite 600, Denver, CO 80202.
- The Healthcare Information and Administration program is in candidacy status, pending accreditation review by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 233 N . Michigan Ave., 21st Floor, Chicago, IL 60601-5800.
- The Human Services program is accredited by the Council for Standards in Human Service Education (CSHSE), 2118 Plum Grove Road \#297, Rolling Meadows, IL 60008.
- The Medical Assisting Program is accredited by the Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, 727-210-2350.
- The Paralegal 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. Suite 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 Road, 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.


## Diversity

MCC believes that diversity, in many forms and expressions, is essential to its educational mission and to its success as an institution. MCC values the pluralistic nature of society and recognizes diversity that includes, but is not limited to, race, ethnicity, religion, culture, social class, age, gender, sexual orientation, and physical or mental capability. MCC respects the variety of ideas, experiences, and practices that such diversity entails. It is MCC's 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. MCC celebrates and embraces diversity as a way to promote respect and enhance academic experiences, making the College a welcoming place to learn and grow while meeting the needs of a diverse population.

Faculty and staff are committed to creating curriculum and learning environments 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 is 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 $\$ 10,000$ 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

## ACADEMIC CALENDAR

## For Summer 2014 - Summer 2015

## Summer 2014 (14/SS)

| Classes begin for 10-week and first five-week <br> sessions | June 6 (F) |
| :--- | :--- |
| Census date for first five-week session* | June 12 (TH) |
| Census date for 10-week session* | June 19 (TH) |
| Independence Day recess (College closed) | July 4 (F) |
| Classes end for first five-week session | July 11 (F) |
| Classes begin for second five-week session | July 12 (SA) |
| Census date for second five-week session* | July 18 (F) |
| Classes end for 10-week and second five-week <br> sessions | Aug. 15 (F) |

Fall 2014 (14/FA)

| Labor Day recess (College closed) | Sept. $1(\mathrm{M})$ |
| :--- | :--- |
| Classes begin | Sept. $2(\mathrm{~T})$ |
| Census date* | Sept. $15(\mathrm{M})$ |
| Classes end | Nov. $17(\mathrm{M})$ |

## Winter 2014-2015 (14/WI)

| Thanksgiving Day recess (College closed) | Nov. 27 - 28 (TH-F) |
| :--- | :--- |
| Classes begin | Dec. 1 (M) |
| Census date* $^{*}$ | Dec. $12(\mathrm{~F})$ |
| Last class day before holiday recess | Dec. 23 (T) |
| Holiday recess (College closed) | Dec. 25 - Jan. 1 (TH-TH) |
| Classes resume after holiday recess | Jan. $2(\mathrm{~F})$ |
| Martin Luther King recess (College closed) | Jan. $19(\mathrm{M})$ |
| No classes | Feb. $24(\mathrm{~T})$ |
| Classes end | Feb. $26(\mathrm{TH})$ |

## Summer 2015 (15/SS)

| Classes begin for 10-week and first five-week <br> sessions | June 5 (F) |
| :--- | :--- |
| Census date for first five-week session* | June 11 (TH) |
| Census date for 10-week session* | June 18 (TH) |
| Independence Day recess (College closed) | July 3-4 (F-SA) |
| Classes end for first five-week session | July 11 (SA) |
| Classes begin for second five-week session | July 12 (SU) |
| Census date for second five-week session* | July $17(F)$ |
| Classes end for 10-week and second five-week sessions | Aug. 15 (SA) |

## For Summer 2014 - Summer 2015

*Census dates are used by colleges to determine enrollment figures and to determine students' eligibility for financial aid disbursements.
MCC uses a quarter system with four academic quarters designated as SS (Summer), FA (Fall), WI (Winter), and SP (Spring). Academic quarters are 11 weeks in length (except for the Summer quarter with one 10-week and two fiveweek sessions).
Standard courses are full-quarter classes that begin and end within the designated academic quarter dates (see begin and end dates in the academic calendar). Non-standard courses may run for less than the full quarter, more than the full quarter, and/or may have non-standard begin and end dates not within the designated academic quarter dates.

## Spring 2015 (14/SP)

| Classes begin | March 6 (F) |
| :--- | :--- |
| Census date* | March 19 (TH) |
| Spring recess (College closed) | April 4-5 (SA-SU) |
| Classes resume after spring recess | April 6 (M) |
| Classes end | May $21(\mathrm{TH})$ |
| Memorial Day recess (College closed) | May $25(\mathrm{M})$ |

## ABOUT THE MCC CATALOG

## 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.

## Major Requirements

Associate degrees and certificates of achievement 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 their general education courses with their major requirements to ensure timely graduation.

## Course Descriptions

Descriptions of all courses currently taught at MCC can be found in the Courses section of this catalog. Each course description provides a brief summary of the course content. Prerequisites, corequisites, lecture - lab - credit hours, and other pertinent course information can be found in this section. Courses marked with a B indicate the course is offered online; those marked with a © indicate a hybrid format (part classroom/part online).

## Prerequisites and Corequisites

Many of the courses required to complete a major or to meet general education requirements have prerequisites. Course prerequisites comprise a course (or courses) or other criteria that must be completed prior to enrollment in that course. If a course has one or more prerequisites, they are noted under the course title in the course descriptions section. (Note: Some prerequisites may have their own criteria that need to be completed.)
When enrolling in a course, the prerequisites for the current catalog year are the ones that must be met even though students are graduating under the provisions of an earlier catalog.
A limited number of courses also have corequisites that are required to be taken at the same time as the course described. Corequisites appear beneath the prerequisites. In some cases, previous completion of the required corequisite is acceptable and noted.

## New College Students

For those students who are just starting their college education or who are returning to college after a long absence, MCC offers a course titled College Success Strategies (RDLS 1200 (p. 228)). This course helps students in setting goals, managing their time, improving their reading, and enhancing their notetaking and test-taking skills. This course, along with any developmental courses needed helps students better succeed in college and helps them meet their academic, personal, and professional goals. RDLS 1200 has no prerequisites and may be used as an elective toward a degree or certificate when permitted.

## Developmental Classes and Basic Skills Assessment

College-level 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. Based on the skills assessment, students may then be required to take developmental courses prior to starting college-level coursework in some program areas.

## General enrollment requirements for new students

Any person may be enrolled who (1) has a high school diploma or equivalent* or (2) is at least 18 years of age and wishes to benefit from a program of study at the College. Additionally, high school students may be enrolled through the early entry process, detailed in Admission Requirements (p. 10).
*MCC accepts high school diplomas from accredited high schools and those earned through the Correspondence High School online program offered by UNL and accredited by the Nebraska Department of Education; however, all other high school diplomas earned online are not accepted. Individuals who have not completed high school are encouraged to obtain their GED that has been developed by the General Educational Development Testing Service of the American Council on Education. More information on MCC's Adult Basic Education Program can be obtained at www.mccneb.edu/lws/ae/default.asp.
Enrollment at the College, however, does not mean admission to all courses or programs or guarantee financial aid. Students may be required to take developmental coursework or prerequisite credit courses/programs prior to entering MCC classes. The College reserves the right to evaluate requests for enrollment and to refuse enrollment to any person when considered to be in the best interest of the College.
The American College Testing (ACT) placement test is not required; however, students who have taken the ACT within the last two years may have the scores sent to MCC or bring a copy of the score report when meeting with an advisor.

## Enrollment Requirements

## Full-time vs. part-time status

Students enrolled in 12.0 or more credit hours during a quarter are considered full-time students. Students enrolled in less than 12.0 credit hours during a quarter are considered part-time students.
Students wishing to enroll in more than 25.0 credit hours need to meet with an academic advisor or counselor to request permission. Generally, only students with a 2.5 or higher G.P.A. for the preceding quarters or demonstrated academic success are permitted to carry more than 25.0 credit hours.

## Admission to specific programs

Some programs have specific requirements and a formal admissions process. Among the items generally considered in determining the eligibility of students for admission to programs are educational and occupational experiences and other reasonable standards to ensure that the student possesses the potential to complete the program successfully. The College and programs reserve the right to deny admission to any students who would not be employable in their respective area of study.
The College may require students 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.
Students who do not meet the requirements for a specific program might become eligible after completing appropriate work in developmental studies or prerequisite credit classes.

## Reservation of rights to enrollment

The College reserves the rights to limit the number of students enrolled at the College and/or to specific programs. Decisions regarding enrollment at the College and to specific programs are made in accordance with any lawful criteria and/or procedures, whether published or unpublished, as determined by the College or its officials.

## Students with disabilities

MCC is committed to providing appropriate services and accommodations for any student with a documented disability through Disability Support Services. To be eligible for services, students must identify themselves to DSS and provide documentation of their disability. Once appropriate documentation is received, DSS works with students to determine reasonable accommodations. 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 any Student Services office.

## Visiting students

Students enrolled at other institutions who wish to attend MCC for coursework that transfers back to their home institution must meet the prerequisites for the MCC courses. Students may provide an unofficial document to satisfy that requirement. Please contact an academic advisor or the Contact Center for more information.

## Students with transfer credits

## Transferring to MCC

Students who have attended another college and wish to transfer to MCC to complete a certificate or degree program should schedule an appointment with an academic advisor to discuss transfer of credits. Students who are non-degree seeking at MCC may be required to provide unofficial transcripts in order to satisfy prerequisites.

## Submitting your transcripts

Students who wish to transfer credits from another college to MCC must provide official transcripts and declare a program of study so the incoming transcripts can be evaluated against the requirements for that program or degree. To mail official transcripts for evaluation, contact the school and have the transcript sent to:
Metropolitan Community College
Attn: Records
P.O. Box 3777

Omaha, NE 68103-0777
Students may also hand deliver an official transcript from another institution to the Records office on the Fort Omaha Campus. The transcript must be in a sealed envelope from that institution.
If students are having their official transcript emailed to MCC through an electronic transcript provider (Parchment, Scrip-Safe, National Student Clearinghouse, etc.), then it must be emailed to transcripts@mccneb.edu.
Transcripts are required once students have met with an advisor and declared a major. For advisement questions, call 402-457-2400 to speak with a Contact Center advisor or to schedule an appointment with an advisor.

## Transcript evaluation

Transcripts are typically evaluated on a course-by-course basis, so this evaluation cannot be done via email or over the phone. Courses not offered by MCC are not transferred in nor are courses that are less in credit/quarter hours than the courses offered at MCC.
The following parameters are used to evaluate transcripts:

- Institution must be regionally accredited by one of the following agencies:
- Middle States Association of Colleges and Schools Middle States Commission on Higher Education (MSCHE)
- New England Association of Schools and Colleges Commission on Institutions of Higher Education (NEASC-CIHE)
- The Higher Learning Commission (HLC)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACS)
- Western Association of Schools and Colleges Accrediting Commission for Community and Junior Colleges (WASC-ACCJC)
- Western Association of Schools and Colleges Accrediting Commission for Senior Colleges and Universities (WASC-ACSCU)
- Course content must be similar to MCC's
- Grade of $C$ or better must have been received
- Credit hours must be equal
- Courses are evaluated based on the program of study and general education requirements
If students change their academic program, a re-evaluation may be requested by completing a re-evaluation form. Visit
www.mccneb.edu/sos/records/transreeval. asp for the form.
Once transcripts are evaluated, postcards are sent to students informing them of the results. Students may also log on to their My Services account to view this information (under academic profile, unofficial transcripts).


## International transcript evaluation

For students who wish to have an international transcript reviewed by MCC for possible credit transfer, they must first have it evaluated by a credential evaluation consultant. College degrees obtained outside the U.S. are only accepted when interpreted by transcript service members of the National Association of Credential Evaluation Services. A list of suggested evaluators may be found at: www.mccneb.edu/sos/records/courseequivalency.asp.
Students are encouraged to contact any or all of the consultants for cost and information. Students who choose to have a transcript evaluated by one of the listed consultants are strongly encouraged to have a course by course review, list the course credit hours for each course, and list letter grades (A-F) earned. Once a credential evaluation consultant has reviewed the transcript, an official evaluation should be sent to:
Metropolitan Community College
Attn: Records
P.O. Box 3777

Omaha, NE 68103-3777
International transcripts that have been evaluated by a credential evaluation consultant are reviewed using MCC's transcript evaluation guidelines/policies.

## International Students

## Admission of international students

Prospective F-1 students need to follow these application requirements to apply to MCC:

- All applicants are required to:
- complete an international application for admission form;
- provide proof of English proficiency* either by providing proof of successfully completing a comparable English composition course with a C or higher, taking the ESL COMPASS, or taking 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 Services
Educational Testing Service
P.O. Box 6151

Princeton, NJ 08541-6151, USA
Official test results must be sent to MCC via TOEFL institutional code number 9621.

- provide an official copy of a high school or college diploma or certification in the original language and with certified English translations;
- submit a completed financial affidavit and a current (within six months) official bank statement or letter translated into English and in U.S. dollar equivalency;
- sign a statement acknowledging that they will be enrolled in an international student health insurance policy identified by the College; and
- provide a copy of the passport.
- Applicants applying for a change to F-1 status need to consult with a designated school official in International Student Services for additional requirements.
- Applicants in the United States need to provide a copy of the I-94, admission stamp, and visa (except Canadians) or I-797 Notice of Action indicating the current status.
- Applicants transferring from a language institution, college, or university in the United States are required to provide official transcripts from the respective school(s). Copies of all previous I-20s, employment authorization cards, and the Transfer to MCC form are required.
- F-1 students take assessments in order to determine appropriate course placement, as needed.
- F-1 students must register for 12.0 credit hours or more each quarter to stay in status, unless they have prior authorization from International Student Services.
- F-1 students are considered to be non-residents for tuition purposes.
*Countries exempt from providing English proficiency proof:
Australia
Canada (except Quebec)
Common Wealth Caribbean
Ireland
New Zealand
United Kingdom
For more information, visit www.mccneb.edu/international, email iss@mccneb.edu, or call 402-457-2281.


## International student health insurance

MCC requires all F-1 international students to purchase a health insurance policy through MCC. Students pay the insurance premiums to MCC prior to class registration, and MCC submits the premiums to the insurance company. Call 402-457-2281 or email iss@mccneb.edu for more information.

## Current High School Students

## Admission Requirements

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

- be classified as a high school junior or at least 16 years of age;
- have a minimum $C$ average in high school subjects;
- follow the enrollment policies and procedures of the College (i.e., assessment testing and prerequisite coursework); and
- discuss enrollment with a parent/legal guardian and a high school official.

Students not meeting the above criteria who wish to enroll can submit an Early Entry Standard Enrollment form (available from any Student Services office) and a written request stating the reason(s) they should be considered for enrollment. This form requires the signatures of the student's parent/legal guardian and the high school principal or designee. All Early Entry Standard Enrollment requests should be sent to:

Metropolitan Community College
Attn: Secondary Partnerships
P.O. Box 3777

Omaha, NE 68103-0777
402-457-2373 (fax)
secondarypartnerships@mccneb.edu

## 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 when students have acceptable AP exam scores. For consideration of college credit, students need to have official exam score reports mailed to:
Metropolitan Community College
Attn: Records
P.O. Box 3777

Omaha, NE 68103-0777
For more information about the AP Program, visit
www.collegeboard.com/apstudents.

## Secondary Partnerships

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

## Career Academies

MCC's Career Academy program is designed to provide high school juniors and seniors with opportunities to explore various career fields and get a jumpstart on their postsecondary education. MCC Career Academies increase student awareness in various career fields prior to high school graduation so more informed career choices can be made. Through an MCC Career Academy, students gain practical skills for specific career areas, knowledge of safety procedures, job-seeking skills, interpersonal skills for the workplace, and exposure to a college environment. For more information, visit www.mccneb.edu/secondary or call 402-457-2213.

## CollegeNOW!

CollegeNOW! is a program specifically designed for Nebraska high school students to jumpstart their college education with half-price tuition. Students may take any college course (for which prerequisites are met) at an MCC location or online and receive MCC credit. For more information, visit www.mccneb.edu/secondary or call 402-457-2213.

## Dual Enrollment

Dual Enrollment is a college credit program for high school students. Dual Enrollment allows Nebraska high school students to earn both high school and college credit at the same time. MCC has a written contract with the school district to provide college-level courses to qualified high school students. Most Dual Enrollment courses are offered at the high school during the regular school day. Students register for Dual Enrollment courses with their high school instructor or counselor. Students pay a discounted tuition rate and may transfer their college credit to any college or university that accepts MCC credit. (It is the responsibility of the student to verify whether the course transfers to the receiving institution.) For more information, visit www.mccneb.edu/secondary or call 402-457-2213.

## Gateway to College

MCC's Gateway to College program is a nationally recognized model of a high school diploma completion program for high school dropouts or students who are behind in credits and on the verge of dropping out of school. Gateway to College provides students who have not been successful in the traditional high school environment with the opportunity for a fresh start on a college campus. Students ages 16 -20 who are ready to re-engage in education are given the opportunity to return to school to complete their high school diploma on a college campus while earning dual credit for coursework. The program is designed for student success, beginning with the small size of the first-quarter learning community and a student resource specialist assigned to each student. Students interested in this scholarship program participate in a competitive three-day application and admissions process. To learn more about the Gateway to College program, who is eligible, and how to apply, visit www.mccneb.edu/gtc or call 402-457-2746.

## Academic Advisement

Academic advisors are generally the first point of contact for new students. Advisors can assist students with career exploration, identifying a degree program, 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, and policies. Academic advisors work collaboratively with students, program faculty members, and other College officials.

## Assessment Services (Testing)

The COMPASS basic skills assessment test is available at each MCC Testing Services location. Students participate in basic skills assessments in reading, writing, English, science, and mathematics. Learning and Tutoring Centers, Math Centers, and Writing Centers provide assistance and preparation for placement tests.

Assessment results are needed for new students so they can be placed in courses properly. An assessment test may be needed prior to registering for classes. Visit www.mccneb.edu/testing for more information.

## REGISTRATION

Individuals can register:

- in person with a Student Services professional at one of the campus/center locations
- online using the My Way portal (current or continuing students only)
- by calling the Contact Center at 402-457-2400


## New Students

New MCC students should call 402-457-2400 for more information regarding registration or to make an appointment with an academic advisor at one of the campus/center locations.
Prospective students can access the current class schedule on MCC's homepage to search for classes and check availability. Any person wishing to enroll for 25.0 or more credit hours per quarter needs approval from the campus/center director. Students are responsible for making any changes in their class schedule. All schedule changes are subject to College procedures, refund policies, and deadlines at all times.

## Continuing Students

## Online registration via My Way/My Services

A username and password are required to access online registration. All students can obtain username and password help at the Password Station online at www.mccneb.edu/password if needed.

1. Visit www.mccneb.edu and click My Way to access the portal.
2. Enter username and password to log in.
3. Click My Services for Students.
4. Click Registration (for express registration students need the course synonym or course number from the credit course schedule located on the homepage).
For assistance with online registration and other online services, students can visit a My Way Center located at one of MCC's campus/center locations.

## My Services include:

- registration for credit and noncredit classes
- grades and class schedules
- requests for official transcripts
- option to drop classes
- address change form
- account summaries by quarter
- payment options
- degree audits
- financial aid information


## Phone registration

Call 402-457-2400 or 402-457-5231 (toll-free 800-228-9553).

1. Have your student ID number ready.
2. Have course and section numbers or course synonym numbers available (found on the course schedule on the MCC homepage).

## Change of Registration

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

- On-campus courses may be added after the first class session with instructor approval. Forms are available in Student Services. This does not apply to online courses.
- Changes and refunds are effective on the date the request is received. The amount for a refund is automatically calculated by the date of the withdrawal. Students may view potential refunds by locating the course on the online credit schedule located on the MCC homepage and clicking Important Dates.
- Students may withdraw from a course any time prior to the last day to drop 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.
- Schedule changes are the responsibility of the student. Non-attendance does not constitute an official withdrawal or relieve a student of the financial obligation of tuition.
- Students receiving financial aid are advised to speak with a financial aid representative when dropping classes after the start of the quarter.
Schedule changes are the responsibility of the student. The changes must follow College procedures, refund policies, and deadlines at all times. Academic advisors are available to assist students with schedule changes.


## Course Cancellations

The College may find it necessary to cancel a course due to insufficient enrollment or other extenuating circumstances. Whenever possible, the course is canceled prior to the first class meeting, and the students are notified. Students enrolled in a canceled course receive a full refund.

## Books and Materials

Students are expected to obtain books, supplies, and materials needed for classes. In addition, some programs require the purchase of special items (tools, a camera, etc.). A complete listing of special costs is available at the campus bookstores or online at www.mccneb.edu/bookstores.asp. Students can also explore the textbook exchange at www.mccneb.edu/bookexch.

## FINANCIAL MATTERS

## Financial Aid 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) are 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.

## Financial Aid

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

## Federal Pell Grant

This program provides a direct grant to students 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 enrollment status.

## Campus-Based Programs

The programs listed below are campus-based financial aid programs funded by federal and state government and by MCC. Since the funding available for these programs is limited, eligible students are awarded on a first come, first served basis.

Federal Supplemental Education Opportunity Grant (FSEOG)
Students with exceptional financial need are eligible for this grant. Priority is given to students who are eligible for a Federal Pell Grant and meet the priority deadline for Summer quarter each year.

## Nebraska Opportunity Grant (NOG)

Nebraska residents with exceptional financial need are eligible for this grant. Students must also be eligible for a Federal Pell Grant. Students who are not Nebraska residents and would like information about state grant programs in their state may call the Financial Aid office at 402-457-2330.

## 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 graduating seniors

Seniors enrolled in public and private high schools in the four-county area can apply for a two-year, full-tuition scholarship. Application information is available at the high schools.

## Board of Governors Scholarship for GED graduates

A two-year, full-tuition scholarship is awarded each year to graduating GED students from MCC and other adult education programs in MCC's four-county service area.

## Board of Governors Tuition Grant

Recipients must have financial need based on their FAFSA data and be legal residents of Nebraska. This grant can only be used to pay tuition. Recipients are responsible for paying fees and any tuition not covered by the grant. Students who have already attained a bachelor's degree are not eligible to be awarded these funds.

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 the Financial Aid office. Students should complete the FAFSA each year after January 1 if they plan to apply for any scholarships. Students should contact the Financial Aid office or visit the MCC website 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 scholarships offered by outside foundations. Visit www.mccneb.edu/scholarships for additional information on the application process and deadlines.

## Federal Work-Study

The Federal Work-Study program provides part-time employment for eligible students. 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 the terms and conditions of employment, student eligibility, and available jobs is available from the Financial Aid office. Work-study funding is limited; students who have already attained a bachelor's degree or a professional degree are not eligible for work-study funds.

## Federal Direct Subsidized and Unsubsidized Stafford Loans

This federal program provides low-interest loans to students. Students must file the FAFSA to determine their eligibility for this program. Students who have already attained a bachelor's or professional degree are eligible to apply for this loan.
The maximum amount students can be awarded is determined by dependency status, number of completed credits, and financial need.

Students must be registered for a minimum of 6.0 credits per quarter each quarter they request a loan to be eligible for either type of loan. Repayment of the loan begins at the end of a six-month grace period after students graduate, stop attending, or are registered for fewer than 6.0 credit hours 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. Students must be enrolled in at least 6.0 credit hours.
Information about the terms of both of these loans and sample repayment schedules are available from the Financial Aid office.

Financial assistance information is available from any staff member in the Financial Aid office and the Financial Aid office website, www.mccneb.edu/fa.

## Application Procedures

To apply for financial aid, students must submit the FASFA and include the MCC school code, 004432. Students are encouraged to complete this application as early possible after January 1 each year. Students who meet the priority deadline for the earliest quarter they wish to enroll are guaranteed that funding for which they are eligible is in place prior to the quarter start. The priority processing deadlines for each quarter are as follows:
Summer quarter - March 1
Fall quarter - July 1
Winter quarter - Oct. 1
Spring quarter - Jan. 1

## Free Application for Federal Student Aid

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 online (fafsa.ed.gov). Students who are unable to complete a FAFSA online may complete a paper FAFSA and submit it to the Financial Aid office 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 Record (ISIR), which duplicates the information on the student's SAR, is sent to the Financial Aid office. 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

Some federal aid applicants are selected by the Department of Education for a process called verification. Verification requires that documentation be provided to verify the information submitted on the FAFSA. Students are notified by U.S. mail of all documents needed to complete the verification 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. Students may call the Financial Aid office to re-activate the file at any time during the current academic year once all documents are received.

## General Eligibility Requirements

Students 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 (certificates and specialist diplomas may be concurrently pursued as part of the governing degree program);
- Have a high school diploma or a GED certificate;
- 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); and
- Meet the Financial Aid Satisfactory Progress standards.


## Awarding Procedures

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

- Must have financial need;
- Must have an EFC that the Financial Aid office 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 quarter priority deadline of April 1 receive consideration for the Federal Supplemental Educational Opportunity Grant, Nebraska Opportunity Grant, and Federal Work-Study. The Federal Pell Grant can be applied for throughout the year; however, the Financial Aid office must electronically receive students' SAR information no later than the last day of Spring quarter of the current award year to determine their federal grants eligibility for the award year.


## Grant Payment Authorization and Disbursement Procedures

## Authorization procedures

The Financial Aid office adjusts students' quarterly award amounts based on the enrollment level as of the financial aid census date. Students should contact the Financial Aid office for more information about the census dates for the current award year.
The following types of courses do not count toward enrollment level for financial aid: courses not needed to meet the student's MCC degree requirements, audit courses, CLEP courses, courses transferred in from another institution, dual enrollment courses, or courses that have been repeated more than once after the student received a grade of $R, P, D$, or better.
Credits for late-starting classes do not count toward a student's enrollment level for financial aid until: (1) the class has begun and (2) the instructor has reported that the student is participating in the class.
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 Title IV 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 received a 100 percent refund, aid is reduced to reflect the new enrollment status.
Students should contact the Financial Aid office for more information, especially when adding or dropping classes.

## Disbursement procedures

After all charges (e.g., tuition, books, and supplies) have been deducted from the total amount of the quarterly award, the Student Accounts office issues any remaining credit balance to the student and disburses it according to the student's indicated preference. Initial refunds are issued within two weeks from the census date. After the initial refund date, refunds occur weekly each Friday.

## Return of federal funds

When students complete zero credits for a quarter, they may owe a repayment of a portion of their federal financial aid funds to the U.S. Department of Education, have an outstanding student account balance because MCC was also required to return funds, or both. Federal funds that may have to be returned are Federal Stafford and/or PLUS Loans, Federal Pell Grant, and FSEOG. The Nebraska Opportunity Grant, Board of Governors Tuition Grant, and Federal Work-Study are not affected by this requirement.

Students are considered to have completed zero credits when they formally withdraw from all of their classes (W grades) or informally withdraw from all of their classes by ceasing attendance. Students who receive a grade of F in a class are only considered to have completed the class if they attended past the $60 \%$ point of the quarter. Students who owe a repayment of federal financial aid are notified in writing.
For more information and examples of the return of federal funds calculations, contact the Financial Aid office.

## Financial Aid Satisfactory Progress Policy and Standards

Federal financial aid regulations require MCC to establish a Satisfactory Progress policy for students receiving aid. MCC must notify students of that policy and monitor the progress of all students receiving financial aid to ensure compliance with the policy.
It is the responsibility of all students receiving aid to be familiar with the policy and to ensure that the standards are met by monitoring their own progress. Failure to meet the Financial Aid Satisfactory Progress standards may place students' financial aid in jeopardy. For this reason, students should regularly check their MCC student email and My Way for updates. To be considered in compliance, students must meet all three standards outlined in the Financial Aid Satisfactory Progress policy. Questions about these standards should be directed to the Financial Aid office.

## Standard 1: Percentage of attempted credit hours completed

The percentage of attempted credit hours completed is measured by dividing the cumulative number of completed credits by the cumulative number of attempted credits. The minimum requirement is 67 percent. For financial aid purposes, a course is considered completed if a grade of $A, B, C, D, P$, or $R$ is earned. Grades of $\mathrm{F}, \mathrm{W}$, and I are considered unsuccessful grades and reduce the completion rate.

## Standard 2: Cumulative Grade Point Average (Cumulative GPA)

To receive/continue to receive financial aid, students must maintain a minimum cumulative GPA. The cumulative GPA requirement differs based on the number of credit hours attempted.

## Associate Degree Programs

| Credit hours attempted | Minimum cumulative GPA required |
| :--- | :--- |
| $00.0-29.5$ | 1.5 |
| $30.0-79.5$ | 1.75 |
| $80.0+$ | 2.0 |

## Standard 3: Maximum Credit Limit

The maximum time frame for the completion of a degree is limited by federal regulations to 150 percent of the published number of credit hours required to complete a degree program. This includes transfer credits and all attempted credit hours, including completed credits, audits, incompletes, withdrawals, CLEP, and repeated or failed classes

## Treatment of the following types of courses for satisfactory progress

## Audit courses

Audit courses are ineligible for financial aid funding and do not count toward the number of attempted credits or the number of earned credits; however, they do count toward the degree completion time frame.

## Repeated courses

Students can only receive financial aid once for a repeated course if they have already received a grade of R, P, D, or better in the course. Credits from repeated courses count as attempted and earned credits as well as count toward the maximum credit limit. In addition, grades for the first time the course is taken and all times the course is repeated count toward the Satisfactory Progress cumulative GPA.

## College Level Examination Program (CLEP)

CLEP courses are ineligible for financial aid funding. The credits count as attempted and earned credits as well as count toward the maximum credit limit but do not affect the Satisfactory Progress cumulative GPA.

## Transfer courses

Credits transferred to MCC from another institution count as attempted and earned credits as well as count toward the maximum credit limit but do not affect the Satisfactory Progress cumulative GPA.

## English as a Second Language (ESL) courses

Credits for ESL courses count as attempted and earned credits. Federal, state and institutional financial aid can be received for a maximum of 100.0 attempted ESL credit hours. Students who lose financial aid eligibility because they exceed 100.0 attempted credit hours of ESL may regain aid eligibility when they start developmental classes or college-level classes.

## Developmental courses

Students admitted into financial aid eligible programs are eligible to receive federal aid for up to 45.0 developmental credits. Developmental credits count as attempted and earned credits as well as count toward the maximum credit limit. They also affect the Satisfactory Progress cumulative GPA.

## Dual Enrollment courses

High school students enrolled in MCC courses that will apply toward their high school graduation requirements and earn them credits at MCC are not eligible to receive federal aid. When dual enrollment students graduate from high school, enroll in financial aid eligible programs at MCC, and apply for financial aid, credits for the MCC courses taken under a dual enrollment program count as attempted and completed credits as well as toward the maximum credit limit. These credits also affect the Satisfactory Progress cumulative GPA.

## Financial Aid Satisfactory Progress Statuses

There are nine Satisfactory Progress statuses. Status is determined the first time a student applies for financial aid (even if financial aid was not received for prior quarters) and at the end of every quarter.

## Good Standing (GS)

Good standing status is given to students who meet all three Satisfactory Progress standards (percentage of attempted hours completed, cumulative GPA, and maximum credit limit) or who apply for financial aid for their first quarter of attendance at MCC. To remain in good standing, students must meet all three Satisfactory Progress standards each quarter.

## Warning (WRN)

Students in good standing who do not meet all Satisfactory Progress standards are placed on warning status for one quarter. Students on warning status are eligible to receive financial aid. If at the end of the warning quarter students have met all Satisfactory Progress standards, their status is changed back to good standing. If at the end of the warning quarter students have not met all Satisfactory Progress standards, their status is changed to denied.

## Denied (DEN)

Denied status is given to students who do not meet all Satisfactory Progress standards at the end of their warning quarter. Denied status can be appealed. See the Appeal Procedures section below.

## Monitoring/Probation (MON)

Students on denied status who submit and secure approval of an appeal are placed on monitoring/probation status for one quarter. Students on monitoring/probation status are eligible to receive federal aid and must meet the following requirements during the monitoring/probation quarter: complete 100 percent of attempted credits, achieve a minimum quarterly GPA of 2.0 or higher, and attempt no more than 150 percent of the credits required for their program of study. While on monitoring/probation, students must follow the academic program approved in their appeal.

## Extended Monitoring (MNX)

Students who have been on monitoring/probation, have completed 100 percent of attempted credits, achieve a minimum quarterly GPA of 2.0 or higher, and attempt no more than 150 percent of the credits required for their program of study remain in extended monitoring until they regain good standing.

## Termination (TER)

Students who do not complete 100 percent of attempted credits or achieve a minimum quarterly GPA of 2.0 and are in a monitoring/probation or extended monitoring status may be terminated. Termination is a permanent status and cannot be appealed.

## Max Time Approved (MAX)

Students in denied status because they reached the maximum time frame and students in denied status who will reach the maximum time frame before they complete their program are placed in max time approved status for one quarter if they submit and secure approval of an appeal. Students on max time approved status are eligible to receive federal aid and must meet the following requirements during the max time approved quarter: complete 100 percent of their attempted credits for the quarter and achieve a minimum GPA of 2.00 or higher for the quarter. While on max time approved status, students must follow the academic program approved in their appeal and must only enroll in classes required for their academic program.

## Max Time Extended (MXE)

Students who have been on max time approved status for one quarter, completed 100 percent of their attempted credits for their max time approved quarter, and achieved a quarterly GPA of 2.00 or higher for their monitoring quarter will be placed in max time extended status. The requirements students must meet while on max time extended status are the same as those for max time approved status.

## Max Time Denied (MXD)

Max time denied status is given to students whose previous status was max time approved or max time extended and who did not meet the requirements for max time approved or max time extended. Max time denied status can be appealed. See the Appeal Procedures section below.

## Appeal Procedures

Students placed in denied status have the right to appeal. All appeals are reviewed by the Satisfactory Progress Committee. When reviewing appeals, the committee looks for mitigating circumstances (unusual or extraordinary circumstances beyond the student's control that the student could not have planned for).

## How to submit an appeal

To submit an appeal, follow these steps:

1. Print a copy of the Financial Aid Satisfactory Progress Appeal Form (2 pages) and the Academic Plan Summary for Financial Aid Appeal Form (1 page) from
www.mccneb.edu/fa/documents/financialaidappealinstructions.pdf.
2. Complete steps 1 through 4 on the appeal form as well as the academic plan summary. You may need to request assistance from an academic advisor or counselor if you are not able to complete the academic plan summary on your own.
3. Submit the completed appeal (appeal form, academic plan, written statement, supporting documentation) to any Financial Aid office.

## Review of appeals

The Financial Aid Satisfactory Progress Committee reviews appeals. Students are notified of the committee's decision on their appeal by official MCC email and in My Way.
When appeals are approved, students are reinstated for the quarter in which they are currently registered or the next available quarter if not currently registered for classes.
When appeals are denied or students decide not to appeal, students are responsible for payment of all educational costs, including tuition, fees, books, and supplies, for any quarters in which they are enrolled after receiving denied status from financial aid.

## Military/Veterans Services

The Military/Veterans Services office provides advisory services relating to educational benefits and periods of earned entitlement to VA-eligible students planning to enroll or already enrolled at MCC. Forms and applications needed by veterans eligible for educational benefits are available from the Military/Veterans Services office.

## Veterans' educational benefits

Due to the number of veteran educational programs, students should contact Military/Veterans Services for detailed information. In general, the following information applies:

- In order to receive benefits, entitled students must be in a specific program of study and be eligible to receive benefits only for the courses required in that program. Students are required to attend all classes for which they are registered and maintain satisfactory academic progress. Eligible veterans normally receive a monthly check that may vary in amount since it is determined by class load.
- If possible, new veteran students should apply for benefits 30-60 days prior to the start of the quarter they plan to attend; however, application can be made at any time during the quarter. Students who have attended othe institutions must request that official transcripts of credit earned at the institution(s) be sent directly to the Records office for evaluation of prior credit into their 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, which provides funds for part-time positions at various locations on campus serving veterans. Any questions should be directed to Military/Veterans Services.
Some restrictions apply to all VA educational programs. For more information, call Military/Veterans Services at 402-738-4619.

## Support services

Services are provided for current military service members, veterans, and their families as they pursue their academic, career, and personal goals by:

- providing military-specific academic advising and support services;
- easing the transition from military to college life;
- establishing connections to form a cooperative community of military/veteran students;
- enhancing MCC's awareness and appreciation of service members; and
- equipping military/veteran students with knowledge of College and community resources.
For more information, contact MCCVets@mccneb.edu.


## Tuition and Fees

## Classifications

Students are classified as residents or non-residents for the purpose of assessing tuition charges.

## Resident

Students qualify to register for resident tuition rates at MCC if they are not an international student with an F-1 student visa and meet one of the following criteria:

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


## Non-resident

Individuals who do not qualify for the resident tuition rates are considered nonresidents and their tuition is assessed according to the non-resident tuition schedule.

International students on F-1 visas are charged the non-resident tuition rate.

## High school CollegeNOW! tuition

Nebraska resident high school students enrolling in courses at MCC, including but not limited to MCC Career Academies, Dual Enrollment, CollegeNOW!, and Bridge to Success, receive the CollegeNOW! high school rate.

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

## Tuition for Credit Classes

## Residents

| Standard tuition | $\$ 53.00 /$ credit hr.* |
| :--- | :--- |
| CollegeNOW! high school students | $\$ 26.50 /$ credit hr. |
| People 62 years of age or older | $\$ 26.50 /$ credit hr. |

## Non-residents

| Standard tuition | $\$ 79.50 /$ credit hr. |
| :--- | :--- |
| People 62 years of age or older | $\$ 39.75 /$ credit hr. |

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

## Fees

| Facilities fee | \$5/credit <br> hour |
| :--- | :--- |
| International student health insurance (charged to all international <br> students) | Premium <br> varies by <br> age |
| Specialized course fees (e.g., student liability insurance, special <br> fee for tests required in class, lab supplies, etc.) | Fees vary <br> by course |
| Pass through fees on select courses paid to third party for <br> services provided (e.g., drug screening, background checks, third <br> party facility usage fee, etc.) | Varies by <br> services <br> provided |
| Student liability insurance program (Students enrolling in certain <br> health occupations and human services programs requiring <br> clinical practice, laboratory work, or experiences that place <br> students in the position of providing patient care must be covered <br> by a student liability insurance program. The specific policy is <br> determined by the College with the cost paid by students as part <br> of the fee assessed upon initial enrollment in the clinical, <br> laboratory, or patient care class.) | Varies by <br> policy <br> cost |

## Delinquent Accounts

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

## Tuition Payments

After registration, students are billed for their tuition a few weeks before the quarter starts. Tuition can be paid by credit card, check, cash, or deferred payment.

Credit card
Discover, MasterCard, Visa, and American Express credit card payments are accepted:

- in person at Student Services;
- via phone at 402-457-5231, 402-457-2405, or toll-free (800) 228-9553; or
- on MCC's website via My Services (student username and PIN are required for online payment).


## Check

Make checks payable to Metropolitan Community College and include a student ID number in the memo. Send to:
Metropolitan Community College
Attn: Student Accounts
P.O. Box 3777

Omaha, NE 68103-0777
Note: The canceled check is proof of payment.

## Cash

Cash is accepted in person at Student Services or the Business office, Fort Omaha Campus, Building 30. Do not send cash by mail. The receipt is proof of payment.

## Deferred payment (FACTS program)

MCC offers deferred payments through the FACTS program provided by a thirdparty agency that allows students to make payments on their tuition for the quarter. For more information, visit www.mccneb.edu/currentstudents/facts.asp.

## Schedule Changes

Changes in a student's schedule may have implications for the student's financial aid. Check with the Financial Aid office prior to any schedule changes.

## 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. Students may see their refund percentage through midnight of the same day by logging in to My Services and clicking on the tuition refund calculator.
Students who feel individual circumstances warrant exceptions from this policy may file a records action appeal. Instructions for this appeal are online at www.mccneb.edu/sos/records/raap.asp.
Students are responsible for dropping the course(s) if unable to attend. Nonattendance does not relieve students from the obligation to pay.

## STUDENT SERVICES

It is the role of Student Services to support the academic mission by providing a comprehensive range of services designed to facilitate student engagement with the College and success in the classroom.
These services include, but are not limited to, advising, counseling, services to students with disabilities, testing services, tutoring, career services, and military and veteran student services at all three campuses and four center locations. Libraries and Learning and Tutoring Centers are located at the South Omaha Campus, Fort Omaha Campus, and the Sarpy Center. The Elkhorn Valley Campus has a library located in the Academic Support Commons.

## Student Conduct

"The choices we make reflect who we are." College is a time for learning, inside and outside the classroom. MCC respects the rights of faculty to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede the learning process. Classroom behavior that seriously interferes with either the instructor's ability to conduct the class or the ability of other students to profit from the instructional program is not tolerated. Each member of the campus community-instructors, staff, and students-contributes to the climate of MCC's locations by:

- respecting fellow students, staff, and faculty;
- practicing honesty;
- being tolerant of differences; and
- demonstrating civility.

The Code of Conduct addresses two areas of behavior: academic and nonacademic. Contact the appropriate academic dean regarding questions about academic misconduct; contact the campus dean or executive director regarding questions about non-academic/behavior misconduct. Violations of the academic and non-academic behavior Code of Conduct produce consequences and may include sanctions.

## Academic Support

## Academic advising

Advisors assist students with developing an educational plan, promoting successful student practices, and providing general direction to support their academic and career goals. Advisors connect students to valuable resources and information about MCC's academic programs, services, policies, and procedures. Advisors also guide students through career exploration, utilizing interest and assessment tools.

## 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 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.

## Learning and Tutoring Centers

The College's Learning and Tutoring 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, computers, and specialized software. The Learning and Tutoring Centers are located at the Fort Omaha and South Omaha campuses and the Fremont Area and Sarpy centers; the Elkhorn Valley Campus provides these services at the Academic Support Commons. Services are provided free to currently enrolled students.

## 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. At the Elkhorn Valley Campus, library services are provided in the Academic Support Commons. Current students, faculty, and staff are also welcome to use the City of LaVista Public Library at the Sarpy Center.

Each campus library houses a collection of print and audiovisual materials, including books, journals, magazines, newspapers, and DVDs. The library's website includes links to more than 60 research databases containing eBooks, streaming videos, journals, magazines, newspapers, and encyclopedias. Offcampus access to the databases is available for current students, faculty, and staff.
Other resources available to students include:

- library orientation/instruction
- computers equipped with Internet access as well as Microsoft Office products (Word, Access, Excel, PowerPoint, and Publisher)
- interlibrary loan to obtain materials not available through MCC's libraries
- 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 services to the residents of the College's four-county service area (Dodge, Douglas, Sarpy, and Washington counties).
For more information about the library resources and services, including hours, locations, and policies, visit the library's website at www.mccneb.edu/library or call a library:
- Elkhorn Valley Campus, 402-289-1300
- Fort Omaha Campus, 402-457-2306
- South Omaha Campus, 402-738-4506


## Math Centers

MCC's Math Centers provide drop-in tutoring for all math courses. Additionally, students enrolled in MATH 0900, 0910, 0930, 0931, or 0960 may receive unlimited tutorial assistance in a group setting at the regularly-scheduled math study tables. Math study table locations and schedules can be found at www.mccneb.edu/tutoring.

## Tutoring

Free drop-in assistance in many academic subjects, including chemistry, accounting, and foreign language courses, is available at scheduled day, evening, and weekend hours in MCC's Learning and Tutoring Centers. MCC students enrolled in credit classes are encouraged to seek tutoring as often as desired in order to achieve their best possible academic performance. No appointments are necessary. Schedules of tutoring availability by subject are posted in the Learning and Tutoring Centers and at www.mccneb.edu/tutoring. Call tutor services at 402-457-2677 with any questions.

## 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 resource.mccneb.edu/writingcenter.

## 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 quarter. Hours, which vary during peak times, are prominently posted at each store.
For more information, call any bookstore:

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


## Temporary bookstore hours/options

Call for available dates and times.

- Applied Technology Center, 402-763-5800
- Fremont Area Center, 402-721-2507


## Campus Dining

Campus dining is available, while classes are in session, at the Fort Omaha Campus (Building 10), the Elkhorn Valley Campus, and the Sarpy Center. The South Omaha Campus offers daily vendors for peak-time dining options. Hours of operation and variety of beverages, snacks, sandwiches, and hot items may vary by location.
The Sage Student Bistro, located at the Fort Omaha Campus in the Institute for the Culinary Arts (Building 22), offers a teaching and learning experience for culinary arts students. Eat breakfast, lunch, or dinner Monday-Thursday when classes are in session. For more information, visit resource.mccneb.edu/bistro.

## Career Services

The mission of Career Services is to foster collaborative relationships with both internal and external partners, to facilitate the development of responsible career decision-making skills, and to provide comprehensive career development.

Students and MCC alumni are encouraged to utilize the services and resources of Career Services. Many resources and services are offered:

- Career services appointment (click the RSVP link)
- Student Quick Start guide
- Career assessment and exploration
- Employment opportunities
- NEworks workshops
- Job and internship search strategies
- Interview preparation
- Resume and cover letter (make an appointment with a Writing Center)
- Upcoming MCC Career Fairs


## Change of Address

Changes of address and telephone numbers can be updated online through My Services. Billing, refunds, and other information from MCC are mailed to the latest address on file.

## Learning Communities

Learning communities comprise a cohort - 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; and
- a better chance for academic success, which increases the likelihood of staying in college.
Current learning community opportunities include:


## AIM for Success

AIM (Academic Improvement) for Success is a learning community 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 contact Student Services.

## 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.

## Passport program

The Passport program is a learning community for students interested in starting their degrees at MCC and then transferring to four-year institutions. The learning communities consist of groups of up to 25 students who 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 ( 27.0 semester) credits that transfer to most four-year institutions.
An academic advisor is assigned to the Passport group to help ensure student success. For more information, visit www.mccneb.edu/passport.

## Teacher Preparation Connection

MCC offers a range of courses in early childhood education (ECED) and education (EDUC) that transfer to bachelor's degree programs at colleges and universities throughout the state.
Students planning to earn certification in early childhood education, elementary education, secondary education, or special education can complete up to 94.0 quarter hours ( 62.0 semester hours) at MCC. Most or all of those credits transfer to four-year programs.
The list of courses required by teacher certification programs varies, so it is recommended that a transfer institution and certification program be chosen prior to registering for EDUC courses.
Due to special qualifications, prerequisites and grade requirements for acceptance into bachelor's degree education programs, some EDUC courses require an application and acceptance procedure. Additional information can be found at www.mccneb.edu/teacherpreparation.

## TRiO

The TRiO/Student Support Services (SSS) program furthers the MCC mission of educational excellence and equal access by providing first-generation college students with limited income and/or disabilities and homeless students a multiplicity of academic and personal support services: study skills development to achieve academic success, tutoring and supplemental instruction to master course content, and intensive academic and personal advisement to build confidence and promote student success. SSS also provides mentors and a summer bridge program to first-year students, financial literacy education, and scholarship and grant opportunities. These interconnected services increase persistence and encouragement for a seamless transition. TRiO/SSS also includes the Single Parent/Displaced Homemaker program serving single parents or pregnant students as they strive to meet their educational goals. Students must apply for program services; space is limited.

## Single Parent/Displaced Homemaker Program

The Single Parent/Displaced Homemaker program provides a wide range of workshops and personal assistance to single parents, single pregnant women, displaced homemakers, and TRiO/SSS students. Referral to other College offices and relevant outside community agencies is also available.

## Police/Public Safety Department

The primary objective of the Police/Public Safety Department 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 state and local laws, enforcement of campus rules and regulations, and various other services. Some of these services include:

- patrolling and providing police and security services and assistance on MCC 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; and
- providing escorts for staff, students, and visitors as requested.

To reach the Police/Public Safety Department, call 402-457-2222.

## Annual Security and Fire Safety report

The MCC Police/Public Safety Department prepares the Annual Security and Fire Safety 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 reporting sexual assault and other matters. The full text of the report can be found online at www.mccneb.edu/police/pdf/ASFR2013.pdf.

## Sexual assault prevention and awareness information

Public Safety encourages all staff and students to review the information regarding rape prevention and awareness at the following website: www.mccneb.edu/sharp.pdf. This information contains tips for rape prevention statistics, and existing organizations outside of MCC for rape counseling options There is also additional information regarding sexual assault awareness on the Police/Public Safety resource page that can be found by clicking on the Sexual Assault Awareness tab at www.mccneb.edu/police.

## Parking and traffic

All motor vehicles used by students and staff should be registered with the College. Each campus has parking lots and traffic signs that are prominently displayed. Parking is not reserved and is available on a first-come, first-served basis. 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.

## 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. The college has a dedicated Academic Data Center where students experience the operation and use of the newest technologies in IT. MCC information technology students are being introduced to and utilize virtualization technology, cloud computing, and data center management. MCC information technology is also giving students experience in using mobile devices and developing mobile applications. Students have access to information technology resources via the Internet and on all campuses.
The Visual Arts lab at the Elkhorn Valley Campus houses state-of-the-art hardware and software in support of the College's visual arts programs. The lab has the latest versions of the Adobe design software such as Photoshop, Illustrator, InDesign, Flash, and Dreamweaver to support the Design, Interactivity, and Media Arts program. In addition, students can use other Adobe products in the Photography program as well as the Video/Audio Communication program, such as Lightroom, Premiere, and After Effects. Students pursuing tracks in game design or 3D animation use Autodesk products, such as Mudbox and Maya.

## Student Identification Cards

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

## MCC LEARNING INITIATIVES

## Distance Education

## Online courses

Online courses make it as easy as possible for students to balance commitments of schedules and studies by allowing the classroom to come to them wherever they are. Apart from textbooks, everything they need is accessible via the Internet using a standard Web browser. Each week the student logs on to Blackboard Learn to access the online course(s) in which they are enrolled. 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 provides information, guides students, prompts discussion, helps with assignments, answers questions, and grades work.
Students who are not F-1 students and whose primary language is not English need to take the ESL COMPASS to determine course placement. Call 402-4572400 to get started. The TOEFL is not required. There are federal regulations specific to F-1 students and online classes. Contact International Student Services at 402-457-2281 or iss@mccneb.edu for guidelines.

## Hybrid courses

A hybrid course is a coordinated approach to learning, using both online technology and classroom interaction with faculty and peers. MCC hybrid courses meet face-to-face 50 percent of the traditional quarter's campus meetings; the other 50 percent of campus meeting time is replaced with online study and learning activities. Depending on the credit hours, for example, instead of meeting on campus twice per week, students are scheduled to come to class once a week. The remainder of the week is spent completing readings and online assignments.
Hybrid classes provide students unique benefits, including:

- More flexibility to choose classes and arrange study time according to students' individual schedules
- Engaging classroom time, including focused discussions and applications of course material with faculty and peers
- Deeper understanding of the subject matter through analytical online assignments and classroom lectures and activities targeted to students' needs


## Support services

Students may use the College computers in the Learning and Tutoring Centers, computer labs, Enrollment Centers, or libraries. One-on-one assistance is available in the Learning and Tutoring Centers for students 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 60 online research databases.

## Campus Share (course conferencing)

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

## ACADEMIC POLICIES AND PROCEDURES

## 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 degree, associate in science in nursing, certificate of achievement, or career certificate.
Many degree programs offer various options or tracks that are areas of interest within the program of study. Although students may successfully complete a single or multiple options/tracks within the program, only the degree for the overall program of study is awarded. Students are not eligible to receive multiple degrees for completing more than one of the options/tracks within the overall program of study.

## 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 96.0 quarter hours and a maximum of 110.0 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 transfer agreements.

## Associate in arts degree (AA)

The associate in arts degree is awarded to students completing the requirements of the Liberal Arts/Academic Transfer programs. 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 students 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 students completing the program requirements of the associate degree nursing program with a minimum of 108.0 credit hours and a maximum of 110.0 credit hours unless noted for accreditation purposes. Graduates awarded this degree are 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 students upon successful completion of the requirements of one of the career programs with a minimum of 48.0 quarter hours and a maximum of 55.0 quarter hours.

## Career certificate

A career certificate represents 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 quarter of study; in other cases, two or three quarters may be needed because of course prerequisites or other factors.

## Credit by Testing and Experience

MCC may grant academic credit for the following:

## Credit for course proficiency exams

Students wishing to demonstrate course proficiency may challenge selected credit courses by taking a proficiency examination. Students must be in good standing, be currently enrolled at MCC, not be 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. Students should contact Student Services for information and application procedures. Credit granted may apply toward the student's current listed major only. Credit granted might not transfer to other institutions.

## Credit for high school opportunities

Credit for AP program
MCC may award college credit in fulfillment of program requirements when students have acceptable Advanced Placement exam scores. For consideration of college credit, students need to have official exam score reports mailed to:
Metropolitan Community College
Attn: Records
P.O. Box 3777

Omaha, NE 68103-0777

## Credit for knowledge acquired through work experience

Credit may be granted for learning acquired through work experience that parallels a student's program at MCC. Credit is not granted for courses in which a course proficiency test is available. Students should contact Student Services for information. A fee is charged.

## Credit for military service

MCC seeks to grant the most credit possible for military training and experience. Military students who submit a DD-214 will be granted up to 3.5 credits in Physical Education (PHED) for basic training. Additional credit hours may be awarded for military training and experience as recommended by the American Council on Education.
Some factors may limit the number of credits accepted, including departmental accreditation and program-specific requirements. Credits not transferred as a specific class at MCC may be applied to either the major or general education requirements as undefined electives. Credits granted do not apply toward fulfillment of MCC's residency requirement for graduation (24.0 hours). Military students pursuing specialized programs that have very few or no electives may find that they receive limited credits from their military experience.
Documents eligible for transcript evaluation can include DD-214, DD-295, DD2586, CCAF Transcript (Community College of the Air Force), SMART (Sailor/Marine ACE Registry Transcript), AARTS (Army/ACE Registry Transcript), CGI (Coast Guard Institute Transcript), and other official documents indicating military experience. In addition, MCC accepts DSST (DANTES) and CLEP scores.
Use of military credits to transfer from MCC to another institution depends on a number of factors, including whether the institution has a transfer credit agreement with MCC. The institution receiving transfer courses makes the decision regarding award of transfer credit. Military students should evaluate their transfer options carefully in consultation with the receiving institution. For additional information on military transfer credits, see a military adviser.

## Credit for national standardized test results

Defense Activity for Non-Traditional Education Support (DANTES)
MCC may award specific course credit for subject examinations in fulfillment of current program requirements. For consideration of college credit, students need to have an official national exam score report mailed to:
Metropolitan Community College
Attn: Records
P.O. Box 3777

Omaha, NE 68103-0777
The following limitations exist for credits awarded by testing and experience:

- Credit granted does not apply toward fulfillment of MCC's residency requirement for graduation.
- Credit for documented work experience is only available for classes listed in the current College catalog.
- Work experience credit is not available for any course for which a proficiency exam exists.
- Credit earned through documented work experience or course proficiency examinations are generally not transferable to another institution on a course-by-course basis.
Students with questions regarding awarding credit via an alternative to attending classes should contact an advisor at 402-457-2400.


## Credit for Students with Earned Undergraduate or Graduate Degrees

MCC credit is automatically awarded for some general education courses to students who have an official transcript on file in the Records office, noting conferred bachelors, masters, or doctoral degrees from an accredited American institution. A student must have declared a major as well as actively seek a certificate or/and degree.

- ENGL 1010 and ENGL 1020 credit is awarded for associate degree programs
- HMRL 1010 (Human Relations Skills)

Note: Credit is not automatically awarded for math, social science, or information systems and literacy general education requirements.

## Dean's List

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

- complete a minimum of 12.0 credit hours in graded 1000 -level or above classes;
- complete at least 6.0 credit hours in graded 1000-level or above classes for the quarter in which they are qualifying; and
- achieve at least a 3.50 GPA for the quarter in which they are qualifying

Students receive email notification via their student email account from the vice president for academic affairs approximately three weeks after the qualifying quarter has ended. This email includes a memo and certificate that are suitable for printing and framing. Since student email accounts may be purged at the end of the quarter, students should save or back-up their Dean's List email if they wish to keep it. Dean's List certificates are not archived or available for reissuance. Students' names are publicized on the MCC website and sent to select newspapers.

## 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: The student stops attending a class or participating in an online class, does not return, and fails. (0 points per credit in computation of grade point average). The FX grade was discontinued after the 13/SP quarter.
- I - Incomplete: Due to extenuating circumstances, students may be given an extension of time to complete course objectives. Assignment of I grades is a faculty prerogative and is issued when students who have completed the majority of the course requirements are unable to complete the remainder due to unusual or extenuating circumstances. An I grade must be made up approximately three weeks prior to the end of the next quarter or it becomes an F . (Does not count in computation of grade point average)
- $\quad \mathbf{P}$ - Pass: P is an indication that the student has completed the coursework satisfactorily. It is used for developmental courses and other courses at the discretion of the College. (Does not count in the computation of grade point average)
- $\quad \mathbf{R}$ - Re-enroll: The student has made satisfactory progress and should reenroll until course objectives are completed. R 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. Audit requests may only be submitted during the first week of class and are processed during the second week. An audit is not an option for online classes.
- W - Withdrawal: $W$ 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 drop via My Services or call Registration to officially withdraw. W's may not be changed to a grade. (Does not count in the computation of grade point average)
- WX - Administrative withdrawal: The student registers but never attends the class or engages in a class activity by the date specified in the class syllabus. Administrative withdrawal/disenrollment of a student is based upon the instructor's report via the MCC Student Participation Roster, completed on or before the census date, the 10th day of an academic quarter.
- Z - Unreported grade: $\mathbf{Z}$ indicates that a grade has not been reported by the faculty member. (Does not count in computation of grade point average)


## Grade point average

Students' GPA's are determined by dividing the total number of grade points earned by the total number of credits attempted in those courses that count toward students' GPA.
To calculate a GPA:

| grade value $\times$ credit hours completed $=$ grade points |  |
| :--- | :--- |
| A | $4 \times 4.5=18$ |
| B | $3 \times 4.5=13.5$ |
| C | $2 \times 4.5=9$ |
| D | $1 \times 4.5=4.5$ |
| F | $0 \times 4.5=0$ |

## Example

| Course | Grade | Hours completed | Grade points |
| :--- | :--- | :--- | :--- |
| ENGL 1010 | A | 4.5 | 18 |
| BSAD 1000 | C | 4.5 | 9 |
| INFO 1001 | F | 4.5 | 0 |
| ACCT 1050 | 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, W, V, and Z do not apply toward the GPA but do appear in attempted hours.

## Auditing a course

Students who wish to attend a course without taking examinations or receiving credit for a course may request to audit the course. Students intending to audit should not register for the course as they cannot already be enrolled in a class they wish to audit. Instead, they must request an audit from the instructor during the first week of class only. Students who audit a class pay the regular tuition rate and fees. Audited courses do not count toward graduation requirements nor do they satisfy prerequisite requirements for other courses. However, audited courses do appear on the transcript with the legend of V .
Courses that are eligible for audit are determined by the appropriate academic dean; some courses may not be available for audit. Online courses may not be audited. An audit student may not change from audit to credit status once the course has started.

Audited courses are not considered when establishing the full- or part-time status of a student receiving financial aid or veteran's benefits.

## Repeating a course

Students may repeat a course in which they did not receive at least a C grade. Both grades remain on the permanent record; the latest grade is used to compute the GPA. Courses may not be repeated for credit if the final grade was a C or better unless approved through the academic dean.

Final grades for repeated courses for those graduating must first be verified by the Records office in order for those students to be considered for graduation requirements.

## Appeals of final course grades

Students who wish to appeal a final course grade need to follow the appeal procedure listed below. The appeal process for final course grades must be initiated no later than the end of the quarter (the 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). Upon receipt of the instructor's response, the student may appeal, if necessary, in writing to the next level, the appropriate academic dean (second level of appeal). Upon receipt of the academic dean's response, the student may appeal, if necessary, to the final level, the vice president for academic affairs, for a final decision.
The procedure for a final course grade appeal at MCC requires that the student and instructor first have a conversation with the expectation of resolving the grading issue between them. The question is mainly whether or not the instructor's syllabus has been followed.
If, after that conversation, there is still disagreement about whether or not the instructor has adhered to the syllabus in dealing with the student's final grade issue, the student may put his or her concern officially in writing to the instructor.
The purpose of that appeal letter (or email) is to seek resolution between student and instructor, pointing specifically to the syllabus and how the student can show that the procedures set up in the syllabus were not upheld.
The instructor's written reply to this letter usually suffices to resolve the issue.
A grade appeal makes it to the level of the academic dean only in the rare cases when a written appeal to the instructor is unsuccessful.
The purpose of the written appeal to the academic dean is to show how the student was not dealt with in accordance with procedures set up in the instructor's syllabus and how the instructor erred in his or her response to the student's written appeal. When a written appeal is submitted to an academic dean, the student must attach the syllabus for the course, the student's written appeal to the instructor, and the instructor's written reply.
A grade appeal makes it to the level of the vice president for academic affairs in the unlikely event that an appeal was not resolved at the first level (instructor) or the second level (academic dean). The student must submit a written appeal that shows how the student was not dealt with in accordance to the procedures set up in the instructor's syllabus and, specifically, where the instructor and the academic dean erred in their respective responses. When a written appeal is submitted to the vice president for academic affairs, the student must attach the syllabus for the course, the student's written appeals to both the instructor and the academic dean, and the respective responses from the instructor and the academic dean.
Final course grade appeal decisions made by the vice president for academic affairs are final and not subject to further appeal.

## Academic amnesty

Students who wish to petition for academic amnesty (elimination of a course(s) from a previous quarter), must meet the below provisions. The amnesty process begins when a student meets with an academic advisor to complete the petition. The petition requests the elimination of up to two quarters of students' classes from the computation of their GPA.

- Academic amnesty can be granted only one time and is not reversible.
- Students must have successfully completed a minimum of 24.0 credit hours at 1000- or 2000-level MCC classes with a minimum GPA of 2.50 after the most recent quarter being petitioned for amnesty.
- Academic amnesty is applied to D and F grades only, which are eliminated from GPA calculation and hours attempted. Courses in which students received an $\mathrm{A}, \mathrm{B}$, or C grade continue to be included in students' overall GPAs and are exempt from academic amnesty.
- Students' permanent records (transcripts) reflect the original grade(s) received. Original grades are marked with a pound sign (\#) on students' transcripts but are not included in the GPA calculation.
NOTE: Academic amnesty has no bearing on financial aid eligibility, as all quarters, including those for which academic amnesty is granted, must be considered.


## Graduation Guidelines

## Program requirements

The program requirements that students must meet to graduate with a certain degree or certificate are stipulated in the College catalog at mccneb.smartcataloglQ.com. Catalog effective dates begin with the start of Fall quarter and run through the end of the next Summer quarter. Specifically:

- The effective catalog year for students is determined by the quarter in which they first attend MCC, not the date of their enrollment or registration.
- Students are held to the requirements in the catalog year in which they first attend unless they opt to meet the requirements in a later catalog in a year in which they attend.
- All requirements must be completed within four years of the initial or chosen catalog year. Those not completing within four years must select a later catalog in a year in which they attended and meet the requirements listed in that catalog.
Final grades for those graduating must be verified in the system to be considered for graduation requirements. Students who are retaking courses that they are using to complete their program of study requirements must receive a final grade in those courses before they may be considered as having fulfilled graduation requirements. Students cannot be processed through the system until this occurs.
To graduate with honors, students must earn a cumulative GPA of 3.50 or above in their program of study.


## Eligibility

Students who wish to graduate with the following degrees or certificates must meet the following eligibility requirements:

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

To apply and be eligible for graduation with an associate degree, students must have:

- earned a GPA of at least 2.00 in all studies that are applicable toward graduation from a program of study and be in good academic standing;
- successfully completed all program requirements encompassing a minimum of 96.0 credit hours as outlined in the College catalog; program requirements include successful completion of a minimum of 24.0 credit hours in residence at MCC or enrollment in an approved statewide initiative program with MCC designated as the home institution;
- resolved all College financial obligations and returned all library and College materials; and
- completed an online graduation application form in the My Services student portal and submitted it by the deadline date.


## Certificates of Achievement

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

- earned a GPA of at least 2.0 in all studies attempted and applicable toward graduation from a program of study and be in good academic standing;
- successfully completed all course requirements of a program of study encompassing a minimum of 48.0 credit hours as outlined in the College catalog with a minimum of 15.0 credit hours in residence at MCC;
- resolved all College financial obligations and returned all library and College materials; and
- completed an online graduation application form in the My Services student portal and submitted it to the Records office.


## Career Certificates

Designed for the person seeking job-relevant career development, career certificate modules represent a structured sequence of courses that may be completed in a relatively short period. Career certificates range from a minimum of 24.0 quarter hours to a maximum of 36.0 quarter hours.

At least two-thirds of the credits leading to the Career Certificate must be completed at MCC, and a grade of C or better in all courses is required as well as to be in good academic standing.

## Graduation application

All students must submit a graduation application to receive a degree or certificate. A separate application must be submitted for each degree or certificate that a student anticipates receiving.

The application for graduation can be found on the My Services student portal under Academic Profile and must be submitted online. 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
At MCC, degrees and certificates are awarded at the end of each quarter and denote the completion of a program of study. Degrees and certificates are mailed approximately four to six weeks after the end of each quarter to qualifying students.
The MCC Commencement Ceremony is held annually to recognize students who have graduated or will graduate during the current academic year (Summer, Fall, Winter, and Spring quarters).
Career certificate recipients are not eligible to participate in the annual Commencement Ceremony.

## Standards of Academic Progress

## Academic standards and alert system

To encourage satisfactory progress throughout quarters of enrollment, the College's academic progress policy establishes specific standards that must be met by all students enrolled in credit courses at MCC. If students are not making academic progress, the College may limit enrollment and course selection, if considered necessary. If students are on probation after an academic suspension or dismissal, the College may establish other special conditions under which the students may again enroll, including regular meetings with academic counselors and advisors, enrollment in developmental courses, participation in career development activities, and completion of assessment tests.
Note: Students receiving financial aid must also comply with the Financial Aid Satisfactory Progress Statuses (p. 14).

## Minimum requirements for good academic standing

| Attempted graded courses 1000-level and above <br> (credit hours) | Minimum <br> cumulative GPA |
| :--- | :--- |
| $1.0-29.5$ | 1.50 |
| $30.0-79.5$ | 1.75 |
| $80.0+$ | 2.00 |

Academic good standing: meeting minimum GPA for credit hours completed. Intervention: None
Academic probation: not meeting minimum GPA for credit hours completed. Intervention: Registration holds are placed on students' records. Students on probation must complete an online probation workshop prior to future registration. Students on probation for more than one quarter are required to meet with an academic advisor or counselor for registration. While on probation, students may have limits placed on the number of credit hours of enrollment and/or course selection.
Academic suspension: students on probation who do not earn a GPA of at least 2.00 in their next quarter of enrollment (graded courses 1000-level and above). Intervention: Students are placed on academic suspension. Students on academic suspension are denied enrollment for a period of one quarter and must apply for readmission and observation status.
Academic observation: status when students return after suspension or dismissal. Intervention: Registration holds are placed on students' records. Students desiring to enroll after suspension or dismissal are required to meet with an academic counselor and request re-admission. If the request is granted, the academic counselor places the student in academic observation status. The academic counselor, in consultation with the director or dean, is authorized to impose reasonable restrictions on students' subsequent enrollment.
If students earn less than a 2.00 GPA for credits completed while in academic observation status (graded courses 1000-level and above), they are placed on academic dismissal.

Academic dismissal: Dismissal may be permanent. The College reserves the right to deny enrollment to students on academic dismissal. Intervention: Registration holds are placed on students' records. Students on academic dismissal are not allowed to register or attend credit classes for one year. After an absence of one year, students on dismissal may petition for re-admission through an academic counselor.

## Transfer Agreements

MCC works closely with many four-year institutions to develop agreements that assure smooth transfer of courses and degrees. There are four types of these articulation agreements:

## 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 schools' general education requirements. Some institutions have an institutionwide 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 students 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 toward a four-year degree.

## Program-Based Transfer Guides

Program-Based Transfer Guides list the courses that satisfy admission requirements to specialized programs such as health or engineering. These guides 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.edularticulation for specific transfer agreement information.

## Transcripts

## Transcript changes

Any students who believe there is an inaccuracy on their transcript must contact the Records office. The transcript is the final, accurate record of academic accomplishment.

## Transcript retention

The official academic records (transcripts) for all MCC students are permanently retained by the College. Student financial aid records are retained for three years plus the current year.

## Transcript requests

Transcript requests may be requested through My Way or online at www.mccneb.edu/academics/transcripts.asp. Students have the option of requesting an electronic transcript or a paper transcript. Students receive email updates regarding the status of their order and have the ability to track their request history online; however, the type of information varies depending on whether a paper or e-transcript is requested.
There is a fee charged for transcripts. The current fee schedule and payment procedure can be found at www.mccneb.edu/academics/transcripts.asp.

## Electronic transcripts

Electronic transcripts (e-transcripts) are official transcripts that are submitted to a third party through a secured process. Each transcript is validated through a digital and certified signature by MCC. All e-transcripts are identical to a paper transcript; the only difference is the delivery method. The recipient's email address is required to utilize this service. Students should make sure that the correct email address is obtained and verified with the recipient prior to submitting a request.
E-transcripts are processed within one to two business days (Monday-Friday; excluding days when the College is closed), provided there are no holds on the student's account. Students may submit an e-transcript request 24/7, but transcripts are not processed until the next business day. Additional processing time may be required after the end of the quarter.
Additional documents may be attached to the request to be sent along with the etranscript.
Students who need a copy of their Omaha Tech transcripts cannot utilize this service, as only paper transcripts are available.

## Paper transcripts

Paper transcripts are official transcripts that are printed on security paper. The recipient's postal address is required to utilize this service.
Paper transcripts are processed within five to seven business days; allow additional processing time during high volume periods (end/start of term, graduation, etc.).

Additional documents may be attached to the request to be sent along with the paper transcript.
Note: Students who are no longer enrolled at MCC still have access to their network login and password; however, they MUST maintain the password requirements (changing it periodically). For username or password assistance, students should contact the Help Desk at 402-457-2900. Students who were enrolled prior to 2001 do not have access to their MCC network login and password.
For additional information, contact the Records office at 402-457-2353.
In compliance with the U.S. Department of Education's policy aimed at reducing the student loan default rate, current or former students who are in default on their student loans are not entitled to official transcripts of grades or course completions.

## End of quarter grades

Even if grades have been posted by an instructor, transcripts cannot be released until grade processing has been completed, which can take up to three days. As stated, additional processing time may be added to the five to seven business day time frame.

## GENERAL EDUCATION

## 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 - Effective communicators express thoughts, ideas, and feelings in both written and oral modes in order to be successful in their education and professional careers. 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. Effective communicators:
- engage in the four stages of the communication process: collecting, shaping, drafting, and revising;
- select, organize, and present details to support a main idea;
- participate in groups using a variety of collaborative techniques;
- use knowledge of target audience expectations and values to shape a text;
- use various techniques in writing and speaking, including authority, point-of-view, style, and voice; and
- employ 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. Critical thinkers:
- interpret and evaluate statements, theories, problems, and observations from different points of view or perspectives;
- question the validity of assumptions, evidence, and data;
- assess the value or importance of positions, policies, and formulated solutions; and
- employ 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. Information literate learners:
- determine the extent of information needed;
- critically evaluate information and its sources;
- incorporate selected information into a personal knowledge base;
- use information ethically and legally; and
- utilize 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. Numerically literate individuals:
- interpret, analyze, and solve basic numerical problems;
- estimate the reasonableness of an answer; and
- interpret, evaluate, and present 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. Scientific inquirers:
- apply the scientific inquiry process to a situation;
- communicate the importance of science in daily life;
- evaluate societal issues from a scientific perspective; and
- make informed judgments about science-related topics and/or policies.
- Social and cultural awareness - Social and cultural awareness provide the basis to understand how each person shapes, and is shaped by, culture and society as well as to recognize and understand the obligation to engage in ethical, safe, and legal behaviors. Socially and culturally aware individuals:
- appreciate the influence of history, geography, the arts, humanities, and the environment on individual cultural development;
- distinguish subjective opinions and ideology from objective findings and data;
- recognize social and individual biases;
- develop personal and social responsibility and participate as an engaged citizen; and
- recognize individual differences, value diversity, and display 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 who completes a degree or certificate of achievement program at MCC. In most programs, general education requirements are already determined; in programs where specific courses are not outlined, students should use the list of approved general education courses to complete minimum requirements for general education.


## General Education Minimum Requirements

| General education <br> course areas | Competencies covered in <br> course area | Minimum <br> number of <br> credit thours <br> required |
| :--- | :--- | :--- |
| Communications | communication, critical <br> thinking, social and cultural <br> awareness | 9.0 credit hrs. |
| Humanities/social <br> sciences | scientific inquiry, social and <br> cultural awareness, critical <br> thinking | 4.5 credit hrs. |
| Quantitative/numeracy <br> skills | numeracy, critical thinking | 4.5 credit hrs. |
| Human relations skills | social and cultural <br> awareness, scientific <br> inquiry, critical thinking | 4.5 credit hrs. |
| Information systems <br> and literacy | information literacy | 4.5 credit hrs. |
| Science | scientific inquiry | Variable <br> depending on <br> program of <br> study |

## General Education Requirements

## Associate in applied science degrees:

| Communications | 9.0 credit hrs. |
| :--- | :--- |
| Humanities/social sciences | 4.5 credit hrs. |
| Quantitative/numeracy skills | 4.5 credit hrs. |
| Other | $\underline{9.0 \text { credit hrs. }}$ |
|  | 27.0 credit hrs. |

## Associate in science degrees:

| Communications | 13.5 credit hrs. |
| :--- | :--- |
| Quantitative/numeracy skills | 4.5 credit hrs. |
| Other | $\underline{9.0 \text { credit hrs. }}$ |
|  | 27.0 credit hrs. |

## Associate in arts degrees:

| Communications | 13.5 credit hrs. |
| :--- | :--- |
| Quantitative/numeracy skills | 4.5 credit hrs. |
| Other | $\underline{9.0 \text { credit hrs. }}$ |
|  | 27.0 credit hrs. |

## Certificates of achievement:

| Communications | 4.5 credit hrs. |
| :--- | :--- |
| Humanities/social sciences | 4.5 credit hrs. |
| Quantitative/numeracy skills | $\underline{4.5 \text { credit hrs. }}$ |
|  | 13.5 credit hrs. |

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

## General Education Course Options

Select a General Education area below for appropriate course options. NOTE: Students who plan to transfer credits should select from the Transfer course options (p. 150) rather than the General Education course options listed here.

## Communications

English
Level 1
ENGL $1010 \quad$ English Composition IFB $\square .5$
ENGL $1210 \quad$ Applied Communications 4.5
ENGL 1220 Technical Writing $\begin{array}{ll}\text { Be } & 4.5\end{array}$
ENGL $1230 \quad$ Business Writing ${ }^{\text {B }} \quad 4.5$
Level II
ENGL $1020 \quad$ English Composition II今 4.5
ENGL $1240 \quad$ Oral and Written Reports $\checkmark$ ® $\quad 4.5$

## Humanities/Social Sciences

## Humanities

Architectural Drafting

| ARCH 1000 | Appreciation of Architecture | 4.5 |
| :--- | :--- | :--- |
| Art |  |  |
| ARTS 1000 | Introduction to the Visual Arts® | 4.5 |
| ARTS 1010 | Elementary Drawing | 4.5 |


|  |  |  | Theatre |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ARTS 1020 | 2-D Design | 4.5 | THEA 1000 | Introduction to the Theatre $\checkmark^{8}$ | 4.5 |
| ARTS 1030 | 3-D Design | 4.5 | THEA 2010 | Script Analysis | 4.5 |
| ARTS 1040 | New Media Design | 4.5 | THEA 2020 | Fundamentals of Acting I | 4.5 |
| ARTS 1110 | Art History-Ancient to Gothic-® | 4.5 | THEA 2021 | Fundamentals of Acting II | 4.5 |
| ARTS 1120 | Art History-Renaissance to Modern-® | 4.5 | THEA 2040 | Movement for the Actor | 4.5 |
| Chinese |  |  | THEA 2050 | Voice for the Actor | 4.5 |
| CHIN 1110 | Beginning Chinese 1 | 7.5 | THEA 2110 | Theatre History $1 \cdot 0$ | 4.5 |
| Design, Interactivity, and Media Arts |  |  | Social Sciences |  |  |
| DIMA 1411 | History of Animation | 4.5 |  |  |  |
| English |  |  | Economics | Macroeconomics ${ }^{\text {® }}$ | 4.5 |
| ENGL 1310 | Creative Writing | 4.5 | ECON 1100 | Microeconomics* | 4.5 |
| ENGL 2450 | Introduction to Literature-* | 4.5 | Geography |  |  |
| ENGL 2460 | Introduction to Short Stories | 4.5 4.5 | GEOG 1010 | Fundamentals of Geography* | 4.5 |
| ENGL 2480 | Introduction to Drama Literature I | 4.5 | GEOG 1020 | World Regional Geography* | 4.5 |
| ENGL 2481 | Introduction to Drama Literature II | 4.5 | GEOG 1050 | Introduction to Human Geography* | 4.5 |
| ENGL 2490 | Introduction to Latin American Literature | 4.5 | History |  |  |
| ENGL 2510 | American Literature ISo | 4.5 | HIST 1010 | United States History to 1877 ${ }^{\text {® }}$ | 4.5 |
| ENGL 2520 | American Literature II | 4.5 | HIST 1020 | U.S. History from 1865 to Present - © | 4.5 |
| ENGL 2900 | Special Topics in Literature | 4.5 | HIST 1050 | Introduction to Black History ${ }^{\text {B }}$ | 4.5 |
| French |  |  | HIST 1060 | The History of Black Women in America | 4.5 |
| FREN 1010 | Beginning French FB | 7.5 | HIST 1070 | Traditional and Modern China-8 | 4.5 |
|  |  |  | HIST 1080 | Traditional and Modern Japan* | 4.5 |
| GERM 1010 | Elementary German I-B | 7.5 | HIST 1110 | World Civilization from Prehistory to 1500-3 | 4.5 |
| Humanities |  |  | HIST 1120 | World Civilization from 1500 to Present $\smile$ © | 4.5 |
| HUMS 1000 | Humanities through the Arts© | 4.5 | HIST 2200 | Latin American History |  |
| HUMS 1100 | Classical Humanities* | 4.5 | HIST 2220 | U.S. and Global Military History ${ }^{\text {® }}$ | 4.5 |
| HUMS 1110 | Origins of the Humanities ${ }^{-1}$ | 4.5 | Political Science |  |  |
| HUMS 1120 | The Humanities in the Medieval Renaissance World ${ }^{-3}$ | 4.5 | POLS 2050 | American National Government* | 4.5 |
| HUMS 1130 | The Humanities in the Modern World $\begin{aligned} \\ \\ \text { d }\end{aligned}$ | 4.5 | POLS 2060 | The Constitution- ${ }^{\text {P }}$ | 4.5 |
| HUMS 1150 | The Humanities in the Non-Western World $-\hat{\beta}$ | 4.5 | POLS 2070 | Contemporary Social and Political Issues® | 4.5 |
| HUMS 2310 | Film History and Appreciation* | 4.5 | Psychology |  |  |
| Japanese JAPN 1010 Beginning Japanese I |  | 7.5 | PSYC 1000 | Psychology for Everyday Living | 4.5 |
|  |  | PSYC 1010 | Introduction to Psychology ${ }^{-}$© | 4.5 |
| Music |  |  | PSYC 1110 | Parenting and Family Problem Solving | 4.5 |
| MUSC 1010 | Introduction to Music I |  | 4.5 | PSYC 1120 | Human Growth and Development-\% | 4.5 |
| MUSC 1020 | Introduction to Music II | 4.5 | PSYC 1130 | Cognitive Development-® | 4.5 |
| MUSC 1050 | Music Appreciation ${ }^{\text {O }}$ | 4.5 | PSYC 2140 | Behavior Modification and Principles of Learning ${ }^{3}$ | 4.5 |
| MUSC 1110 | Music Fundamentals I | 4.5 | PSYC 2150 | Survey of Human Sexuality ${ }^{\text {® }}$ | 4.5 |
| MUSC 1120 | Music Fundamentals II | 4.5 | PSYC 2350 | Fundamentals of Abnormal Psychology-3 | 4.5 |
| Philosophy |  |  | PSYC 2450 | Social Psychology ${ }^{\text {B }}$ | 4.5 |
| PHIL 1010 | Introduction to Philosophy* | 4.5 | PSYC 2550 | Popular Readings in Social Science $\mathcal{V}^{\text {B }}$ | 4.5 |
| PHIL 1030 | Professional Ethics ${ }^{\bullet}$ | 4.5 | PSYC 2650 | Research Methods ${ }^{\text {® }}$ | 4.5 |
| PHIL 1100 | Critical Reasoning ${ }^{\text {B }}$ | 4.5 | Social Work |  |  |
| PHIL 2030 | Introduction to Ethics-8 | 4.5 | SOWK 1010 | Introduction to Social Work-® | 4.5 |
| PHIL 2200 | Introduction to Comparative Religion $\underbrace{3}$ | 4.5 | Sociology |  |  |
| PHIL 2400 | Philosophy and Literature | 4.5 |  |  | 4.5 |
| PHIL 2600 | Contemporary Issues in Philosophy | 4.5 | SOCI 1050 | Sociology of Healthcare $\checkmark$ | 4.5 4.5 |
| Photography |  |  | SOCI 1100 | Native American Studies®* | 4.5 |
| PHOT 1005 | Basic Photography I- Digital | 6.0 | SOCI 1250 | Introduction to Anthropology ** | 4.5 |
| Sign Language |  |  | SOCI 2050 | Current Social Problems ${ }^{\text {® }}$ | 4.5 |
| SLIS 1010 | American Sign Language I | 6.0 | SOCI 2060 | Multicultural Issues ${ }^{\text {® }}$ | 4.5 |
| Spanish |  |  | SOCI 2110 | Introduction to Gerontologyve | 4.5 |
| SPAN 1110 | Elementary Spanish 1- | 7.5 | SOCI 2150 | Survey of Human Sexuality* | 4.5 |
| Speech |  |  | SOCI 2160 | Marital and Family Relationships ${ }^{\text {¢ }}$ | 4.5 |
| SPCH 1110 | Public Speaking ${ }^{\text {® © }}$ | 4.5 | SOCI 2310 | Criminology ${ }^{\text {® }}$ | 4.5 |
| SPCH 1120 | Argumentation and Debate | 4.5 | SOCI 2311 | Juvenile Justice ${ }^{\text {® }}$ | 4.5 |
| SPCH 1220 | Communication in Small Groups | 4.5 | SOCI 2450 | Social Psychology ${ }^{\text {® }}$ | 4.5 |
| SPCH 1300 | Interpersonal Communication | 4.5 | SOCI 2550 | Popular Readings in Social Science* ${ }^{*}$ | 4.5 |
| SPCH 2900 | Special Topics in Communication | variable | SOCI 2650 | Research Methods ${ }^{\text {® }}$ | 4.5 |


| Natural Sciences |  |  |
| :---: | :---: | :---: |
| Biology |  |  |
| BIOS 1010 | Introduction to Biology ${ }^{\text {e }}$ © | 6.0 |
| BIOS 1010L | Introduction to Biology Lab | 0.0 |
| BIOS 1111 | Biology I | 5.0 |
| BIOS 1111L | Biology I Lab | 0.0 |
| BIOS 1121 | Biology II | 5.0 |
| BIOS 1121L | Biology II Lab | 0.0 |
| BIOS 1130 | Biology III | 5.0 |
| BIOS 1130L | Biology II Lab | 0.0 |
| BIOS 1310 | Survey of Human Anatomy and Physiology | 5.0 |
| BIOS 1310L | Survey of Human Anatomy and Physiology Lab | 0.0 |
| BIOS 1400 | Introduction to Botany | 4.5 |
| BIOS 1400L | Introduction to Botany Lab | 0.0 |
| BIOS 1500 | Introduction to Bioprocessing | 4.5 |
| BIOS 1500L | Introduction to Bioprocessing Lab | 0.0 |
| BIOS 2150 | Microbiology | 6.0 |
| BIOS 2150L | Microbiology Lab | 0.0 |
| BIOS 2310 | Human Anatomy and Physiology I | 6.0 |
| BIOS 2310L | Human Anatomy and Physiology I Lab | 0.0 |
| BIOS 2320 | Human Anatomy and Physiology II | 6.0 |
| BIOS 2320L | Human Anatomy and Physiology II Lab | 0.0 |
| Chemistry |  |  |
| CHEM 1010 | College Chemistry ${ }^{\text {® }}$ | 6.0 |
| CHEM 1010L | College Chemistry Lab | 0.0 |
| CHEM 1120 | Chemistry for the Health Sciences I | 3.0 |
| CHEM 1120L | Chemistry for the Health Careers Lab | 0.0 |
| CHEM 1130 | Chemistry for Health Sciences II | 3.0 |
| CHEM 1130L | Chemistry for the Health Careers II Lab | 0.0 |
| CHEM 1210 | General Chemistry: Part I | 2.0 |
| CHEM 1210L | General Chemistry: Part I Lab | 0.0 |
| CHEM 1211 | General Chemistry: Part II | 4.0 |
| CHEM 1211L | General Chemistry: Part II Lab | 0.0 |
| CHEM 1212 | General Chemistry I: Accelerated | 6.0 |
| CHEM 1212L | General Chemistry I: Accelerated Lab | 0.0 |
| CHEM 1220 | General Chemistry II | 6.0 |
| CHEM 1220L | General Chemistry II Lab | 0.0 |
| CHEM 1510 | Chemistry for Bioindustry I | 3.0 |
| CHEM 1510L | Chemistry for Bioindustry I Lab | 0.0 |
| CHEM 1520 | Chemistry for Bioindustry II | 3.0 |
| CHEM 1520L | Chemistry for Bioindustry II Lab | 0.0 |
| CHEM 2310 | Fundamentals of Organic Chemistry | 6.0 |
| CHEM 2310L | Fundamentals of Organic Chemistry Lab | 0.0 |
| CHEM 232A | Organic Chemistry IA | 2.5 |
| CHEM 232AL | Organic Chemistry IA Lab | 0.0 |
| CHEM 232B | Organic Chemistry IB | 2.5 |
| CHEM 232BL | Organic Chemistry IB Lab | 0.0 |
| CHEM 232C | Organic Chemistry IC | 2.5 |
| CHEM 232CL | Organic Chemistry IC Lab | 0.0 |
| CHEM 233A | Organic Chemistry IIA | 2.5 |
| CHEM 233AL | Organic Chemistry IIA Lab | 0.0 |
| CHEM 233B | Organic Chemistry IIB | 2.5 |
| CHEM 233BL | Organic Chemistry IIB Lab | 0.0 |
| CHEM 233C | Organic Chemistry IIC | 2.5 |
| CHEM 233CL | Organic Chemistry IIC Lab | 0.0 |
| Geography |  |  |
| GEOG 1150 | Introduction to Physical Geography Weather and Climate ${ }^{\wedge}$ | 6.0 |
| GEOG 1160 | Introduction to Physical Geography Landforms ${ }^{-3}$ | 6.0 |
| GEOG 1210 | Introduction to Physical Geology* | 6.0 |
| Physics |  |  |
| PHYS 1010 | Applied Physics | 4.5 |
| PHYS 1010L | Applied Physics Lab | 0.0 |
| PHYS 110A | Principles of Physics IA | 2.5 |
| PHYS 110AL | Principles of Physics IA Lab | 0.0 |


| PHYS 110B | Principles of Physics IB | 2.5 |
| :---: | :---: | :---: |
| PHYS 110BL | Principles of Physics IB Lab | 0.0 |
| PHYS 110C | Principles of Physics IC | 2.5 |
| PHYS 110CL | Principles of Physics IC Lab | 0.0 |
| PHYS 111A | Principles of Physics IIA | 2.5 |
| PHYS 111AL | Principles of Physics IIA Lab | 0.0 |
| PHYS 111B | Principles of Physics IIB | 2.5 |
| PHYS 111BL | Principles of Physics IIB Lab | 0.0 |
| PHYS 111C | Principles of Physics IIC | 2.5 |
| PHYS 111CL | Principles of Physics IIC Lab | 0.0 |
| PHYS 210A | General Physics IA | 2.5 |
| PHYS 210AL | General Physics IA Lab | 0.0 |
| PHYS 210B | General Physics IB | 2.5 |
| PHYS 210BL | General Physics IB Lab | 0.0 |
| PHYS 210C | General Physics IC | 2.5 |
| PHYS 210CL | General Physics IC Lab | 0.0 |
| PHYS 211A | General Physics IIA | 2.5 |
| PHYS 211AL | General Physics IIA Lab | 0.0 |
| PHYS 211B | General Physics IIB | 2.5 |
| PHYS 211BL | General Physics IIB Lab | 0.0 |
| PHYS 211C | General Physics IIC | 2.5 |
| PHYS 211CL | General Physics IIC Lab | 0.0 |
| Science |  |  |
| SCIE 1010 | Introduction to Physical Science ${ }^{-3}$ | 6.0 |
| SCIE 1010L | Introduction to Physical Science Lab | 0.0 |
| SCIE 1300 | Astronomy ${ }^{\text {e }}$ | 4.5 |
| SCIE 1310 | Astronomy Laboratory ${ }^{\text {® }}$ | 1.5 |
| SCIE 1400 | Introduction to Meteorology | 6.0 |
| SCIE 1400L | Introduction to Meteorology Lab | 0.0 |
| Other |  |  |
| Information Systems and Literacy |  |  |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| Human Relations Skills |  |  |
| HMRL 1010 | Human Relations Skills $\uparrow$ | 4.5 |
| Quantitative/Numeracy Skills |  |  |
| Finance |  |  |
| FINA 1000 | Financial Literacy | 4.5 |
| NOTE: FINA 1000 Financial Literacy is acceptable only in certain programs. Check your program of study. |  |  |
| Mathematics |  |  |
| MATH 1220 | Business Mathematics ${ }^{\text {® }}$ | 4.5 |
| MATH 1240 | Applied Mathematics | 4.5 |
| MATH 1242 | Applied Math for the Hospitality Industry | 4.5 |
| MATH 1260 | Geometry | 4.5 |
| MATH 1310 | Intermediate Algebrave | 4.5 |
| MATH 1410 | Statistics ${ }^{\text {P }}$ | 4.5 |
| MATH 1420 | College Algebras | 5.0 |
| MATH 1430 | Trigonometry ${ }^{\text {e }}$ | 4.5 |
| MATH 2410 | Calculus IVo | 7.5 |
| MATH 2411 | Calculus IITB | 7.5 |
| MATH 2412 | Calculus IIIP | 6.0 |
| MATH 2510 | Differential Equations | 4.5 |
| NOTE: MATH courses 1310 and higher can be used as a math course for transfer. |  |  |

## A PLACE TO START

Are you new to MCC?
Would you like to explore career options?
Are you ready to dive right in and take some classes?
This list is a good place to start.
Every course on this list can be taken with no prerequisites or pre-tests. Each course either gives you an introduction to a career path or counts toward general education requirements for most degrees
While not required during your first quarter, visiting with an advisor can assist you in finding classes that best meet your needs.
Consider this a quick start - a way to enroll in classes without waiting.

## Career-Oriented Courses

## Accounting

ACCT 1050-Bookkeeping
ACCT 1100-Accounting I
Architectural Design Technology
ARCH 1000-Appreciation of architecture
ARCH 1100-Beginning AutoCAD

## Arts

ARTS 1000-Introduction to the Visual Arts
ARTS 1010-Elementary Drawing
ARTS 1020-2-D Design
ARTS 1050-Creative Careers

## Auto Collision Technology

AUTB 1040-Auto Collision Repair Welding
AUTB 1100-Structural Repair
AUTB 1200-Nonstructural Repair I

## Automotive Technology

AUTT 1010-Introduction to Auto Service and Minor Repair
AUTT 1210-Automotive Electricity and Electronics I

## Business Management

BSAD 1000-Introduction to Business
BSAD 1100-Business Law I
BSAD 1250-Introduction to Not-For-Profit Management
BSAD 1600-Principles of Supervision
BSAD 2100-Principles of Management
ENTR 1050-Introduction to Entrepreneurship
Civil Engineering Technology
SCET 1000-Civil Engineering Fundamentals
SCET 1050-Building Construction
SCET 1070-Contracts and Specifications
Construction and Building Science
CNST 1000-Introduction to Building Construction
CNST 1050-Introduction to Carpentry
Criminal Justice
CRIM 1010-Introduction to Criminal Justice
CRIM 1020-Introduction to Corrections
Culinary, Hospitality, Research, and Management
CHRM 1000-Career Orientation/Culinary Arts
CHRM 1020-Sanitation
Design, Interactivity, and Media Arts
DIMA 1110-Digital Design: Raster
DIMA 1120-Digital Design: Vector
Diesel Technology
DESL 1000-Diesel Preventive Maintenance
DESL 1115-Alternative Fueled Engines
DESL 1200-Fundamentals of Hydraulics
DESL 1230-Diesel Engine Fundamentals
Early Childhood Education
ECED 1110-Infant and Toddler Development
ECED 1120-Preschool Child Development
ECED 1150-Introduction to Early Childhood Education
Electrical Technology
ELTR 1200-Basic Electricity

## Pre-Engineering

ENGR 1010-Introduction to Engineering Design

## Finance

FINA 1000-Financial Literacy
FINA 110-Principles of Property and Casualty Insurance
Health Information Management Systems
HIMS 1111-Healthcare Careers
HIMS 1120-Medical Terminology I
Health Information Technology
HITP 1005-Introduction to Electronic Health Records
HITP 1010-Introduction to Health Information Technology
Horticulture, Land Systems, and Management
HLSM 1000-Horticulture, Land Systems, and Management Orientation
Heating, Air Conditioning, and Refrigeration
HVAC 1000-Refrigeration Electrical Theory and Application
HVAC 1010-Refrigeration Service Principles and Basic Automatic Controls

## Human Relations

HMRL 1010-Human Relations Skills
HMRL 1050-Leadership: Training and Skill Development

## Human Services

HMSV 1010-Introduction to Human Services
HMSV 1110-Interpersonal Communication Skills
Industrial and Commercial Trades
INCT 0900-Introduction to the Trades
INCT 1000-Industrial Safety and Health
INCT 1010-Introduction to the Trades II
INCT 1050-Mechanical Print Reading
INCT 1301-Home and Building Maintenance Carpentry
INCT 1400-Introduction to Precision Machine Technology
INCT 1500-Introduction to Distribution
INCT 2050-Problem Solving
Information Technology
INFO 1001-Information Systems and Literacy
Insurance
INSU 1000-Principles of Health and Life Insurance
INSU 1100-Principles of Property and Casualty Insurance
Interior Design
INTD 1100-Illustration Techniques for Interiors
INTD 1310-Fundamentals of Textiles
Legal Studies
LAWS 1100-The Paralegal Profession
LAWS 1101-Introduction to Law
Mechanical Drafting Technology
DRAF 1100-AutoCAD Fundamentals
DRAF 1300-Inventor Fundamentals
Photography
PHOT 1005-Basic Photography I - Digital

## Process Operations Technology

PROT 1000-Introduction to Process and Power Operations
PROT 1010-Safety Topics for Process and Power Operations
PROT 1100-Process Instrumentation and Control
PROT 1110-Reading and Understanding Process Diagrams
PROT 1250-Basic Electricity for Power and Process
PROT 1302-Stationary Engineering I

## Real Estate

REES 1000-Real Estate Principles

## Social Work

SOWK 1010-Introduction to Social Work

## Theatre

THEA 1000-Introduction to the Theatre
THEA 2020-Fundamentals of Acting I

Video/Audio Communication Arts
PHOT 1500-Moving Image Lab
VACA 1010-Audio and Video Production Engineering
VACA 1020-Audio

## Welding

WELD 1000-Print Reading for Welders
WELD 1100-Industrial Cutting Processes
WELD 1200-Gas Metal Arc Welding (MIG) - Steel I

## General Education Courses

## Humanities

HUMS 1000-Humanities through the Arts
HUMS 1100-Classical Humanities
HUMS 1110-Origins of the Humanities
MUSC 1010-Introduction to Music I
MUSC 1020-Introduction to Music II
MUSC 1050-Music Appreciation
PHIL 1010-Introduction to Philosophy
PHIL 1030-Professional Ethics
PHIL 1100-Critical Reasoning

## Languages

ARAB 1010-Introduction to Arabic
CHIN 1110-Beginning Chinese I
FREN 1010-Beginning French I
GERM 1010-Elementary German I
JAPN 1010-Beginning Japanese I
SPAN 1110-Elementary Spanish I

## Science

BIOS 1010-Introduction to Biology
BIOS 1250-Environmental Biology
BIOS 1310-Survey of Human Anatomy and Physiology

## Reading and Learning Skills

RDLS 1150-College Vocabulary
RDLS 1200-College Success Strategies

## Social Science

GEOG 1010-Fundamentals of Geography
GEOG 1020-World Regional Geography
GEOG 1050-Introduction to Human Geography
GEOG 1210-Introduction to Physical Geology
HIST 1010-US History to 1877
HIST 1020-US History from 1865 to Present
HIST 1050-Introduction to Black History
HIST 1120-World Civilization from 1500 to Present
POLS 2050-American National Government
PSYC 1000-Psychology for Everyday Living
PSYC 1010-Introduction to Psychology
PSYC 1120-Human Growth and Development

## Speech

SPCH 1110-Public Speaking
SPCH 1300-Interpersonal Communication
Workplace Skills
WORK 1230-Career Planning
WORK 1250-Learning Anxiety
WORK 1400-Employability Skills
WORK 1410-Secrets to Business Success
WORK 1420-Interpersonal Communication Skills for the Workplace

## PROGRAMS OF STUDY

## 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 college-wide 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; and
- 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 benefactors are the students.

Students complete assessment activities as part of this important assessment process.

## Programs of Study Grid

The programs of study grid that follows lists the degrees, certificates of achievement, and career certificates offered by MCC for 2014-2015. Program details can be found in the dean office section of the catalog shown in the grid:
AT - Applied Technology
BU - Business and Human Services
CA - Culinary, Hospitality, and Horticulture
ER - English, English as a Second Language, and Reading
HE - Health and Public Services
HM - Humanities and Visual Arts
IE - Information Technology and E-Learning
LW - Literacy and Workplace Skills
MS - Math and Natural Sciences
SS - Social Sciences

|  | MCC 2014-2015 <br> Programs of Study | Awards Offered |  |  | Locations Offered |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | $\stackrel{\text { O }}{\text { ¢ }}$ |
| BU | Accounting | X |  |  |  | X | x |  |  | X |  |  |  |
| AT | Apprentice-Related Technology | X |  |  |  |  |  |  |  | X |  |  |  |
| AT | Architectural Design Technology | X |  | X |  | X |  |  |  |  |  |  |  |
| HM | Art | X | X |  |  | X |  |  |  |  |  |  |  |
| AT | Auto Collision Technology | X | X | X | X |  |  |  |  |  |  |  |  |
| AT | Automotive Technology | x | X | X |  |  |  |  |  | X |  |  |  |
| BU | Bookkeeping |  | X |  |  | X | X |  |  | X |  |  |  |
| BU | Business Management | X | X | X |  | X | X |  | x | X |  |  | x |
| BU | Business Transfer | X |  |  |  | X | X |  |  | X |  |  | x |
| AT | CDL-A Truck Driving |  |  | X | X |  |  |  |  |  |  |  |  |
| AT | Civil Engineering Technology | X | x | X |  | X |  |  |  |  |  |  |  |
| IE | Computer Technology Transfer | X |  |  | , |  | X |  | x | X |  |  | x |
| AT | Construction and Building Science | X | X | X | X |  |  |  |  | X |  |  |  |
| HE | Criminal Justice | X |  |  |  |  |  |  |  | X |  |  | x |
| IE | Critical Facilities Operations | X |  |  |  |  | X |  |  | X |  |  |  |
| CA | Culinary Arts and Management | X | X | X |  |  | X |  |  |  |  |  |  |
| HE | Dental Assisting |  | X |  |  |  |  |  |  | X |  |  |  |
| HM | Design, Interactivity, and Media Arts | X | X | X |  | X |  |  |  |  |  |  |  |
| AT | Diesel Technology | X |  | X | X |  |  |  |  |  |  |  |  |
| SS | Early Childhood Education | X | X | X |  |  | X |  |  |  |  |  |  |
| AT | Electrical Apprenticeship | X |  |  |  |  |  |  |  | X |  |  |  |
| AT | Electrical Technology | X | X | X |  |  |  |  |  | X |  |  |  |
| IE | Electronics Technology | X | x | X |  |  |  |  |  | X |  |  |  |
| HE | Fire Science Technology | X |  |  |  |  |  |  |  | X |  |  |  |
| IE | General Information Technology | X | x |  |  |  | X |  | x | X |  |  | x |
| SS | General Studies | X |  |  |  | x | x |  |  | x |  |  |  |
| IE | Healthcare Information and Administration | X |  |  |  |  |  |  |  |  |  |  | X |
| IE | Health Information Management Systems | x | X | X |  | X | X |  | x | X |  |  | x |
| IE | Health Information Technology <br> Professional | X |  | X |  |  |  |  |  |  |  |  | X |
| AT | Heating, Air Conditioning and Refrigeration Technology | X | X | X |  | X |  |  |  |  |  |  |  |


|  | MCC 2014-2015 <br> Programs of Study | Awards Offered |  |  | Locations Offered |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| CA | Horticulture, Land Systems, and Management | X | X | X |  |  | X |  |  |  |  |  |  |
| CA | Hospitality And Restaurant Leadership | X |  | X |  |  | X |  |  |  |  |  |  |
| HM | Humanities |  |  | x |  |  |  |  |  |  |  |  |  |
| BU | Human Services | X | X |  |  |  | X |  |  |  |  |  |  |
| AT | Industrial and Commercial Trades | X | X | X |  |  |  |  |  | X |  |  |  |
| IE | Information Technology | X | X |  |  |  | x |  | x | X |  |  | x |
| HM | Interior Design | X |  |  |  | X |  |  |  |  |  |  |  |
| HM | Language Interpretation |  | X |  |  |  |  |  |  |  |  |  | x |
| BU | Legal Studies | X | X | X |  |  |  |  |  | X |  |  |  |
| SS | Liberal Arts/Academic Transfer Associate in Arts | X |  |  |  | X | X |  |  | X |  |  |  |
| MS | Liberal Arts/Academic Transfer - <br> Associate in Science | X |  |  |  | X | X | X | X | X |  |  | X |
| HM | Liberal Arts/Academic Transfer Language Studies | X |  |  |  | X | X |  |  | X |  |  |  |
| AT | Mechanical Design Technology | X | X | X |  |  | X |  |  |  |  |  |  |
| HE | Medical Assisting |  | X |  |  |  |  |  |  | X |  |  |  |
| IE | Medical Office |  | X |  |  | X | X |  |  | X |  |  | x |
| IE | Microcomputer Office Technology |  | X |  |  |  | X |  |  | X |  |  | x |
| HE | Nursing - Associate Degree | X |  |  |  |  |  |  |  | X |  |  |  |
| HE | Nursing - Practical |  | X |  |  |  |  |  |  | X |  |  |  |
| IE | Office Technology | X |  | X |  |  | X |  |  | X |  |  | x |
| HE | Paramedicine |  | x |  |  |  | X |  |  | X |  |  |  |
| IE | Patient Transfer Coordinator |  |  | x |  |  |  |  |  |  |  |  |  |
| HM | Photography | X |  |  |  | X |  |  |  |  |  |  |  |
| AT | Plumbing Apprenticeship | X |  |  |  |  |  |  |  | X |  |  |  |
| AT | Process Operations Technology | X |  | X |  |  |  |  |  |  | X |  |  |
| HE | Professional Health Studies | X |  |  |  |  |  |  |  | X |  |  |  |
| LW | Professional Skills |  |  | X |  |  |  |  |  |  |  | X |  |
| HE | Respiratory Care Technology | X |  |  |  |  |  |  |  | X |  |  |  |
| HM | Spanish |  |  | X |  | x | X |  |  | X |  |  |  |


|  | MCC 2014-2015 <br> Programs of Study | Awards Offered |  |  | Locations Offered |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 坒 |
| HM | Theatre | X | X | X |  | X | X |  |  | X |  |  |  |
| AT | Utility Line Technician | X |  |  | X |  |  |  |  |  |  |  |  |
| HM | Video/Audio Communications Arts | x | X |  |  | x |  |  |  |  |  |  |  |
| AT | Welding Technology | X | X | X |  |  | X | x |  | X |  |  |  |

## Applied Technology

## Who We Are

The Applied Technology area offers a wide range of career options within the skilled trades. Training options range from a single course to a two-year associate degree, as well as apprenticeship training programs

## Our Mission Statement

To prepare a diverse student body for entry-level employment and advancement opportunities as technical professionals in a wide variety of industries. We accomplish this by providing:

- learning experiences that allow students to meet their educational goals, realize their potential, and develop an understanding of career options
- high quality, hands-on learning environments using the latest in technology, software, and equipment
- lab settings that simulate real work environments
- knowledge, skills, and competencies necessary for students to be successful in their chosen career paths


## Architectural Design Technology

This program combines drawing skills with architectural knowledge and powerful CAD software tools to prepare students for careers as professional architectural design technicians in the offices of architects, engineers, contractors, and materials suppliers. Students build a strong foundation of knowledge by learning classical drafting techniques, the art and language of architecture, the design process, how methods and materials shape buildings, the relationship among structural types, space usage, and how architecture reflects the culture for which it is built. Students apply these fundamentals, along with the latest architectural software principles and techniques, to practical lab projects.

## Degree: Associate in Applied Science

Architectural Design Technology

- Architectural Design option
- Architectural Documentation option

Career Certificate:
Architectural Documentation Software
Architectural Imaging

## Architectural Design Technology (ADAS2)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
This degree trains students in the means, methods and cultural significance of the built environment in a project-based problem-enhanced curriculum. Architecture blends science, technology, engineering, art, and math in the creation and operation of the facilities that support and enrich society.

Architectural studies strengthen interpersonal communication and public speaking skills; develop critical thinking and collaborative skills; and give a solid background in interdisciplinary arts, social awareness, and appreciation of diverse cultures.

Students who successfully complete this degree can go directly into the architecture engineering and construction industry workforce. This degree also provides a strong technical foundation for students who choose to go on to a baccalaureate institution to major in architecture, engineering, construction or related humanities or education fields.
This degree builds a strong foundation by blending classical drafting techniques with state-of-the-art computer-aided design. Students 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 40.5
Option requirements 24.0-27.0
Total credit hours required
96.0-99.0

## General education requirements ( 31.5 credit hrs.)

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

## Communications

English level I
4.5
English level II $\quad 4.5$

See Communications course options (p. 25)
$\begin{array}{lll}\text { Humanities/social sciences } & \\ \text { ARCH } 1000 & \text { Appreciation of Architecture® } & 4.5\end{array}$
Quantitative/numeracy skills
MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B 4.5
MATH 1430 Trigonometry 0.5
Other
HMRL $1010 \quad$ Human Relations Skills $७$ • 4.5
INFO 1001 Information Systems and Literacy ${ }^{\circ}$ © 4.5

## Major requirements for Architectural Design Technology ( 40.5 credit hrs.)

Courses
ARCH 1100 Beginning AutoCAD 4.5
ARCH 1110 Intermediate AutoCAD 4.5
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5
ARCH $1130 \quad$ Intermediate REVIT (Building) 4.5
ARCH $1140 \quad$ Advanced REVIT Architecture 4.5
ARCH 1200 Wood-Frame Architecture © 9.0
ARCH 2410 Commercial Architecture $\quad 9.0$

## Option requirements for Architectural Design Technology ( $24.0-27.0$ credit hrs.)

The Architectural Design Technology options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

## Architectural Design (24.0 credit hrs.)

Architectural Design Technology - Architectural Design (ADADO) (p. 33)
Architectural Documentation ( 27.0 credit hrs.)
Architectural Design Technology - Architectural Documentation (ADDSO) (p. 34)

## Architectural Design Technology - Architectural Design (ADADO)

Award: Associate in applied science degree

## Program location: Elkhorn Valley Campus

This degree builds a strong foundation by blending classical drafting techniques with state-of-the-art computer-aided design. Students 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 40.5
Option requirements 24.0
Total credit hours required 96.0

## General education requirements

See General education requirements for Architectural Design Technology (p. 33)

## Major requirements for Architectural Design Technology

See Major requirements for Architectural Design Technology (p. 33)

## Option requirements for Architectural Design Technology - Architectural Design ( 24.0 credit hrs.)

## Courses

ARCH $2420 \quad$ Renovation Architecture 8.0
ARCH $2520 \quad$ Beginning 3-D Studio Max 4.0
ARCH $2530 \quad$ Intermediate 3-D Studio Max 4.0
ARCH 2600 High-Rise Architecture 8.0

## Curriculum Plan

Below is a suggested guide for students planning careers in architectural design after two years of full-time study.

## First Year

First quarter
ARCH 1000
ARCH 1100
Appreciation of Architecture • 4.5

MATH 1310
Second quarter
ARCH 1200
INFO 1001
MATH 1430
Third quarter
ARCH 1120
ARCH 1130
ARCH 2410
Second Year
Fifth quarter
ARCH 2420

HMRL 1010
Sixth quarter
ARCH 2520
ARCH 2530
ARCH 2600
Seventh quarter
ARCH 1140
Beginning AutoCAD 4.5
Intermediate AutoCAD 4.5
Intermediate Algebraß 4.5

Wood-Frame Architecture 『 9.0
Information Systems and Literacy ${ }^{-}$© 4.5
Trigonometry ${ }^{*} \quad 4.5$

Beginning REVIT (Building) 4.5
Intermediate REVIT (Building) 4.5
Commercial Architecture © 9.0

Renovation Architecture 8.0
English level I 4.5
Human Relations Skills $\smile$ © 4.5

Beginning 3-D Studio Max 4.0
Intermediate 3-D Studio Max 4.0
High-Rise Architecture『 8.0

Advanced REVIT Architecture 4.5

English level II 4.5
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Architectural Design Technology - Architectural Documentation (ADDSO)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
This degree prepares students to enter the architecture, engineering, and construction industry as BIM/CAD technicians. The coursework instructs students in the theory and practical applications necessary to document construction requirements for existing and proposed projects. All core classes are offered hands-on in state-of-the-art computer labs where students develop a digital portfolio consisting of complete architectural documents for light and commercial projects.

## Graduation Requirements

General education 31.5

Major requirements 40.5
Option requirements 27.0
Total credit hours required 99.0

## General education requirements

See General education requirements for Architectural Design Technology (p. 33)

## Major requirements for Architectural Design Technology

See Major requirements for Architectural Design Technology (p. 33)

## Option requirements for Architectural Design Technology - Architectural Documentation ( 27.0 credit hrs.)

Courses
ARCH $1010 \quad$ Visual Literacy and Graphic Communication I 4.5
ARCH $1015 \quad$ Visual Literacy and Graphic Communication 4.5
ARCH $1150 \quad$ Advanced AutoCAD 4.5
ARCH $2700 \quad$ Construction Detailing I 4.5
ARCH $2710 \quad$ Construction Detailing II 4.5
ARCH $2720 \quad$ Construction Detailing III 4.5
Curriculum Plan
Below is a suggested guide for students planning careers in architectural documentation after two years of full-time study.
First Year
First quarter
ARCH 1000 Appreciation of Architecture® 4.5

ARCH $1010 \quad$ Visual Literacy and Graphic Communication I 4.5
ARCH $1100 \quad$ Beginning AutoCAD 4.5
ARCH 1110 Intermediate AutoCAD 4.5
Second quarter Visual Literacy and Graphic Communication 4.5
ARCH 1200 Wood-Frame Architecture® 9.0
INFO 1001 Information Systems and Literacy ${ }^{\circ}$ © 4.5

Third quarter
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5
ARCH $1130 \quad$ Intermediate REVIT (Building) 4.5
ARCH 1150 Advanced AutoCAD 4.5
ARCH $2700 \quad$ Construction Detailing I 4.5
Second Year
Fifth quarter
ARCH $1140 \quad$ Advanced REVIT Architecture 4.5
ARCH 2410 Commercial Architecture $\quad 9.0$

English level I 4.5
Sixth quarter
ARCH $2710 \quad$ Construction Detailing II 4.5
MATH 1310 Intermediate Algebra $\circlearrowleft$ 4.5
English level II 4.5
Seventh quarter
ARCH 2720
Construction Detailing III
4.5

HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
MATH $1430 \quad$ Trigonometry 3.5

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Architectural Documentation Software (ADSCC)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides an intermediate skill level with construction documentation software currently used in the architecture, engineering, and construction industry.

## Requirements for Architectural Documentation Software career certificate ( 27.0 credit hrs.)

## Courses

ARCH 1100
Beginning AutoCAD
ARCH $1110 \quad$ Intermediate AutoCAD 4.5
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5
ARCH $1130 \quad$ Intermediate REVIT (Building) 4.5
ARCH $1140 \quad$ Advanced REVIT Architecture 4.5
ARCH 1150
Advanced AutoCAD

## Architectural Imaging (AAISD)

Award: Career certificate
Program location: Elkhorn Valley Campus
Students who earn this career certificate have shown that they have an intermediate skill level with the graphic software currently used in the offices of architects and engineers.

## Requirements for Architectural Imaging career certificate ( 26.0 credit hrs.)

## Courses

ARCH $1100 \quad$ Beginning AutoCAD 4.5
ARCH $1110 \quad$ Intermediate AutoCAD 4.5
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5
ARCH $1130 \quad$ Intermediate REVIT (Building) 4.5
ARCH $2520 \quad$ Beginning 3-D Studio Max 4.0
ARCH 2530 Intermediate 3-D Studio Max 4.0

## Auto Collision Technology

This program covers the entire scope of the auto collision field, including basic and advanced metal finishing repair, frame repair and alignment, panel replacement, major body repair, estimating, and all aspects of automotive painting using the latest technology.
Degree: Associate in Applied Science
Auto Collision Technology
Certificate of Achievement:
Auto Collision Technology
Career Certificate:
Auto Collision Estimating

## Auto Collision Technology (ABAS1)

Award: Associate in applied science degree
Program location: Applied Technology Center
This degree 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.
For entry into the Auto Collision program, a written mechanical reasoning test is required.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | $70.5-78.5$ |
| Total credit hours required | $\mathbf{9 7 . 5 - 1 0 5 . 5}$ |

## General education requirements ( 27.0 credit hrs.)

## Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacy $\prec$ © 4.5

## Major requirements for Auto Collision Technology (70.5-78.5 credit hrs.)

## Courses

AUTB $1040 \quad$ Auto Collision Repair Welding 3.0
AUTB 1100 Structural Repair I 3.0
AUTB $1110 \quad$ Structural Repair II 3.0
AUTB $1200 \quad$ Nonstructural Repair I 6.0
AUTB $1210 \quad$ Nonstructural Repair II 6.0
AUTB $1220 \quad$ Nonstructural Repair III 6.0
AUTB $2120 \quad$ Structural Repair III 3.0
AUTB $2230 \quad$ Nonstructural Repair IV $\quad 6.0$
AUTB $2240 \quad$ Nonstructural Repair V 6.0
AUTB 2981 Auto Collision Internship variable
AUTB 2241 Nonstructural Repair VI 6.0
AUTB 2981 Auto Collision Internship variable
AUTB 2300 Automotive Refinishing I 3.0
AUTB $2310 \quad$ Automotive Refinishing II 6.0
AUTB 2450 Collision Estimating I 3.0
AUTB $2460 \quad$ Collision Estimating II 3.0
AUTB $2550 \quad$ Electrical and Mechanical Systems 3.0
RDLS $1200 \quad$ College Success Strategies $\mathcal{B} \quad 4.5$
OR
Elective 4.5

## Accelerated Lockstep Program Option

Entrance into the accelerated lockstep program option is determined by an application process. Contact an academic advisor or Student Services to acquire an application packet.

| First quarter (Fall) |  |  |
| :---: | :---: | :---: |
| AUTB 1040 | Auto Collision Repair Welding | 3.0 |
| AUTB 1100 | Structural Repair I | 3.0 |
| AUTB 1110 | Structural Repair II | 3.0 |
| AUTB 1200 | Nonstructural Repair I | 6.0 |
| AUTB 2450 | Collision Estimating I | 3.0 |
| ENGL 1230 | Business Writing ${ }^{\text {O }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |
| RDLS 1200 | College Success Strategies $\checkmark^{\text {® }}$ | 4.5 |
|  | OR |  |
|  | Elective | 4.5 |

## Second quarter (Winter)

A basic tool set is required by the beginning of the second quarter classes.

| AUTB 1210 | Nonstructural Repair II | 6.0 |
| :---: | :---: | :---: |
| AUTB 2120 | Structural Repair III | 3.0 |
| AUTB 2300 | Automotive Refinishing I | 3.0 |
| AUTB 2460 | Collision Estimating II | 3.0 |
| AUTB 2550 | Electrical and Mechanical Systems | 3.0 |
| ENGL 1240 | Oral and Written Reports ${ }^{\text {® }}$ | 4.5 |
|  | Humanities/social science elective | 4.5 |
| Third quarter (Spring) |  |  |
| AUTB 1220 | Nonstructural Repair III | 6.0 |
| AUTB 2230 | Nonstructural Repair IV | 6.0 |
| AUTB 2310 | Automotive Refinishing II | 6.0 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| MATH 1240 | Applied Mathematics | 4.5 |
| Fourth quarter (Summer) |  |  |
| AUTB 2981 | Auto Collision Internship | variable |
|  | OR |  |
| AUTB 2240 | Nonstructural Repair V | 6.0 |
| AUTB 2981 | Auto Collision Internship | variable |
|  | OR |  |
| AUTB 2241 | Nonstructural Repair VI | 6.0 |

AUTB 2240, AUTB 2241: Students must complete all other degree requirements before signing up for the internship. AUTB 2240 or AUTB 2241 may be substituted for the internship if offered during the summer quarter. Both internship courses must be completed.

## Auto Collision Technology (ABTC1)

Award: Certificate of achievement
Program location: Applied Technology Center
This certificate of achievement covers basic sheet metal and frame repair.

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | 36.0 |

Total credit hours required 49.5
General education requirements ( 13.5 credit hrs.)
Communications
English level I
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences options (p. 25)
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills options (p. 27)

## Major requirements for Auto Collision Technology (36.0 credit hrs.)

Courses
AUTB $1040 \quad$ Auto Collision Repair Welding 3.0
AUTB $1100 \quad$ Structural Repair I 3.0
AUTB $1110 \quad$ Structural Repair II 3.0
AUTB $1200 \quad$ Nonstructural Repair I 6.0
AUTB $1210 \quad$ Nonstructural Repair II 6.0
AUTB $1220 \quad$ Nonstructural Repair III 6.0
AUTB $2120 \quad$ Structural Repair III 3.0
Select 6.0 credit hours of electives.
Degree-seeking students may take 4.5 hours from any elective, but the other 1.5 hours should come from the major requirements for Auto Collision Technology (p. 35), HMRL 1010, or INFO 1001.

## Auto Collision Estimating (ACESD)

Award: Career certificate
Program location: Applied Technology Center
This career certificate qualifies students 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 career certificate ( 27.0 credit hrs.)

## Courses

AUTB 1100 Structural Repair I 3.0
AUTB $1200 \quad$ Nonstructural Repair I 6.0
AUTB $1210 \quad$ Nonstructural Repair II $\quad 6.0$
AUTB $2300 \quad$ Automotive Refinishing I 3.0
AUTB $2450 \quad$ Collision Estimating I 3.0
AUTB $2460 \quad$ Collision Estimating II 3.0
AUTB $2550 \quad$ Electrical and Mechanical Systems 3.0

## Automotive Technology

The Automotive Technology program is NATEF certified, hands-on, and focuses on preparing students for careers in the automotive field. The program works closely with regional and national industry to encourage growth and training in preparation for real-world work environments. This program utilizes the most current technology and testing equipment to enhance the training required by today's automotive industry.
Degree: Associate in Applied Science
Automotive Technology
Certificate of Achievement:
Basic Automotive Service
Career Certificate:
Automotive Electronics
Automotive Transmissions and Transaxles
Automotive Brakes and Suspension

## Automotive Technology (AUAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus

The Automotive Technology program is a National Automotive Technicians Education Foundation (NATEF) MASTER certified program. This is the highest achievement an institution can receive. All MCC instructors are Automotive Service Excellence (ASE) Master Technicians in the fields they teach. MCC is the only college to offer both day and evening classes to meet the needs of those with busy schedules. See the class schedule for class and entry point offering times.
MCC offers an "express lane" certificate for students who successfully complete the first quarter classes so they can show prospective employers their achievements and begin their path to a successful career. This opportunity allows students to earn a living while they attend hybrid classes. Hybrid classes allow students to take tests and prepare for class at their convenience online, and then come to the campus to get hands-on training and mini lectures. This allows students to use their time wisely and not have to sit through long lectures. Class time uses a team-based learning format. Classes are very interactive and provide a high level of engagement.
Other nationally recognized certificates earned along the way include:

- Safety and Pollution Prevention, SP/2 training
- ASE Student Certification
- National Coalition of Certification Centers (NC3) certification for the Snap-On

Verus Pro, Vantage Pro, Multimeter systems

## Tool Requirements

The automotive technology program supplies the tools needed for course studies while on campus. Tools used on the job must be purchased when you begin employment or enroll in the internship portion of the program.

## Graduation Requirements

| General education | 27.0 |
| :--- | :---: |
| Major requirements | 83.0 |
| Total credit hours required | 110.0 |

General education requirements（ 27.0 credit hrs．） Communications
English level I

English level II
See Communications course options（p．25）
Humanities／social sciences
Humanities／social sciences 4.5
See Humanities／social sciences options（p．25）
Quantitative／Numeracy Skills
MATH $1240 \quad$ Applied Mathematics 4.5
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacy

## Major requirements for Automotive Technology（83．0 credit hrs．）

Courses
AUTT 1010
Introduction to Auto Service and Minor
AUTT 1210
AUTT 1220
air

AUTT 1240
AUTT 1240

AUTT 1320
AUTT 1330
AUTT 1510
AUTT 1520
AUTT 1620
AUTT 1630
AUTT 1710
AUTT 1720
AUTT 1730
AUTT 2310
AUTT 2410
AUTT 2420
AUTT 2430
AUTT 2810
AUTT 2815
AUTT 2830
AUTT 2840
AUTT 2845
AUTT 2981
WELD 1261

## Automotive Advising Tips

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## Automotive Technology－Basic Automotive Service（AUTC1）

Award：Certificate of achievement
Program location：South Omaha Campus
This certificate of achievement provides students with the skills and knowledge necessary for entry－level positions in the automotive field．This program helps students develop skills in diagnosing and repairing common tune－up problems． The program presents the fundamentals of automotive systems and emphasizes 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
English level I
4.5

See Communications course options（p．25）
Humanities／social sciences
Humanities／social sciences
4.5

See Humanities／social sciences course options（p．25）
Quantitative
MATH $1240 \quad$ Applied Mathematics 4.5

## Major requirements for Automotive Technology－Basic Automotive Service（36．0 credit hrs．）

## Courses

AUTT $1010 \quad$ Introduction to Auto Service and Minor 3.0
AUTT $1210 \quad$ Automotive Electricity and Electronics 1 『 3.0
AUTT 1220 Automotive Electricity and Electronics II 『 3.0
AUTT $1230 \quad$ Automotive Electricity and Electronics III® 3.0
AUTT 1240 Automotive Electricity and Electronics IV® 3.0
AUTT $1310 \quad$ Powertrain Repair 1 © 3.0
AUTT 1320 Powertrain Repair II® 3.0
AUTT 1330 Powertrain Repair IIIه 3.0
AUTT $1510 \quad$ Brake Repair l® 3.0
AUTT 1520 Brake Repair II® 3.0
AUTT $1620 \quad$ Heating and Air Conditioning 1 © 3.0
AUTT $1630 \quad$ Heating and Air Conditioning II® 3.0
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 Electronics（AAESD）

Award：Career certificate
Program location：South Omaha Campus
This career certificate enables students 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 career certificate（ 24.0 credit hrs．）

Courses
AUTT $1010 \quad$ Introduction to Auto Service and Minor 3.0
AUTT $1210 \quad$ Automotive Electricity and Electronics © 3.0
AUTT 1220 Automotive Electricity and Electronics II® 3.0
AUTT 1230 Automotive Electricity and Electronics III® 3.0
AUTT 1240 Automotive Electricity and Electronics IV® 3.0
AUTT $1310 \quad$ Powertrain Repair 1 © 3.0
AUTT 2410 Engine Performance l® 3.0
AUTT 2420 Engine Performance Il『 3.0

## Automotive Transmissions and Transaxles (ATTSD)

Award: Career certificate

## Program location: South Omaha Campus

This career certificate enables students to remove and install a manual and an automatic transmission, replace a clutch, take oil pressure readings, make internal measurements and adjustments, and diagnose common problems associated with drivetrain repair.

## Requirements for Automotive Transmissions and

 Transaxles career certificate ( 39.0 credit hrs.)
## Courses

AUTT 1010

| Introduction to Auto Service and Minor Repair© | 3.0 |
| :---: | :---: |
| Automotive Electricity and Electronics ${ }_{\text {© }}$ | 3.0 |
| Automotive Electricity and Electronics II® | 3.0 |
| Automotive Electricity and Electronics III® | 3.0 |
| Automotive Electricity and Electronics IV® | 3.0 |
| Powertrain Repair ${ }^{\text {® }}$ | 3.0 |
| Powertrain Repair II® | 3.0 |
| Powertrain Repair III® | 3.0 |
| Manual Transmission Repair I® | 3.0 |
| Manual Transmission Repair II® | 3.0 |
| Automatic Transmission Repair I® | 3.0 |
| Automatic Transmission Repair II® | 3.0 |
| Automatic Transmission Repair III® | 3.0 |

## Automotive Brakes and Suspension (ABSSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enables students 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 career certificate ( 27.0 credit hrs.)

## Courses

AUTT $1010 \quad$ Introduction to Auto Service and Minor 3.0
AUTT $1210 \quad$ Automotive Electricity and Electronics l® 3.0
AUTT 1220 Automotive Electricity and Electronics II® 3.0
AUTT 1230 Automotive Electricity and Electronics III® 3.0
AUTT $1310 \quad$ Powertrain Repair I $\quad 3.0$
AUTT $1320 \quad$ Powertrain Repair II® 3.0
AUTT $1510 \quad$ Brake Repair 1 © 3.0
AUTT $1520 \quad$ Brake Repair II® 3.0
AUTT 2310 Suspension Systems® 3.0

## Civil Engineering Technology

The Civil Engineering Technology program prepares students for employment in the civil engineering field as civil engineering technicians. Civil engineering technology is one of the broadest fields in engineering because it is involved with many facets of infrastructure, including roads, bridges, utilities, buildings, and water treatment facilities. The Civil Engineering Technology program offers training in high-tech subjects and equipment like GPS satellite surveying and CAD drafting facilities.

## Degree: Associate in Applied Science

Civil Engineering Technology

- Building Construction Technology option
- Land Development Technology option
- Surveying Technology option


## Certificate of Achievement: <br> Civil Engineering Technology <br> Career Certificate:

Surveying
Computer-Aided Drafting and Design

## Civil Engineering Technology (CEAA1)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
This degree emphasizes the skills necessary for graduates seeking employment in civil engineering occupations. The program emphasizes the related use of computers and software. The degree provides a strong foundation in current basic civil engineering techniques and prepares students for occupational entry and advancement as a civil engineering technician. Graduates are readily employed as engineering technicians in construction, transportation, surveying, and testing laboratories.

## Graduation Requirements

| General education | 27.0 |  |
| :--- | :---: | :--- |
| Major requirements | 62.5 |  |
| Option requirements | $13.5-19.5$ |  |
| Total credit hours required | $103.0-109.0$ |  |
| General education requirements (27 credit hrs.) |  |  |
| Communications |  |  |
|  | English level I | 4.5 |
|  | English level II | 4.5 |

See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/Numeracy Skills
MATH $1310 \quad$ Intermediate Algebra -3.5
Other
HMRL 1010 Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for Civil Engineering Technology ( 62.5 credit hrs.)

Students interested in a Civil Engineering Technology option should consult with a faculty advisor.

| Courses |  |  |
| :--- | :--- | :--- |
| CHEM 1010 | College Chemistry | 6.0 |
| CHEM 1010L | College Chemistry Lab | 0.0 |
| MATH 1430 | Trigonometrys | 4.5 |
| PHYS 1010 | Applied Physics | 4.5 |
| PHYS 1010L | Applied Physics Lab | 0.0 |
| SCET 1000 | Civil Engineering Fundamentals | 3.0 |
| SCET 1040 | Introduction to Environmental Engineering | 3.0 |
| SCET 1060 | Engineering Geology | 3.0 |
| SCET 1090 | ArcGIS Fundamentals | 4.5 |
| SCET 1120 | AutoCAD Essentials | 9.0 |
| SCET 1150 | AutoCAD Civil 3-D | 9.0 |
| SCET 2010 | Fluid Mechanics | 4.0 |
| SCET 2300 | Structures I | 4.0 |
| SCET 2310 | Structures II | 4.0 |
| SCET 2320 | Structures III | 4.0 |

## Option requirements for Civil Engineering Technology (13.5-19.5 credit hrs.)

The Civil Engineering Technology options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

## Building Construction Technology (17.5 credit hrs.)

Civil Engineering Technology - Building Construction Technology (CEBCO) (p. 39)

Land Development Technology ( 13.5 credit hrs.)
Civil Engineering Technology - Land Development Technology (CELDO) (p. 39)
Surveying Technology ( 19.5 credit hrs.)
Civil Engineering Technology - Surveying Technology (CESTO) (p. 39)
Civil Engineering Technology - Building Construction Technology (CEBCO)
Award: Associate in applied science degree Program location: Elkhorn Valley Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the field of building construction technology.

## Graduation Requirements

| General education | 27.0 |
| :--- | ---: |
| Major requirements | 62.5 |
| Option requirements | 17.5 |
| Total credit hours required | 107.0 |

## General education requirements

See General education requirements for Civil Engineering Technology (p. 38)

## Major requirements for Civil Engineering Technology

 See Major requirements for Civil Engineering Technology (p. 38)Option requirements for Civil Engineering Technology - Building Construction Technology ( 17.5 credit hrs.)

## Courses

SCET $1050 \quad$ Building Construction 3.0
SCET $1070 \quad$ Contracts and Specifications 3.0
SCET $1080 \quad$ Estimating Construction Costs 3.0
SCET $1130 \quad$ Beginning REVIT (Structure) 4.0
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Civil Engineering Technology - Land Development Technology (CELDO)

Award: Associate in applied science degree Program location: Elkhorn Valley Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the field of land development technology.

## Graduation Requirements

General education 27.0
Major requirements 62.5
Option requirements 13.5
Total credit hours required 103.0

## General education requirements

See General education requirements for Civil Engineering Technology (p. 38)

Major requirements for Civil Engineering Technology
See Major requirements for Civil Engineering Technology (p. 38)

| Option requirements for Civil Engineering Technology <br> - Land Development Technology ( 13.5 credit hrs.) |  |  |
| :---: | :---: | :---: |
| Courses |  |  |
| SCET 1030 | Project Management | 4.5 |
| SCET 2410 | Civil Site Design | 4.5 |
| SCET 2420 | Roadway Design | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Civil Engineering Technology - Surveying Technology (CESTO)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the field of surveying technology.

## Graduation Requirements

General education 27.0
Major requirements 62.5
Option requirements 19.5
Total credit hours required 109.0

## General education requirements

See General education requirements for Civil Engineering Technology (p. 38)
Major requirements for Civil Engineering Technology
See Major requirements for Civil Engineering Technology (p. 38)

## Option requirements for Civil Engineering Technology

 - Surveying Technology ( 19.5 credit hrs.)
## Courses

SCET 1200 Surveying Fundamentals 6.5
SCET $2220 \quad$ Transit and Traverse Surveying $\quad 6.5$
SCET $2240 \quad$ Mapping, Staking, and GPS 6.5
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Civil Engineering Technology (CETCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This certificate of achievement prepares students to enter a variety of civil engineering occupations at the earliest possible time. It provides basic skills and prepares graduates to seek entry-level positions. Note: This certificate of achievement leads to a degree in general studies.

## Graduation Requirements

General education 13.5
Major requirements 39.5
Total credit hours required 53.0
General education requirements ( 13.5 credit hrs.)
The general education requirements for this certificate program exceed the minimum standard number of hours. For more information, contact Student Services.

Communications

## Quantitative/numeracy skills

## MATH 1430 Trigonometry <br> 4.5

Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25). Additional prerequisite(s) may be required.

## Major requirements for Civil Engineering Technology ( 39.5 credit hrs.)

## Courses

PHYS $1010 \quad$ Applied Physics 4.5
SCET $1000 \quad$ Civil Engineering Fundamentals 3.0
SCET $1050 \quad$ Building Construction 3.0
SCET $1060 \quad$ Engineering Geology 3.0
SCET $1070 \quad$ Contracts and Specifications 3.0
SCET $1080 \quad$ Estimating Construction Costs 3.0
SCET $1090 \quad$ ArcGIS Fundamentals 4.5
SCET $1120 \quad$ AutoCAD Essentials 9.0
SCET $1200 \quad$ Surveying Fundamentals 6.5

## Surveying (CESSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides 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 career certificate (28.5 credit hrs.)

## Courses

SCET $1120 \quad$ AutoCAD Essentials 9.0
SCET $1200 \quad$ Surveying Fundamentals 6.5
SCET $2220 \quad$ Transit and Traverse Surveying 6.5
SCET $2240 \quad$ Mapping, Staking, and GPS 6.5
SCET 1200, SCET 2240: additional prerequisite(s) may be required.

## Computer-Aided Drafting and Design (DDDSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides career preparation in engineering drafting and design practices. Recipients may seek employment in engineering drafting and design entry-level positions in engineering, architecture and design firms, and government agencies.

## Requirements for Computer-Aided Drafting and Design career certificate ( 26.5 credit hrs.)

## Courses

SCET $1120 \quad$ AutoCAD Essentials 9.0
SCET $1130 \quad$ Beginning REVIT (Structure) 4.0
SCET 1150 AutoCAD Civil 3-D 9.0
ARCH $1120 \quad$ Beginning REVIT (Building) 4.5

## Construction and Building Science

The Construction and Building Science program offers students a wide array of choices in the field of construction. An associate degree, certificate of achievement, and career certificate are available across several options, including concrete/masonry, general, residential, commercial, management, remodeling, and finish/cabinetry. Students gain practical experience in a lab setting applying their skills to real world situations.
Degree: Associate in Applied Science
Construction and Building Science
Commercial Construction
Concrete/Masonry Construction
Construction Management
General Construction/Remodeling
Residential Carpentry
Residential Finish Carpentry/Cabinetry
Certificate of Achievement:
Concrete and Masonry Specialist
Framing and Finishing Specialist
Career Certificate:
Cabinetry Construction
Commercial Construction
Construction Management
General Construction/Remodeling
Masonry and Concrete Construction
Residential Carpentry
Residential Finish Carpentry
Home Energy Professional (Weatherization)
Solar Air Systems
Solar Technology

## Construction and Building Science (CBAAS)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
Construction technology is a growing and diverse field. This degree 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 | 18.5 |
| Option requirements | $51.5-59.0$ |
| Total credit hours required | $97.0-104.5$ |
|  |  |
| General education requirements (27.0 credit hrs.) |  |
| Communications |  |
|  | English level I |
|  | English level II |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended but may not transfer.
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended but may not transfer.
Quantitative/numeracy skills Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended but may not transfer.
Other
HMRL $1010 \quad$ Human Relations Skills $\uparrow$ • 4.5
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for Construction and Building Science (18.5 credit hrs.)

Students interested in a Construction Technology option should consult with faculty or Student Services when planning their studies.

## Courses

CNST $1000 \quad$ Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light Commercial 3.5
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $2050 \quad$ Builders Level, Transit, and Building Layout 3.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Option requirements for Construction and Building Science (51.5-59.0 credit hrs.)

The Construction Technology degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Commercial Construction ( 56.5 credit hrs.)
Construction and Building Science - Commercial Construction (CBCCO) (p. 41)
Concrete/Masonry Construction (57.5 credit hrs.)
Construction and Building Science - Concrete/Masonry Construction (CBMCO) (p. 41)

Construction Management ( 59.0 credit hrs.)
Construction and Building Science - Construction Management (CBCMO) (p. 42)
General Construction/Remodeling ( 57.5 credit hrs.)
Construction and Building Science - General Construction/Remodeling (CBGCO) (p. 42)

Residential Carpentry ( 51.5 credit hrs.)
Construction and Building Science - Residential Carpentry (CBRCO) (p. 42)
Residential Finish Carpentry/Cabinetry ( 56.5 credit hrs.)
Construction and Building Science - Residential Finish Carpentry/Cabinetry (CBRFO) (p. 43)

## Construction and Building Science Commercial Construction (CBCCO)

Award: Associate in applied science degree Program location: Applied Technology Center, South Omaha Campus This degree option provides students with knowledge and entry-level skills desirable for success in the field of commercial construction.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 18.5 |
| Option requirements | 50.0 |
| Electives | 6.5 |
| Total credit hours required | 102.0 |
| General education requirements |  |
| See General education requirements for Construction and Building Science (p. |  |
| 40) |  |

## Major requirements for Construction and Building Science

See Major requirements for Construction and Building Science (p. 40)

## Option requirements for Construction and Building

 Science - Commercial Construction ( 50.0 credit hrs.)
## Courses

CNST $1015 \quad$ Print Reading III - Commercial 3.5
CNST $1070 \quad 3.5$
CNST $1255 \quad$ Commercial Framing 6.5
CNST 1262 Cabinet Design, Manufacturing, and 9.0
CNST $1355 \quad$ Commercial Finish $\quad 6.5$
CNST $1500 \quad$ Introduction to Concrete 6.5
CNST $1510 \quad$ Concrete and Wall Forms 6.5
CNST 2981 Internship variable

## Electives for Construction and Building Science Commercial Construction ( 6.5 credit hrs.)

## Courses

Select 6.5 credit hours from the following subjects:
ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Construction and Building Science Concrete/Masonry Construction (CBMCO)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the field of masonry construction.

Graduation Requirements
General education 27.0
Major requirements 18.5
Option requirements 51.0
Electives 6.5
Total credit hours required 103.0

## General education requirements

See General education requirements for Construction and Building Science (p. 40)

## Major requirements for Construction and Building Science

See Major requirements for Construction and Building Science (p. 40)
Option requirements for Construction and Building Science - Concrete/Masonry Construction ( 51.0 credit hrs.)
Courses
CNST $1015 \quad$ Print Reading III - Commercial 3.5
CNST $1070 \quad$ EIFS and Stucco Finish 3.5
CNST 1400 Introduction to Masonry 6.5
CNST $1410 \quad$ Advanced Masonry Construction 6.5
CNST 1500 Introduction to Concrete 6.5
CNST $1510 \quad$ Concrete and Wall Forms 6.5
CNST $2130 \quad$ Construction Estimating 7.0
CNST 2981 Internship variable
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0

[^1]
## Construction and Building Science Construction Management (CBCMO)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
This degree option provides students with knowledge and entry-level skills desirable for construction entrepreneurship and supervision of a variety of construction projects. Students entering this option should have four years of minimum field experience or a formal degree in the area of construction.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 18.5 |
| Option requirements | 52.5 |
| Electives | 6.5 |
| Total credit hours required | 104.5 |

## General education requirements

See General education requirements for Construction and Building Science (p. 40)

## Major requirements for Construction and Building Science

See Major requirements for Construction and Building Science (p. 40)
Option requirements for Construction and Building Science - Construction Management (52.5 credit hrs.)

## Courses

CNST $1015 \quad$ Print Reading III - Commercial 3.5
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
CNST $1400 \quad$ Introduction to Masonry 6.5
CNST $1500 \quad$ Introduction to Concrete 6.5
CNST $1510 \quad$ Concrete and Wall Forms 6.5
CNST $2130 \quad$ Construction Estimating 7.0
CNST 2140 Job Site Management 4.5
CNST 2150 Construction Law 3.5
CNST 2981 Internship variable

## Electives for Construction and Building Science -

 Construction Management ( 6.5 credit hrs.)
## Courses

Select 6.5 credit hours from the following subjects:
ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Construction and Building Science - General Construction/Remodeling (CBGCO)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
This degree option provides students 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 | 18.5 |
| Option requirements | 51.0 |
| Electives | 6.5 |
| Total credit hours required | $\mathbf{1 0 3 . 0}$ |

## General education requirements

See General education requirements for Construction and Building Science ( p . 40)

## Major requirements for Construction and Building

 ScienceSee Major requirements for Construction and Building Science (p. 40)

## Option requirements for Construction and Building Science - General Construction/Remodeling (51.0 credit hrs.)

Courses
CNST $1070 \quad$ EIFS and Stucco Finish 3.5
CNST 1220 Remodeling and Deconstruction 6.5
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
CNST 1400 Introduction to Masonry 6.5
CNST $1500 \quad$ Introduction to Concrete 6.5
CNST 2130 Construction Estimating 7.0
CNST 2360 Roof Framing 6.5
CNST 2981 Internship variable

## Electives for Construction and Building Science General Construction/Remodeling ( 6.5 credit hrs.) <br> Courses <br> Select 6.5 credit hours from the following subjects: <br> ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, <br> HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK. <br> The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Construction and Building Science - Residential Carpentry (CBRCO)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the residential field of carpentry.

## Graduation Requirements

General education 27.0
Major requirements 18.5
Option requirements 44.0
Electives 7.5
Total credit hours required 97.0

## General education requirements

See General education requirements for Construction and Building Science (p. 40)

## Major requirements for Construction and Building Science

See Major requirements for Construction and Building Science (p. 40)
Option requirements for Construction and Building Science - Residential Carpentry ( 44.0 credit hrs.)

## Courses

CNST 1220 Remodeling and Deconstruction 6.5
CNST $1250 \quad$ Interior Finish 6.5
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
CNST $1370 \quad$ Exterior Finish 6.5
CNST $2360 \quad$ Roof Framing 6.5
CNST 2380 Stair Construction 3.5
CNST 2981 Internship variable

## Electives for Construction and Building Science Residential Carpentry ( 7.5 credit hrs.) <br> Courses <br> Select 7.5 credit hours from the following subjects: <br> ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK. <br> The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Construction and Building Science - Residential Finish Carpentry/Cabinetry (CBRFO)

Award: Associate in applied science degree
Program location: Applied Technology Center, South Omaha Campus
This degree option provides students with knowledge and entry-level skills desirable for success in the residential field of carpentry and cabinetry.

\section*{Graduation Requirements <br> | General education | 27.0 |
| :--- | :--- |
| Major requirements | 18.5 |
| Option requirements | 53.5 |
| Electives | 3.0 |
| Total credit hours required | 102.0 |
| General education requirements |  |
| See General education requirements for Construction and Building Science (p. |  |
| 40 ) |  |}

## Major requirements for Construction and Building Science

See Major requirements for Construction and Building Science (p. 40)

## Option requirements for Construction and Building Science - Residential Finish Carpentry/Cabinetry (53.5 credit hrs.)

## Courses

CNST $1070 \quad$ EIFS and Stucco Finish 3.5
CNST 1220 Remodeling and Deconstruction 6.5
CNST $1250 \quad$ Interior Finish 6.5
CNST $1262 \quad$ Cabinet Design, Manufacturing, and Assembly 9.0
CNST $1270 \quad$ General Painting, Staining, and Cabinet Finishing 3.0
CNST $1370 \quad$ Exterior Finish 6.5
CNST $2130 \quad$ Construction Estimating 7.0
CNST 2380 Stair Construction 3.5
CNST 2981 Internship Variable

## Electives for Construction and Building Science Residential Finish Carpentry/Cabinetry ( 3.0 credit hrs.)

 CoursesSelect 3.0 credit hours from the following subjects:
ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Construction and Building Science - Concrete and Masonry Specialist (CBMCE)

Award: Certificate of achievement
Program location: Applied Technology Center, South Omaha Campus
This certificate of achievement provides basic skills in the concrete and masonry trade. Students acquire knowledge and skills needed for an entry-level position in concrete and masonry. This certificate leaves students 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
English level I
See Communications course options (p. 25)
ENGL 1220 is recommended but may not transfer.
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended but may not transfer.
Quantitative/numeracy skills
Mathematics
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended but may not transfer.
Major requirements for Construction and Building Science - Concrete and Masonry Specialist (40.0 credit hrs.)
Courses
CNST 1000 Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
Commercial
CNST $1070 \quad$ EIFS and Stucco Finish 3.5
CNST $1400 \quad$ Introduction to Masonry 6.5
CNST $1410 \quad$ Advanced Masonry Construction 6.5
CNST 1500 Introduction to Concrete 6.5
CNST $1510 \quad$ Concrete and Wall Forms 6.5
CNST $2050 \quad$ Builders Level, Transit, and Building Layout $\quad 3.5$

## Construction and Building Science - Framing and Finishing Specialist (CBFCE)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement provides basic framing and finishing skills using measuring devices and teaches the application of hand and power tools. Graduates are 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

English level I
See Communications course options (p. 25)
ENGL 1220 is recommended but may not transfer.

## Humanities/social sciences

Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended but may not transfer.

## Quantitative/numeracy skills

Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended but may not transfer.
Major requirements for Construction and Building Science - Framing and Finishing Specialist ( 36.5 credit hrs.)
Courses
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
CNST $1250 \quad$ Interior Finish 6.5
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
CNST $1370 \quad$ Exterior Finish 6.5
CNST $2050 \quad$ Builders Level, Transit, and Building Layout 3.5
CNST 2360 Roof Framing 6.5
CNST 2380 Stair Construction 3.5

## Cabinetry Construction (CCCSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate supplies students with knowledge and skills required for entry-level employment in the cabinet- and furniture-making industries. Students 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 Construction career certificate ( 30.0 credit hrs.)

## Courses

CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST 1250 Interior Finish 6.5
CNST 1262 Cabinet Design, Manufacturing, and 9.0
CNST $1270 \quad$ General Painting, Staining, and Cabinet 3.0
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Commercial Construction (CCOSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate is for students who have the desire or need to enter the field of commercial construction as soon as possible. Students partake in classroom and practical application exercises, which supply them with knowledge and skills in the construction management area. A 30-hour OSHA construction safety certification is included.

## Requirements for Commercial Construction career certificate (31.5 credit hrs.)

Courses
CNST 1000 Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
Print Reading II - Residentia/Light
Commercial
CNST $1015 \quad$ Print Reading III - Commercial 3.5
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST 1255 Commercial Framing 6.5
CNST $1510 \quad$ Concrete and Wall Forms $\quad 6.5$
CNST 2100 Construction Safety (30-Hour) 4.5

## Construction Management (CCMSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate is for well-seasoned craft workers who have six years or more experience and the desire or need for skills required to move into the area of supervision. Students partake in classroom and practical application exercises, which supply them with knowledge and skills in the construction management area. A 30 -hour OSHA construction safety certification is included.

## Requirements for Construction Management career certificate ( 30.0 credit hrs.)

Courses
CNST $1000 \quad$ Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
Commercial
CNST $1015 \quad$ Print Reading III - Commercial 3.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5
CNST $2130 \quad$ Construction Estimating 7.0
CNST 2140 Job Site Management 4.5
CNST 2150 Construction Law 3.5
CNST 2140: additional prerequisite(s) may be required.

## General Construction/Remodeling (CCRSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate assists practicing small contractors and remodelers as well as those seeking knowledge and skills for entry-level employment in this area. It is for those who wish to obtain knowledge in code compliance, understanding of OSHA safety requirements, and expanded knowledge of materials and their proper use.

## Requirements for General Construction/Remodeling career certificate ( 28.0 credit hrs.)

Courses
CNST $1000 \quad$ Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
Commercial
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $1220 \quad$ Remodeling and Deconstruction 6.5
CNST 1250 Interior Finish 6.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Masonry and Concrete Construction (CMCSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate supplies students with knowledge and skills to begin a career in masonry as well as supplies seasoned masons with advanced skills. Included are materials and testing, bonding and layout, advanced arch work, and a 30-hour OSHA construction safety certification.

## Requirements for Masonry and Concrete career certificate ( 30.5 credit hrs.) <br> Courses <br> CNST $1050 \quad$ Introduction to Carpentry 3.5 <br> CNST $1400 \quad$ Introduction to Masonry 6.5 <br> CNST $1410 \quad$ Advanced Masonry Construction 6.5 <br> CNST $1500 \quad$ Introduction to Concrete 6.5 <br> CNST $2100 \quad$ Construction Safety (30-Hour) 4.5 <br> WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0

## Residential Carpentry (CRCSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate is for students who have the desire or need to enter the field of residential carpentry as soon as possible. Students partake in classroom and practical application exercises, which supply them with knowledge and skills in the residential carpentry area. A 30-hour OSHA construction safety certification is included.

## Requirements for Residential Carpentry career certificate ( 28.0 credit hrs.)

## Courses

CNST $1000 \quad$ Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
CNST $1370 \quad$ Exterior Finish 6.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Residential Finish Carpentry (CRFSD)

Award: Career certificate
Program location: Applied Technology Center, South Omaha Campus
This career certificate is for students who have the desire or need to enter the field of residential finish carpentry as soon as possible. Students partake in classroom and practical application exercises, which supply them with knowledge and skills in the residential finish carpentry area. A 30-hour OSHA construction safety certification is included.

## Requirements for Residential Finish Carpentry career certificate ( 28.0 credit hrs.)

## Courses

CNST $1000 \quad$ Introduction to Building Construction 3.5
CNST $1010 \quad$ Print Reading II - Residential/Light 3.5
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $1250 \quad$ Interior Finish 6.5
CNST $1370 \quad$ Exterior Finish 6.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Home Energy Professional [Weatherization] (CHECC)

## Award: Career certificate

Program location: Applied Technology Center, South Omaha Campus
This career certificate provides students with the skills and techniques necessary to diagnose and prioritize energy-saving projects in a residence. Students learn how to complete home energy upgrade improvements such as insulation and air sealing, also known as weatherization, as well as how to complete an industryaccepted home energy evaluation. Students receive safety training as outlined by OSHA and the Department of Energy. Students are also prepared to take industry certification exams such as National Home Energy Professional and BPI certifications. NOTE: SNRG courses do not count toward CNST degrees; this career certificate leads to a general studies degree.

## Requirements for Home Energy Professional [Weatherization] career certificate ( 26.0 credit hrs.)

Courses
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $1080 \quad$ Healthy Homes Foundations 1.0
CNST $1110 \quad$ Construction Safety (10-Hour) 1.0
INCT 1020 Lead Safe Practices I 1.0
SNRG $1120 \quad$ Weatherization Installer Fundamentals 4.0
SNRG $1121 \quad$ Weatherization Installer Intermediate 4.0
SNRG $1124 \quad$ Weatherization Installer - Mobile Homes 3.0
SNRG 1125 Combustion Appliance Zone (CAZ) Training 1.5
SNRG $1126 \quad$ Weatherization Crew Chief 2.5
SNRG $1130 \quad 4.5$

## Solar Air Systems (SASSD)

Award: Career certificate
Program location: Fort Omaha Campus, South Omaha Campus
This career certificate provides students with the information and skills needed for the installation and maintenance of solar air systems. NOTE: SNRG courses do not count toward CNST degrees; this career certificate leads to a general studies degree.

## Requirements for Solar Air Systems career certificate (24.5 credit hrs.)

## Courses

CNST $1010 \quad 3.5$
CNST 1050 Introduction to Carpentry 3.5
CNST $1110 \quad$ Construction Safety (10-Hour) 1.0
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
SNRG $1240 \quad$ Solar Air Systems Design 4.5
SNRG 1250 Solar Air Install - Overview 1.0
SNRG 1251 Solar Air Install 1 - Collectors 1.5
SNRG $1252 \quad$ Solar Air Install 2 - Ventilation 1.5
SNRG $1253 \quad 1.5$

## Solar Technology (STSSD)

Award: Career certificate
Program location: Fort Omaha Campus, South Omaha Campus
This career certificate teaches construction design and use of solar air, water, and electric systems. NOTE: SNRG courses do not count toward CNST degrees; this career certificate leads to a general studies degree.

Requirements for Solar Technology career certificate (24.0 credit hrs.)

## Courses

CNST $1110 \quad$ Construction Safety (10-Hour) 1.0
SNRG $1220 \quad$ Solar Electric Systems Design 4.5
Select one course from the following:
SNRG $1240 \quad$ Solar Air Systems Design 4.5
SNRG $1260 \quad$ Solar Water Systems Design 4.5
SNRG 1265 Solar Hydronic Systems 4.5
Select a minimum of three courses from the following:
$\begin{array}{ll}\text { SNRG } 1231 & \text { Solar Electric Install 1-Modules }\end{array}$
SNRG $1232 \quad$ Solar Electric Install 2 - Grid Tie 1.5
SNRG 1233 Solar Electric Install 3-Off Grid 1.5
SNRG $1251 \quad$ Solar Air Install 1 - Collectors 1.5
SNRG $1252 \quad$ Solar Air Install 2 - Ventilation 1.5
SNRG $1253 \quad$ Solar Air Install 3 - Blower 1.5
SNRG $1271 \quad$ Solar Water Install 1 - Panels 1.5
SNRG $1272 \quad$ Solar Water Install 2 - Storage 1.5
SNRG $1273 \quad$ Solar Water Install 3 - Piping 1.5
Select at least 9.5 credit hours from the following:
CNST $1010 \quad$ Print Reading II - Residential/Light
$\begin{array}{lll} & \begin{array}{l}\text { Commercial } \\ \text { Introduction to Carpentry }\end{array} & 3.5 \\ \text { CNST } 1050 & \text { Insis }\end{array}$
CNST $1350 \quad$ Floor, Wall, and Ceiling Framing 6.5
ELTR $1200 \quad$ Basic Electricity 6.5
HVAC $1000 \quad$ Refrigeration Electrical Theory and 6.0
HVAC $1210 \quad$ Gas Heat 3.0
HVAC $1211 \quad$ Electric Heat 3.0
HVAC $2220 \quad$ All-Weather Systems (Heat Pumps) 3.0
INCT $2050 \quad$ Problem-Solving 3.0
PLAP $1110 \quad$ Plumbing IA 7.0
PLAP $1120 \quad$ Plumbing IB 7.0
SNRG $1212 \quad$ Solar Electric Seminar 1.0
SNRG 1213 Solar Thermal Seminar 1.0
SNRG 1230 Solar Electric Install - Overview 1.0
SNRG $1250 \quad$ Solar Air Install - Overview 1.0
SNRG $1270 \quad$ Solar Water Installation - Overview 1.0

## Diesel Technology

The Diesel Technology program prepares students for a career in the growing transportation industry. Using the latest equipment and technologies, the curriculum is built upon a foundation that includes the fundamentals of compression ignited internal combustion engines and their variations, shop safety, shop operations, brakes, drive trains, suspension, steering, electrical/electronic systems, and heat/air conditioning. The curriculum addresses the latest technology in engine repair, hydraulic and electrical systems, test procedures and diagnostics, and power generation. The internship courses provide opportunities to interact with industry in real-world scenarios, building confidence and skills needed to succeed.

Degree: Associate in Applied Science
Diesel Technology
Diesel Service
Heavy Equipment
Power Generation
Career Certificate:
CDL-A Truck Driving
Diesel/Automotive Parts Sales
Diesel Truck

## Diesel Technology (DTAAS)

Award: Associate in applied science degree
Program location: Applied Technology Center
This degree prepares students for a career in the growing transportation industry. Students 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 | 34.0 |
| Option requirements | $37.0-42.0$ |
| Total credit hours required | $\mathbf{9 8 . 0 - 1 0 3 . 0}$ |

## General education requirements ( 27.0 credit hrs.)

Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

## Humanities/social sciences

Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended.
Quantitative/numeracy skills
Mathematics or Financial Literacy
4.5

See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $s \ominus$ © 4.5
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for Diesel Technology ( 34.0 credit hrs.)

Courses
DESL $1000 \quad$ Diesel Preventive Maintenance 3.0
DESL 1110 Diesel Engine Fuel Systems 3.0
DESL $1210 \quad$ Electricity and Electronics 6.0
DESL $1230 \quad$ Diesel Engine Fundamentals 4.0
DESL $1301 \quad$ CDL for Diesel Technicians I 2.5
DESL $1302 \quad$ CDL for Diesel Technicians II 1.5
DESL 2210 Diesel Engine Controls 3.0
DESL 2220 Diesel Engine Diagnostics 4.0
DESL 2230 Diesel Engine Rebuild 4.0
DESL $2240 \quad$ Emissions and Maintenance 3.0

## Option requirements for Diesel Technology (37.0-42.0 credit hrs.)

The Diesel Technology Degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Diesel Service (38.0-41.0 credit hrs.)
Diesel Technology - Diesel Service (DTDSO) (p. 47)
Heavy Equipment (39.0-42.0 credit hrs.)
Diesel Technology - Heavy Equipment (DTHEO) (p. 47)
Power Generation (37.0-41.0 credit hrs.)
Diesel Technology - Power Generation (DTPGO) (p. 47)

## 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 degree provides students with the fundamentals needed for employment in the field of diesel service technology.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 34.0 |
| Option requirements | $38.0-41.0$ |
| Total credit hours required | $99.0-102.0$ |

## General education requirements

See General education requirements for Diesel Technology (p. 46)
Major requirements for Diesel Technology
See Major requirements for Diesel Technology (p. 46)
Option requirements for Diesel Technology - Diesel Service (38.0-41.0 credit hrs.)

## Courses

## DESL $1200 \quad$ Fundamentals of Hydraulics 3.0

DESL $1620 \quad$ Climate Control/Heating and Air Conditioning 4.0
DESL $2100 \quad$ Heavy Duty Drivetrain 4.0
DESL $2120 \quad$ Automatic and Automated Drivetrains 3.0
DESL $2150 \quad$ Truck ABS and Brakes 4.0
DESL $2200 \quad$ Steering and Suspension 4.0
DESL 2981 Diesel Internship I 8.0
DESL 2982 Diesel Internship II 8.0
WELD 1261 Combination Welding - Automotive 3.0
DESL 2120 is optional but recommended.
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 needs of students and employers.

## Diesel Technology - Heavy Equipment (DTHEO)

Award: Associate in applied science degree
Program location: Applied Technology Center
This degree option prepares students for a career in the heavy equipment, construction, and utility industries. This degree 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 | 34.0 |
| Option requirements | $39.0-42.0$ |

Total credit hours required $\quad 100.0-103.0$

## General education requirements

See General education requirements for Diesel Technology (p. 46)
Major requirements for Diesel Technology
See Major requirements for Diesel Technology (p. 46)
Option requirements for Diesel Technology - Heavy Equipment (39.0-42.0 credit hrs.)

## Courses

DESL 1200
Fundamentals of Hydraulics
3.0

DESL 1220
Advanced Diesel Hydraulics

DESL $1620 \quad$ Climate Control/Heating and Air Conditioning 4.0
DESL $2110 \quad$ Heavy Equipment Drivetrain 6.0
DESL $2120 \quad$ Automatic and Automated Drivetrains 3.0
DESL $2250 \quad$ Field Service Maintenance 6.0
DESL 2981 Diesel Internship I 8.0
WELD 1262 Quick Start 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
DESL 2120 is optional but recommended.

## Diesel Technology - Power Generation (DTPGO)

Award: Associate in applied science degree
Program location: Applied Technology Center
This degree option prepares students for a career in the growing diesel power generation field. This option is one of only a few nationally that allows students 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 34.0
Option requirements 37.0-41.0
Total credit hours required 98.0-102.0

## General education requirements

See General education requirements for Diesel Technology (p. 46)
Major requirements for Diesel Technology
See Major requirements for Diesel Technology (p. 46)

## Option requirements for Diesel Technology - Power

Generation (37.0-41.0 credit hrs.)

## Courses

DESL $1115 \quad$ Alternative Fueled Engines 3.0
DESL 2100 Heavy Duty Drivetrain 4.0
DESL $2215 \quad$ Diesel Generator Controls 3.0
DESL 2983 Diesel Internship III 4.0
DESL 2984 Diesel Internship IV 4.0
DESL $1040 \quad$ Generator Theory 6.0
DESL $2040 \quad$ Power Generator Applications 6.0
UTIL $1020 \quad$ Electricity 1 『 5.5
UTIL 2020 Transformer Theory® 5.5
DESL 2100 is optional but recommended.

## CDL-A Truck Driving (CDLSD)

Award: Career certificate
Program location: Applied Technology Center
This career certificate provides students with the knowledge and skills needed to obtain a CDL Class A truck driving license. With this license, graduates are able to apply for driving jobs in the trucking industry. NOTE: This career certificate leads to a general studies degree.

| Requirements for CDL-A Truck Driving career |  |  |
| :--- | :--- | ---: |
| certificate (31.5 credit hrs.) |  |  |
| Courses |  |  |
| DESL 1000 | Diesel Preventive Maintenance | 3.0 |
| DESL 1230 | Diesel Engine Fundamentals | 4.0 |
| DESL 1310 | Truck Driver CDL Training I | 8.5 |
| DESL 1320 | Truck Driver CDL Training II | 9.0 |
| DESL 2980 | On-the-Job Training/Work Externship | 6.0 |
| EMSP 1010 | Heartsaver First Aid with CPR and AED | 1.0 |
| EMSP 1010 is required for those who do not currently hold a valid CPR/first aid |  |  |
| card. |  |  |

## Diesel/Automotive Parts Sales (DTSCC)

Award: Career certificate
Program location: Applied Technology Center
This career certificate provides the knowledge and skills needed for an entry-level position in the transportation parts industry. The certificate provides students with fundamental instruction in the basic parts sales for diesel engines, brakes, suspension, electrical systems, and power trains. NOTE: This career certificate leads to general studies degree.

## Requirements for Diesel/Automotive Parts Sales career certificate ( $30.5-32.5$ credit hrs.)

## DESL Courses

DESL 1000 Diesel Preventive Maintenance 3.0
DESL $1050 \quad$ Diesel/Automotive Parts Sales 2.0
DESL $1230 \quad$ Diesel Engine Fundamentals 4.0
DESL 2200 Steering and Suspension 4.0
Elective
Select one of the following DESL courses:

| DESL 1210 | Electricity and Electronics | 6.0 |
| :--- | :--- | :--- |
| DESL 2100 | Heavy Duty Drivetrain | 4.0 |

DESL $2150 \quad$ Truck ABS and Brakes 4.0
BSAD Courses
Select 9.0 credit hours from the following:
BSAD 1000 Introduction to Business $\triangleleft$ ® 4.5

BSAD $1010 \quad$ Principles of Marketing -3.5
BSAD $1200 \quad$ Principles of Selling 4.5
BSAD $1201 \quad$ Advertising and Sales Promotion 4.5
BSAD 1210 Retailing 4.5

## SPCH Course

Select one of the following:

| SPCH 1110 | Public Speaking ${ }^{\text {® }}$ © | 4.5 |
| :---: | :---: | :---: |

SPCH $1220 \quad$ Communication in Small Groups 4.5
SPCH $1300 \quad$ Interpersonal Communication 4.5

## Diesel Truck (DDES1)

Award: Career certificate
Program location: Applied Technology Center
This career certificate provides the knowledge and skills needed for an entry-level position in the transportation industry. The career certificate provides students with fundamental instruction in the basic operation of diesel engines, service, brakes, electrical systems, and power trains.

## Requirements for Diesel Truck career certificate (32.035.0 credit hrs.)

## Courses

DESL $1000 \quad$ Diesel Preventive Maintenance 3.0
DESL $1210 \quad$ Electricity and Electronics 6.0
DESL $1230 \quad$ Diesel Engine Fundamentals 4.0
DESL $1620 \quad$ Climate Control/Heating and Air Conditioning 4.0
DESL $2100 \quad$ Heavy Duty Drivetrain 4.0
DESL $2120 \quad$ Automatic and Automated Drivetrains 3.0
DESL $2150 \quad$ Truck ABS and Brakes 4.0
DESL $2200 \quad$ Steering and Suspension 4.0
WELD $1261 \quad 3.0$
DESL 2120 is optional but recommended.

## Electrical Apprenticeship

The Electrical Apprenticeship program prepares students to become licensed electricians. The courses are offered on an evening schedule, 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 an electrical trade while taking classes. After completing the Electrical Apprenticeship program and the required on-the-job training (four years verifiable experience), students are prepared to take the examination for the Journeyman's Electrician License administered by the city of Omaha or the state of Nebraska.
Degree: Associate in Applied Science
Electrical Apprenticeship

## Electrical Apprenticeship (AREAO)

Award: Associate in applied science degree Program location: South Omaha Campus
This degree 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 an electrical trade while taking classes. For more information about this program, contact the apprenticeship coordinator 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

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.
Humanities/social sciences
Humanities/social sciences
4.5

See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended.
Quantitative/numeracy skills Mathematics
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\int$ • 4.5
INFO 1001 Information Systems and Literacy $\begin{aligned} & \text { © } 4.5\end{aligned}$
Major requirements for Electrical Apprenticeship (16.5 credit hrs.)
Courses
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5
ELTR $1350 \quad 3.0$
INCT $1212 \quad$ Motor and Machine Controls 9.0

## Apprenticeship requirements for Electrical Apprenticeship ( 56.0 credit hrs.)

| Courses |  |  |
| :--- | :--- | :--- |
| ELAP 1110 | Electrical IA | 7.0 |
| ELAP 1120 | Electrical IB | 7.0 |
| ELAP 1210 | Electrical IIA | 7.0 |
| ELAP 1220 | Electrical IIB | 7.0 |
| ELAP 2310 | Electrical IIIA | 7.0 |
| ELAP 2320 | Electrical IIIB | 7.0 |
| ELAP 2410 | Electrical IVA | 7.0 |
| ELAP 2420 | Electrical IVB | 7.0 |

## Electrical Technology

The Electrical Technology program provides education and training for students who wish to join the electrical field. Students entering into this program study electrical systems in residential wiring, commercial wiring, and industrial motor controls.
Degree: Associate in Applied Science
Electrical Technology
Certificate of Achievement:
Building Electrical
Career Certificate:
Residential Electrical
Solar Electric Systems

## Electrical Technology (ETAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree provides education and training for students who wish to join the electrical field. This program exposes students to electrical systems in residential and commercial wiring as well as industrial motor controls.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 72.0 |
| Total credit hours required | $\mathbf{9 9 . 0}$ |

General education requirements ( 27.0 credit hrs.)
Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

## Humanities/social sciences

Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended.
Quantitative/numeracy skills
Mathematics or Financial Literacy
4.5

See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\int$ • 4.5
INFO 1001 Information Systems and Literacy $\bullet$ © 4.5

## Major requirements for Electrical Technology (72.0 credit hrs.)

Courses

| ELTR 1200 | Basic Electricity | 6.5 |
| :--- | :--- | :--- |
| ELTR 1210 | Residential Wiring | 9.0 |
| ELTR 1220 | Commercial Wiring | 9.0 |
| ELTR 1350 | Electrical Print Reading | 3.0 |
| ELTR 2040 | Low-Voltage Applications | 6.5 |
| ELTR 2240 | National Electrical Code | 4.5 |
| ELTR 2331 | Electric Service and Installation | 4.5 |
| ELTR 2981 | Internship | 8.0 |
| CNST 2100 | Construction Safety (30-Hour) | 4.5 |
| INCT 1212 | Motor and Machine Controls | 9.0 |
| INCT 2050 | Problem-Solving | 3.0 |
| INCT 2231 | Programmable Logic Controllers I | 4.5 |

## Curriculum Plan

Electrical Technology - Traditional Track
Below is a suggested guide for students planning careers in electrical technology after two years of full-time study.

## First Year

| First quarter (Fall) |  |  |
| :---: | :---: | :---: |
| ELTR 1200 | Basic Electricity | 6.5 |
| MATH 1240 | Applied Mathematics | 4.5 |
| CNST 2100 | Construction Safety (30-Hour) | 4.5 |
| Second quarter (Winter) |  |  |
| INCT 2050 | Problem-Solving | 3.0 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |
| ELTR 1210 | Residential Wiring | 9.0 |
| Third quarter (Spring) |  |  |
| ELTR 1220 | Commercial Wiring | 9.0 |
| ENGL 1220 | Technical Writing ${ }^{\text {B }}$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| Fourth quarter (Summer) |  |  |
| ELTR 2981 | Internship | 8.0 |
| Second Year |  |  |
| Fifth quarter (Fall) |  |  |
| ELTR 1350 | Electrical Print Reading | 3.0 |
| ENGL 1240 | Oral and Written Reports* | 4.5 |
| INCT 1212 | Motor and Machine Controls | 9.0 |
| Sixth quarter (Winter) |  |  |
| ELTR 2040 | Low-Voltage Applications | 6.5 |
| ELTR 2331 | Electric Service and Installation | 4.5 |
| INCT 2231 | Programmable Logic Controllers I | 4.5 |
| Seventh quarter (Spring) |  |  |
| ELTR 2240 | National Electrical Code | 4.5 |
|  | Humanities/social sciences | 4.5 |

## Electrical Technology - Accelerated Track

Below is a suggested guide for students planning careers in electrical technology after one year of accelerated full-time study. In order to complete in one year, students entering the accelerated program must be at college English, reading, and math levels.

## First Year

| First quarter (Fall, first 5.5 weeks and 11 week general education) |  |  |
| :---: | :---: | :---: |
| ELTR 1200 | Basic Electricity | 6.5 |
| ENGL 1220 | Technical Writing ${ }^{\text {B }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ ( | 4.5 |
| First quarter (Fall, second 5.5 weeks) |  |  |
| ELTR 1210 | Residential Wiring | 9.0 |
| CNST 2100 | Construction Safety (30-Hour) | 4.5 |
| Second quarter (Winter, 11 weeks) |  |  |
| ELTR 1220 | Commercial Wiring | 9.0 |
| INCT 1212 | Motor and Machine Controls | 9.0 |
| ENGL 1240 | Oral and Written Reports $\checkmark$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |


| Second quarter (Winter, second 5.5 weeks) |  |  |
| :---: | :---: | :---: |
| ELTR 1350 | Electrical Print Reading | 3.0 |
| Third quarter (Spring, first 5.5 weeks and 11 week general education) |  |  |
| ELTR 2331 | Electric Service and Installation | 4.5 |
| INCT 2050 | Problem-Solving | 3.0 |
| INCT 2231 | Programmable Logic Controllers I | 4.5 |
| MATH 1240 | Applied Mathematics | 4.5 |
| PSYC 1000 | Psychology for Everyday Living | 4.5 |
| Third quarter (Spring, second 5.5 weeks) |  |  |
| ELTR 2240 | National Electrical Code | 4.5 |
| ELTR 2040 | Low-Voltage Applications | 6.5 |
| Fourth quarter (Summer, 10 weeks) |  |  |
| ELTR 2981 | Internship | 8.0 |

## Electrical Technology - Building Electrical (ETBCE)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement is for students who may work in the electrical field. Students gain knowledge of facilities and residential wiring.

## Graduation Requirements

| General education | 13.5 |
| :--- | :---: |
| Major requirements | 40.0 |
| Total credit hours required | 53.5 |

## General education requirements ( 13.5 credit hrs.)

Communications

ENGL $1220 \quad$ Technical Writing | ® | 4.5 |
| :--- | :--- |

Quantitative/numeracy skills
MATH $1240 \quad$ Applied Mathematics

Other
INFO 1001 Information Systems and Literacy ©

## Major requirements for Electrical Technology Building Electrical ( 40.0 credit hrs.)

## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$

ELTR $1210 \quad$ Residential Wiring 9.0
ELTR $1220 \quad$ Commercial Wiring 9.0
ELTR $2040 \quad$ Low-Voltage Applications 6.5
ELTR $2240 \quad$ National Electrical Code 4.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Residential Electrical (ETRS1)

Award: Career certificate
Program location: South Omaha Campus
This career certificate provides the minimum skills to get an entry-level job wiring residential homes.

## Requirements for Residential Electrical career certificate ( 31.0 credit hrs.)

## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
ELTR $1210 \quad$ Residential Wiring 9.0
ELTR $2040 \quad$ Low-Voltage Applications 6.5
ELTR $2240 \quad$ National Electrical Code 4.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5

## Solar Electric Systems (SESSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate provides students with the information and skills needed for the installation and maintenance of solar electric systems. NOTE: SNRG courses do not count toward ELTR/INCT degrees; this career certificate leads to a general studies degree.
Requirements for Solar Electric Systems career certificate ( 24.0 credit hrs.)
Courses
ELTR $1200 \quad$ Basic Electricity 6.5
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5
INCT $2050 \quad$ Problem-Solving 3.0
SNRG 1220 Solar Electric Systems Design 4.5
SNRG $1230 \quad$ Solar Electric Install - Overview 1.0
SNRG 1231 Solar Electric Install 1 - Modules 1.5
SNRG 1232 Solar Electric Install 2-Grid Tie 1.5
SNRG 1233 Solar Electric Install 3-Off Grid 1.5

## Heating, Air Conditioning, and Refrigeration

This program provides students with a diversified background in heating, air conditioning, and refrigeration systems. The program combines class work 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.

## Degree: Associate in Applied Science

Heating, Air Conditioning, and Refrigeration
Certificate of Achievement:
Heating, Air Conditioning, and Refrigeration
Career Certificate:
Air Conditioning
Heat Pump
Heat Systems
Refrigeration
Solar Heating Systems

## Heating, Air Conditioning, and Refrigeration Technology (HAAAS)

Award: Associate in applied science degree Program location: Elkhorn Valley Campus

This degree provides students with a diversified background in air conditioning refrigeration, and heating systems. The program combines class work with handson 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
English level I
4.5

English level II
4.5

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

## Humanities/social sciences

Humanities/social sciences 4.5
See Humanities/social sciences options (p. 25)
PSYC 1000 is recommended.
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5

## Major requirements for Heating, Air Conditioning, and Refrigeration Technology ( 70.0 credit hrs.)

## Courses

ACCT $1050 \quad$ Bookkeeping 3.0
HVAC $1000 \quad$ Refrigeration Electrical Theory and 6.0
HVAC $1010 \quad$ Refrigeration Service Principles and Basic 6.0
HVAC $1020 \quad$ Refrigeration Shop Practices 3.0
HVAC $1210 \quad$ Gas Heat 3.0
HVAC $1211 \quad$ Electric Heat 3.0
HVAC 1220 Oil Burners 3.0
HVAC 1330 Commercial Refrigeration Installation 3.0
HVAC $1331 \quad$ Commercial Refrigeration Service 3.0
HVAC 1500 Air Conditioning, Domestic Refrigeration, and 3.0
Appliance Repair
HVAC $1540 \quad$ All-Weather Systems (Conventional) 3.0
HVAC $2220 \quad$ All-Weather Systems (Heat Pumps) 3.0
HVAC $2221 \quad$ Installation and Service Problems 3.0
HVAC $2320 \quad$ Advanced Commercial Refrigeration 3.0
HVAC $2400 \quad$ Blueprint Reading for Air Conditioning 3.0
HVAC 2420 Advanced Residential Air Conditioning 3.0
HVAC $2421 \quad$ Advanced Commercial Air Conditioning 3.0
HVAC $2550 \quad$ Air Conditioning (Commercial) 3.0
HVAC 2560 Sheet Metal Layout 3.0
HVAC $2570 \quad$ Automated Building Controls 3.0
Select 4.0 credits of electives.

## Heating, Air Conditioning, and Refrigeration <br> Technology (HARCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This certificate of achievement provides students with practical experience in servicing and installing air conditioning, refrigeration, and heating equipment. Related instruction enables students 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
English level I
See Communications course options (p. 25)
Humanities/Social Sciences
Humanities/social sciences

## Quantitative/numeracy skills

Mathematics or Financial Literacy
4.5

See Quantitative/numeracy skills course options (p. 27)

| Major requirements for Heating, Air Conditioning and Refrigeration Technology ( 36.0 credit hrs.) |  |  |
| :---: | :---: | :---: |
| Courses |  |  |
| HVAC 1000 | Refrigeration Electrical Theory and Application | 6.0 |
| HVAC 1010 | Refrigeration Service Principles and Basic Automatic Controls | 6.0 |
| HVAC 1020 | Refrigeration Shop Practices | 3.0 |
| HVAC 1210 | Gas Heat | 3.0 |
| HVAC 1211 | Electric Heat | 3.0 |
| HVAC 1220 | Oil Burners | 3.0 |
| HVAC 1330 | Commercial Refrigeration Installation | 3.0 |
| HVAC 1331 | Commercial Refrigeration Service | 3.0 |
| HVAC 1500 | Air Conditioning, Domestic Refrigeration, and Appliance Repair | 3.0 |
| HVAC 1540 | All-Weather Systems (Conventional) | 3.0 |

## Air Conditioning (AACSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate enables students to troubleshoot, repair, and service various types of air conditioning systems. Students also explore electrical theory, blueprint reading, and heat loss/heat gain.

## Requirements for Air Conditioning career certificate ( 27.0 credit hrs.)

Courses
HVAC 1000 Refrigeration Electrical Theory and 6.0
HVAC $1210 \quad$ Gas Heat 3.0
HVAC $1540 \quad$ All-Weather Systems (Conventional) 3.0
HVAC $2220 \quad$ All-Weather Systems (Heat Pumps) 3.0
HVAC $2400 \quad$ Blueprint Reading for Air Conditioning 3.0
HVAC $2420 \quad$ Advanced Residential Air Conditioning 3.0
HVAC $2421 \quad$ Advanced Commercial Air Conditioning 3.0
HVAC $2550 \quad$ Air Conditioning (Commercial) 3.0

## Heat Pump (AHPSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate enables students to troubleshoot, service, and repair systems. Students have working knowledge of electric heat and gas heat used as back-up heat for the heat pump.

## Requirements for Heat Pump career certificate (24.0 credit hrs.)

Courses
HVAC 1000
Refrigeration Electrical Theory and
Application
HVAC $1010 \quad$ Refrigeration Service Principles and Basic 6.0
Automatic Controls
HVAC $1020 \quad$ Refrigeration Shop Practices 3.0
HVAC 1210 Gas Heat 3.0
HVAC $1211 \quad$ Electric Heat 3.0
HVAC $2220 \quad$ All-Weather Systems (Heat Pumps) 3.0

## Heat Systems (AHSSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides electrical knowledge for gas heating, oil burner heating, electric heat, practice insulation, and service of various systems. Students also study computer-controlled environments and write computer programs for changing temperature in various locations.

## Requirements for Heat Systems career certificate (24.0 credit hrs.)

## Courses

HVAC $1000 \quad \begin{aligned} & \text { Refrigeration Electrical Theory and } \\ & \end{aligned}$
HVAC $1210 \quad$ Gas Heat 3.0
HVAC $1211 \quad 3.0$
HVAC 1220 Oil Burners 3.0
HVAC 2220 All-Weather Systems (Heat Pumps) 3.0
HVAC $2221 \quad$ Installation and Service Problems 3.0
HVAC $2570 \quad$ Automated Building Controls 3.0

## Refrigeration (ARFSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides students with the electrical knowledge, refrigeration service principles, and shop practice including, soldering, brazing, flaring, and leak checking procedures. Students gain knowledge by installing and servicing refrigeration systems for residential and commercial units.

## Requirements for Refrigeration career certificate (24.0 credit hrs.)

## Courses

HVAC $1000 \quad$ Refrigeration Electrical Theory and 6.0
HVAC $1010 \quad$ Refrigeration Service Principles and Basic $\quad 6.0$
HVAC $1020 \quad$ Refrigeration Shop Practices 3.0
HVAC $1330 \quad$ Commercial Refrigeration Installation 3.0
HVAC $1331 \quad 3.0$
HVAC $1500 \quad$ Air Conditioning, Domestic Refrigeration, and 3.0
Appliance Repair

## Solar Heating Systems (SHSSD)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate provides students with the electrical knowledge for solar heating, gas heating, electric heat, practice installations, and service of various systems. NOTE: SNRG courses do not count toward HVAC degrees; this career certificate leads to a general studies degree.

## Requirements for Solar Heating Systems career certificate ( 25.0 credit hrs.)

## Courses

HVAC $1000 \quad$ Refrigeration Electrical Theory and 6.0
HVAC $1210 \quad$ Gas Heat 3.0
HVAC $1211 \quad$ Electric Heat 3.0
HVAC $2220 \quad$ All-Weather Systems (Heat Pumps) 3.0
SNRG $1240 \quad$ Solar Air Systems Design 4.5
SNRG 1250 Solar Air Install - Overview 1.0
SNRG $1251 \quad$ Solar Air Install 1-Collectors 1.5
SNRG 1252 Solar Air Install 2 - Ventilation 1.5
SNRG $1253 \quad$ Solar Air Install 3 - Blower 1.5

## Industrial and Commercial Trades

The Industrial and Commercial Trades program serves students by providing a diverse education in the trades, maintenance, and distribution fields. All students learn the basics of workplace safety and health as well as effective problemsolving and troubleshooting skills. Depending on the chosen degree option, students prepare to work in building maintenance, industrial maintenance, precision machining, and product distribution fields. Faculty with direct experience in the industry teach the courses. A major strength of the program is the strong hands-on approach to learning.
Degree: Associate in Applied Science
Industrial and Commercial Trades

- Building Maintenance
- Electrical/Mechanical Maintenance
- Industrial Distribution
- Precision Machine CNC and Tool and Die Technology
- Precision Machine CNC Technology

Certificate of Achievement:
Healthy Homes

- Residential Energy Management

Industrial Electrical
Career Certificate:
Beginning Industrial Sales Representative
Advanced Industrial Sales Representative
Building Maintenance
Electrical Mechanical Systems
Electrical Plant Maintenance
General Plant Maintenance
Industrial Electrical
Logistics
Precision Machine Basics
Production Maintenance
Programmable Logic Controllers
Soil Remediation

## Industrial and Commercial Trades (IMAS1)

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 learn the basics of workplace safety and health as well as effective problemsolving and troubleshooting skills. Depending on the chosen degree option, students prepare to work in building maintenance, industrial maintenance, precision machining, and product distribution fields. Faculty with direct experience in the industry teach the courses, with a strong hands-on approach to learning.

## Graduation Requirements

General education 27.0
Major requirements 7.5
Option requirements 62.0-71.5
Total credit hours required $96.5-106.0$
General education requirements ( 27.0 credit hrs.)
Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.
Humanities/social sciences
Humanities/social sciences
4.5

See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended.

| Quantitative/numeracy skills |  |  |
| :---: | :---: | :---: |
|  | Mathematics or Financial Literacy | 4.5 |
| See Quantitative/numeracy skills course options (p. 27) |  |  |
| MATH 1240 is recommended. |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {P }}$ • | 4.5 |
| Major requirements for Industrial and Commercial |  |  |
| Trades (7.5 credit hrs.) |  |  |
| Courses |  |  |
| INCT 1000 | Industrial Safety and Health | 4.5 |
| INCT 2050 | Problem-Solving | 3.0 |

## Option requirements for Industrial and Commercial Trades (62.0-71.5 credit hrs.)

The Industrial and Commercial Trades degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Building Maintenance ( 62.0 credit hrs.)
Industrial and Commercial Trades - Building Maintenance (IMCB2) (p. 53)
Electrical/Mechanical Maintenance ( 65.0 credit hrs.)
Industrial and Commercial Trades - Electrical/Mechanical Maintenance (IMEM1) (p. 53)

Industrial Distribution ( 71.0 credit hrs.)
Industrial and Commercial Trades - Industrial Distribution (IMID1) (p. 54)
Precision Machine CNC Technology ( 67.5 credit hrs.)
Industrial and Commercial Trades - Precision Machine CNC Technology (IMPM2) (p. 55)

Precision Machine CNC and Tool and Die Technology (71.5 credit hrs.)
Industrial and Commercial Trades - Precision Machine CNC and Tool and Die Technology (IMTDO) (p. 55)

## Industrial and Commercial Trades - Building Maintenance (IMCB2)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree option provides education and training for maintenance personnel at residential and commercial facilities. Students learn how the major building, electrical, heating, and air and plumbing systems work together. Students get hands-on training in all of these areas.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 7.5 |
| Option requirements | 62.0 |
| Total credit hours required | $\mathbf{9 6 . 5}$ |

## General education requirements

See General education requirements for Industrial and Commercial Trades (p. 52)

## Major requirements for Industrial and Commercial Trades

See Major requirements for Industrial and Commercial Trades (p. 53)

| Option requirements for Industrial and Commercial |  |  |
| :--- | :--- | :--- |
| Trades - Building Maintenance ( 62.0 credit hrs.) |  |  |
| Courses |  | 6.5 |
| ELTR 1200 | Basic Electricity | 9.0 |
| ELTR 1210 | Residential Wiring | 9.0 |


| ELTR 2040 | Low-Voltage Applications | 6.5 |
| :--- | :--- | :--- |
| HVAC 1000 | Refrigeration Electrical Theory and <br>  <br> HVAC 1010 | Application |
|  | Refrigeration Service Principles and Basic | 6.0 |
| Automatic Controls | 6.0 |  |
| INCT 1301 | Home and Building Maintenance Carpentry | 6.5 |
| INCT 1303 | Basic Plumbing | 6.5 |
| PROT 1302 | Stationary Engineering I | 3.0 |
|  | Electives | 3.0 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Industrial and Commercial Trades Electrical/Mechanical Maintenance (IMEM1)

Award: Associate in applied science degree Program location: South Omaha Campus
This degree option provides education and training for maintenance personnel at industrial and commercial facilities. Students learn standard and advanced electrical systems, mechanical systems, and hydraulic/pneumatic systems.

## Graduation Requirements

General education 27.0

Major requirements 7.5
Option requirements 65.0
Total credit hours required 99.5

## General education requirements

See General education requirements for Industrial and Commercial Trades (p. 52)

## Major requirements for Industrial and Commercial Trades

See Major requirements for Industrial and Commercial Trades (p. 53)
Option requirements for Industrial and Commercial Trades - Electrical/Mechanical Maintenance ( 65.0 credit hrs.)

## Courses

INCT $1050 \quad$ Mechanical Print Reading 4.0
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT $1303 \quad$ Basic Plumbing $\quad 6.5$
INCT $2060 \quad$ Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
INCT $2231 \quad$ Programmable Logic Controllers I 4.5
INCT $2232 \quad$ Programmable Logic Controllers II 4.5
INCT $2235 \quad$ Programmable Logic Controllers Applications $\quad 9.0$
ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
Select a minimum of 4.0 hours from the following:
ELEC $1000 \quad$ Basic Electricity/Electronics 9.0
ELEC $1300 \quad$ Radio Frequency Identification (RFID) 4.5
ELTR $1210 \quad$ Residential Wiring 9.0
ELTR $1220 \quad$ Commercial Wiring 9.0
ELTR $2040 \quad$ Low-Voltage Applications 6.5
ELTR $2240 \quad$ National Electrical Code 4.5
INCT $1400 \quad$ Introduction to Precision Machine 6.5
INCT 2981 Internship variable
PROT $1302 \quad$ Stationary Engineering I 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
ELTR 2240 is recommended.

5

| Curriculum Plan |  |  |
| :---: | :---: | :---: |
| Below is a suggested guide for students planning careers in electrical/mechanical maintenance after two years of full-time study. |  |  |
| First Year |  |  |
| First quarter (Fall) |  |  |
| INCT 1000 | Industrial Safety and Health | 4.5 |
| INCT 2050 | Problem-Solving | 3.0 |
| MATH 1240 | Applied Mathematics | 4.5 |
| Second quarter (Winter) |  |  |
| ENGL 1220 | Technical Writing ${ }^{\text {® }}$ | 4.5 |
| INCT 1050 | Mechanical Print Reading | 4.0 |
| INCT 2060 | Mechanical Power Systems | 4.0 |
| Third quarter (Spring) |  |  |
| ENGL 1240 | Oral and Written Reports ${ }^{*}$ | 4.5 |
|  | Humanities/social sciences | 4.5 |
| INCT 2070 | Hydraulics and Pneumatics | 4.0 |
| Fourth quarter (Summer) |  |  |
|  | Electives | 4.0 |
| INCT 1303 | Basic Plumbing | 6.5 |
| Second Year |  |  |
| Fifth quarter (Fall) |  |  |
| ELTR 1200 | Basic Electricity | 6.5 |
| HMRL 1010 | Human Relations Skills ${ }^{\text {© © }}$ | 4.5 |
| WELD 1100 | Industrial Cutting Processes | 3.0 |
| Sixth quarter (Winter) |  |  |
| INCT 1212 | Motor and Machine Controls | 9.0 |
| INFO 1001 | Information Systems and Literacy-0 | 4.5 |
| WELD 1500 | Shielded Metal Arc Welding (Stick) - Flat | 3.0 |
| Seventh quarter (Spring) |  |  |
| INCT 2231 | Programmable Logic Controllers I | 4.5 |
| INCT 2232 | Programmable Logic Controllers II | 4.5 |
| WELD 1200 | Gas Metal Arc Welding (MIG) - Steel I | 3.0 |
| Eighth quarter (Summer) |  |  |
| INCT 2235 | Programmable Logic Controllers Applications | 9.0 |
| The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded. |  |  |
| Industrial and Commercial Trades - Industrial |  |  |
| Distribution (IMID1) |  |  |
| Award: Associate in applied science degree |  |  |
| Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus |  |  |
| This degree option 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 has two certificates of achievement-Industrial Distribution I (p. 54) and Industrial Distribution II (p. 54). Students completing both certificates are awarded the associate in applied science degree. |  |  |
| Each certificate can be taken separately. People with little or no experience as an industrial sales representative should start with the Industrial Distribution I certificate. People with two or more years of experience in the field may prefer to take the Industrial Distribution II certificate. |  |  |
| Graduation Requirements |  |  |
| General educ |  | 27.0 |
| Certificate I re | ents | 26.0 |
| Certificate II r | ments | 25.0 |
| Electives |  | 20.0 |
| Total credit | equired | 98.0 |

## Industrial Distribution I (ID1CE) <br> General education requirements ( 13.5 credit hrs.) <br> Communications <br> Select one course from the following: <br> ENGL $1210 \quad$ Applied Communications 4.5 <br> ENGL $1230 \quad$ Business Writing $\begin{array}{ll}\text { B } & 4.5\end{array}$ <br> $\begin{array}{lll}\text { Quantitative/numeracy skills } & \\ \text { MATH } 1220 \quad \text { Business Mathematics } \backsim & 4.5\end{array}$ <br> MATH $1220 \quad$ Business Mathematics $\checkmark$ - <br> Other <br> INFO 1001 Information Systems and Literacy © 4.5 <br> HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5 <br> Students should select INFO 1001 if not previously completed. If INFO 1001 previously completed, then select HMRL 1010. <br> Major requirements for Certificate I ( 26.0 credit hrs.) <br> Courses <br> BSAD 1000 Introduction to Business -3 4.5 <br> BSAD $1200 \quad$ Principles of Selling 4.5 <br> INCT $1000 \quad$ Industrial Safety and Health 4.5 <br> INCT $1500 \quad$ Introduction to Distribution 4.5 <br> INCT 2981 Internship variable

## Elective requirements for Certificate I ( 9.0 credit hrs.) Courses

Students should take a minimum of 9.0 elective credits in one or more areas related to their work needs or interests. Acceptable courses are various courses in Chemistry (CHEM) (p. 167), Construction (CNST) (p. 173), Diesel Technology (DESL/CDL) (p. 178), Electrical Technology (ELTR) (p. 186), Electronics Technology (ELEC) (p. 185), Entrepreneurship (ENTR) (p. 190), Industrial and
Commercial Trades (INCT) (p. 205), Information Technology (INFO) (p. 207),
Mechanical Design Technology (DRAF) (p. 181), and Welding (WELD) (p. 240).

## Industrial Distribution II (ID2CE)

## General education requirements ( 13.5 credit hrs.)

Communications
ENGL $1240 \quad$ Oral and Written Reports $\checkmark$ ® 4.5

ENGL 1240: Additional prerequisite(s) may be required.
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Other
INFO 1001 Information Systems and Literacy 4.5
HMRL 1010 Human Relations Skills $\smile$ © 4.5
Students should select INFO 1001 if not previously completed. If INFO 1001
previously completed, then select HMRL 1010.
Major requirements for Certificate II ( 25.0 credit hrs.)
Courses
BSAD $1010 \quad$ Principles of Marketing $\smile$ B $\quad 4.5$
BSAD $2100 \quad$ Principles of Management $\mathcal{B} \quad 4.5$
BSAD $2400 \quad$ Business Logistics 4.5
BSAD $2410 \quad$ Purchasing and Materials Management 4.5
INCT $1050 \quad$ Mechanical Print Reading 4.0
INCT $2050 \quad$ Problem-Solving 3.0

## Elective requirements for Certificate II (11.0 credit hrs.) <br> Courses <br> Students should take a minimum of 11.0 elective credits in one or more areas related to their work needs or interests. Acceptable courses are various courses in Business Management (BSAD), Chemistry (CHEM), Construction (CNST), <br> Electrical Technology (ELTR), Entrepreneurship (ENTR), Industrial and Commercial Trades (INCT), Information Technology (INFO), and Welding (WELD).

## Industrial and Commercial Trades - Precision Machine CNC Technology (IMPM2)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree 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 | 67.5 |
| Total credit hours required | 102.0 |
| General education requirements |  |
| See General education requirements for Industrial and Commercial Trades (p. 52) |  |

## Major requirements for Industrial and Commercial Trades

See Major requirements for Industrial and Commercial Trades (p. 53)

## Option requirements for Industrial and Commercial Trades - Precision Machine CNC Technology ( 67.5 credit hrs.)

## Courses

INCT $1050 \quad$ Mechanical Print Reading 4.0
INCT $1400 \quad$ Introduction to Precision Machine 6.5
INCT $1410 \quad$ Precision Layout and Finishing 4.0
INCT $1420 \quad$ Basic Engine Lathe 4.0
INCT $1421 \quad$ Basic Milling Machine 4.0
INCT $1422 \quad$ Basic Grinding Machine Setup and 4.0
INCT $2060 \quad$ Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
INCT 2410 CNCI 4.0
INCT $2411 \quad$ CNC II 4.0
INCT $2420 \quad$ Intermediate Engine Lathe 4.0
INCT $2421 \quad$ Intermediate Milling Machines 4.0
DRAF $1100 \quad$ AutoCAD Fundamentals 9.0
Select a minimum of 8.0 credit hours from the following:
ELTR $1200 \quad$ Basic Electricity
$\begin{array}{lll}\text { INCT } 1212 & \text { Masic Electricity } & 6.5 \\ & \text { Mand Machine Controls } & 9.0\end{array}$
INCT $2440 \quad$ Advanced Machining Process 4.0
INCT 2981 Internship variable
WELD 1100 Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
Electives 6.0
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Industrial and Commercial Trades - Precision Machine CNC and Tool and Die Technology (IMTDO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree option provides education and training in machine tool operation and related subjects. This degree also prepares students for a career in tool and die related fields. Students study die theory of blanking and notching dies. The student designs and constructs a basic die.

\section*{Graduation Requirements <br> | General education | 27.0 |
| :--- | :--- |
| Major requirements | 7.5 |
| Option requirements | 71.5 |
| Total credit hours required | 106.0 |}

## General education requirements

See General education requirements for Industrial and Commercial Trades (p. 52)

## Major requirements for Industrial and Commercial Trades

See Major requirements for Industrial and Commercial Trades (p. 53)

## Option requirements for Industrial and Commercial Trades - Precision Machine CNC and Tool and Die Technology ( 71.5 credit hrs.)

## Courses

INCT $1050 \quad$ Mechanical Print Reading 4.0
INCT $1400 \quad$ Introduction to Precision Machine 6.5
INCT $1410 \quad$ Precision Layout and Finishing 4.0
INCT $1420 \quad$ Basic Engine Lathe 4.0
INCT $1421 \quad$ Basic Milling Machine 4.0
INCT $1422 \quad$ Basic Grinding Machine Setup and 4.0
INCT 2410 CNCI 4.0
INCT $2411 \quad$ CNC II 4.0
INCT 2412 CNC III 4.0
INCT 2420 Intermediate Engine Lathe 4.0
INCT $2421 \quad$ Intermediate Milling Machines 4.0
INCT $2500 \quad$ Tool and Die Technology 4.0
INCT $2510 \quad$ Die Design and Construction 4.0
DRAF 1100 AutoCAD Fundamentals 9.0
$\begin{array}{lll}\text { Select a minimum of } 8.0 \text { credit hours from the following: } \\ \text { ELTR } 1200 & \text { Basic Electricity } & 6.5\end{array}$
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT $2060 \quad$ Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
INCT 2440 Advanced Machining Process 4.0
INCT 2981 Internship variable
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
The degree option is an area of interest within a program. Although students may
complete single or multiple options within this program, only the major degree is awarded.

Industrial and Commercial Trades - Healthy
Homes (IHHCE)
Award: Certificate of achievement
Program location: South Omaha Campus
This certificate provides students with a strong understanding of healthy homes by providing students with the skills and techniques necessary to diagnose and prioritize energy-saving projects in a residence. Students learn how to complete home energy upgrade improvements such as insulation and air sealing, also known as weatherization. This training prepares students for employment in the weatherization industry. NOTE: This certificate of achievement leads to a degree in general studies

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | 30.0 |
| Option requirements | 11.5 |
| Total credit hours required | 55.0 |

General education requirements ( 13.5 credit hrs.)
Communications
English level I
See Communications course options (p. 25)
ENGL 1220 is recommended.
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences options (p. 25)
PSYC 1000 is recommended.
Quantitative/Numeracy Skills Mathematics or Financial Literacy
See Quantitative/numeracy skills options (p. 27)
MATH 1240 is recommended.
Major requirements for Healthy Homes (30.0 credit hrs.)
Courses
CNST $1050 \quad$ Introduction to Carpentry 3.5
CNST $1080 \quad$ Healthy Homes Foundations 1.0
CNST 1085 International Green Construction Code 3.0
CNST $2100 \quad$ Construction Safety (30-Hour) 4.5
EMSP $1010 \quad$ Heartsaver First Aid with CPR and AED 1.0
FIST $2071 \quad$ Hazwoper for the Industry 3.5
INCT 1020 Lead Safe Practices I 1.0
INCT $1025 \quad$ Lead Abatement Worker 1.5
INCT $1028 \quad 3.0$
SNRG $1120 \quad$ Weatherization Installer Fundamentals 4.0
SNRG 1121 Weatherization Installer Intermediate 4.0
Option requirements for Healthy Homes ( 11.5 credit hrs.)
A Healthy Homes option is available in the area listed below. See the following for specific additional courses required to satisfy the option. A degree option is an area of interest within a program. Although students may complete single or multiple options within the program, only the major degree is awarded.
Residential Energy Management (11.5 credit hrs.)
Healthy Homes - Residential Energy Management (IHHRO) (p. 56)

## Healthy Homes - Residential Energy Management (IHHRO)

Award: Certificate of achievement
Program location: South Omaha Campus
This option provides Healthy Homes students with more advanced training in lead-specific activities. Students pursuing this option are well-prepared to complete government-issued certifications required for cleanup activities within residential dwellings impacted by lead and other hazardous materials. NOTE: This certificate of achievement leads to a degree in general studies.

## Graduation Requirements

General education 13.5
Major requirements 30.0
Option requirements 11.5
Total credit hours required 55.0

## General education requirements

See General education requirements for Healthy Homes (p. 56)
Major requirements for Healthy Homes
See Major requirements for Healthy Homes (p. 56)
Option requirements for Residential Energy
Management (11.5 credit hrs.)

| Courses |  |
| :--- | :--- |
| SNRG 1124 |  |
| SNRG 1125 | Weatherization Installer - Mobile Homes |
| SNRG 1126 | Wembustion Appliance Zone (CAZ) Training |
| SNRG 1130 | Home Energy Auditor - Single Family | |  |
| :--- |

## Industrial and Commercial Trades - Industrial Electrical (IIECE)

Award: Certificate of achievement Program location: South Omaha Campus
This certificate of achievement is for students who may work in the industrial setting. Students 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
ENGL $1220 \quad$ Technical Writing $\quad 4.5$

Quantitative/numeracy skills
MATH $1240 \quad$ Applied Mathematics 4.5
Other
INFO 1001 Information Systems and Literacy $\quad 4.5$
Major requirements for Industrial and Commercial
Trades - Industrial Technology ( 38.0 credit hrs.)
Courses
ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT $2231 \quad$ Programmable Logic Controllers I 4.5
INCT $2232 \quad$ Programmable Logic Controllers II 4.5
INCT $2235 \quad$ Programmable Logic Controllers Applications $\quad 9.0$
INCT 2235: Additional prerequisite(s) may be required.

## Beginning Industrial Sales Representative (IBISD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate provides the minimal skills to get an entry-level job as a sales representative in a manufacturing distribution company.
Requirements for Beginning Industrial Sales Representative career certificate ( 27.0 credit hrs.)
Courses
BSAD $1000 \quad$ Introduction to Business ${ }^{\text {B }} \quad 4.5$
BSAD $1200 \quad$ Principles of Selling 4.5
ENGL $1210 \quad$ Applied Communications 4.5
OR $\quad 4.5$
$\begin{array}{lll}\text { ENGL } 1230 & \text { Business Writing } \begin{array}{l}\text { B }\end{array} & 4.5 \\ \text { INCT } 1000 & \text { Industrial Safety and Health } & 4.5\end{array}$
INCT 1500 Introduction to Distribution 4.5
INFO 1001 Information Systems and Literacy $\odot \quad 4.5$

## Advanced Industrial Sales Representative (IAISD)

Award: Career certificate

## Program location: South Omaha Campus

This career certificate enhances students' knowledge of distribution sales. This career certificate is generally for students who are already doing sales or who have completed the Beginning Industrial Sales Representative career certificate.

## Requirements for Advanced Industrial Sales

Representative career certificate ( 25.0 credit hrs.)

## Courses

BSAD $1010 \quad$ Principles of Marketing - B 4.5
BSAD $2100 \quad$ Principles of Management $\because 0 \quad 4.5$
BSAD $2400 \quad$ Business Logistics 4.5
BSAD $2410 \quad$ Purchasing and Materials Management 4.5
INCT $1050 \quad$ Mechanical Print Reading 4.0
INCT $2050 \quad 3.0$

## Building Maintenance (IBMSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for maintenance positions in hospitals, schools, commercial buildings, and property management.

## Requirements for Building Maintenance career certificate ( 27.0 credit hrs.)

## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $1301 \quad$ Home and Building Maintenance Carpentry $\quad 6.5$
INCT 1303 Basic Plumbing 6.5
INCT $2050 \quad 3.0$

## Electrical Mechanical Systems (IEMSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for positions as maintenance technicians in manufacturing environments. NOTE: This career certificate leads to a general studies degree.

## Requirements for Electrical Mechanical Systems career certificate ( 35.5 credit hrs.) <br> Courses <br> ELTR $1200 \quad$ Basic Electricity $\quad 6.5$ <br> INCT $1212 \quad$ Motor and Machine Controls 9.0 <br> INCT $1303 \quad$ Basic Plumbing 6.5 <br> INCT $1400 \quad$ Introduction to Precision Machine 6.5 <br> INCT $1410 \quad$ Precision Layout and Finishing 4.0 <br> PROT 1302 Stationary Engineering I 3.0

## Electrical Plant Maintenance (IEPSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for positions as maintenance technicians who are responsible for plants' electrical systems.

## Requirements for Electrical Plant Maintenance career certificate ( 29.0 credit hrs.)

## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT $2231 \quad$ Programmable Logic Controllers I 4.5
INFO $1001 \quad$ Information Systems and Literacy 0 © 4.5

## General Plant Maintenance (IGPSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for machine repair positions in a manufacturing environment.

## Requirements for General Plant Maintenance career certificate ( 34.5 credit hrs.)

Courses
ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT 1303 Basic Plumbing 6.5
INCT 2060 Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0

## Industrial Electrical (IMECC)

Award: Career certificate
Program location: South Omaha Campus
This career certificate provides the minimum skills to get an entry-level job wiring control circuits in an industrial setting.

## Requirements for Industrial Electrical career certificate

 (29.0 credit hrs.)
## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT $2231 \quad$ Programmable Logic Controllers I 4.5
INCT $2232 \quad$ Programmable Logic Controllers II 4.5

## Logistics (IMLCC)

Award: Career certificate
Program location: South Omaha Campus
This career certificate is a focused set of classes designed to prepare students to work in the supply chain areas of business and industry. Whether in a parts department of an automotive shop or in a food manufacturing plant or a distribution warehouse, this certificate provides a useful set of skills. Upon successful completion of the coursework, students have the opportunity to earn industry recognized, nationally validated certifications through the Manufacturing Skills Standards Council.

## Requirements for Logistics career certificate (27.0 credit hrs.)

## Courses

INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT 1100 Logistics and Warehousing for Applied 4.5
Technologies
OR
BSAD $2400 \quad$ Business Logistics 4.5
INCT $1500 \quad$ Introduction to Distribution 4.5
BSAD $1000 \quad$ Introduction to Business $\begin{array}{ll}\text { B } & 4.5\end{array}$
BSAD $1010 \quad$ Principles of Marketing -3.5
BSAD $2100 \quad$ Principles of Management $\because 3.5$
Degree-seeking students should select BSAD 2400 Business Logistics.

Upon completion of the courses identified within this career certificate, students are prepared to earn industry standard certifications such as OSHA 30 hour, Manufacturing Skills Standards Council Certified Logistics Associate, and Certified Logistics Technician.

## Precision Machine Basics (IMBSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for positions as millwrights, machinists, mechanics, and production workers.

## Requirements for Precision Machine Basics career certificate ( 27.0 credit hrs.)

## Courses

INCT 1000
Industrial Safety and Health
INCT 1400
Introduction to Precision Machine 6.5

INCT 1410
Technology

INCT 1420
Precision Layout and Finishing

INCT $1421 \quad$ Basic Milling Machine 4.0
INCT $1422 \quad$ Basic Grinding Machine Setup and 4.0
Operations

## Production Maintenance (IPMSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate enhances the skills needed for positions as production workers with some responsibilities for maintenance tasks.

## Requirements for Production Maintenance career certificate ( 33.0 credit hrs.)

## Courses

ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1212 \quad$ Motor and Machine Controls 9.0
INCT 1303 Basic Plumbing 6.5
INCT $2060 \quad$ Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
PROT 1302 Stationary Engineering I 3.0

## Programmable Logic Controllers (IPLSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate gives students the information and skills needed for the installation and maintenance of programmable logic controllers as used in industry, building maintenance, and entertainment.

## Requirements for Programmable Logic Controllers career certificate ( 25.5 credit hrs.)

Courses
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $2050 \quad$ Problem-Solving 3.0
INCT $2231 \quad$ Programmable Logic Controllers I 4.5
INCT $2232 \quad$ Programmable Logic Controllers II 4.5
INCT $2235 \quad$ Programmable Logic Controllers Applications 9.0

## Soil Remediation (ISRCC)

Award: Career certificate
Program location: South Omaha Campus
Local industry identified this curriculum as the skills and safe work practice training needed for cleanup activities within communities impacted by a variety of waste facilities, blighted properties, and contaminated sites. NOTE: This career certificate leads to a general studies degree.

## Requirements for Soil Remediation career certificate (34.5 credit hrs.)

Courses
CNST $1080 \quad$ Healthy Homes Foundations 1.0
DESL $1310 \quad$ Truck Driver CDL Training I 8.5
DESL $1320 \quad$ Truck Driver CDL Training II 9.0
FIST $2071 \quad$ Hazwoper for the Industry 3.5
INCT $1010 \quad$ Introduction to the Trades II 6.0
INCT 1020 Lead Safe Practices I 1.0
INCT $1304 \quad$ Small Engine Repair 4.5
EMSP $1010 \quad$ Heartsaver First Aid with CPR and AED 1.0

## Mechanical Design Technology

The Mechanical Design Technology program provides opportunities for students 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.
Degree: Associate in Applied Science
Mechanical Design Technology
Certificate of Achievement:
Mechanical Design Technology
Career Certificate:
Computer-Aided Manufacturing Design
Computer-Aided Design
Computer-Aided Drafting

## Mechanical Design Technology (DRAS1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree provides opportunities for students 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.

## Graduation Requirements

General education 27.0
Major requirements 72.0
Total credit hours required 99.0

## General education requirements ( 27.0 credit hrs.)

## Communications

English level I 4.5

English level II 4.5
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/Numeracy Skills
MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B 4.5
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ • 4.5
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for Mechanical Design Technology (72.0 credit hrs.)

## Courses

DRAF 1100 AutoCAD Fundamentals 9.0
DRAF $1200 \quad$ Design for Precision (Measurement) 9.0
DRAF 1300 Inventor Fundamentals 9.0
DRAF $1400 \quad$ Manufacturing Process Design 9.0

| DRAF 2100 | SolidWorks Fundamentals | 9.0 |
| :--- | :--- | :--- |
| DRAF 2200 | Machine Design Principles | 9.0 |
| DRAF 2300 | Creo (Pro/E) Fundamentals | 9.0 |
| DRAF 2400 | Tool Design Processes | 9.0 |

## Curriculum Plan - After One Year

Below is a suggested guide for students planning careers in mechanical design technology after one year of full-time study.

## First Year

| First quarter |  |  |
| :--- | :--- | :--- |
| DRAF 1100 | AutoCAD Fundamentals | 9.0 |
| DRAF 2100 | SolidWorks Fundamentals | 9.0 |
|  | English level I | 4.5 |
| INFO 1001 | Information Systems and Literacy®® | 4.5 |
| Second quarter |  |  |
| DRAF 1400 | Manufacturing Process Design | 9.0 |
| DRAF 2300 | Creo (Pro/E) Fundamentals | 9.0 |
|  | English level II | 4.5 |
| MATH 1310 | Intermediate Algebraß | 4.5 |
| Third quarter |  |  |
| DRAF 1300 | Inventor Fundamentals | 9.0 |
| DRAF 2200 | Machine Design Principles | 9.0 |
|  | Humanities/social sciences | 4.5 |
| Fourth quarter |  |  |
| DRAF 1200 | Design for Precision (Measurement) | 9.0 |
| DRAF 2400 | Tool Design Processes | 9.0 |
| HMRL 1010 | Human Relations Skills® | 4.5 |

## Curriculum Plan - After Two Years

Below is a suggested guide for students planning careers in mechanical design technology after two years of full-time study.
First Year
First quarter
DRAF $1100 \quad$ AutoCAD Fundamentals 9.0
INFO 1001 Information Systems and Literacy® © 4.5
$\begin{array}{lll}\text { Second quarter } & & \\ \text { DRAF 1200 } & \text { Design for Precision (Measurement) } & 9.0\end{array}$
$\begin{array}{lll} & \text { English level II } & 4.5 \\ \text { MATH } 1310 & \text { Intermediate Algebra } & 4.5\end{array}$

| Third quarter |  |  |
| :--- | :--- | :--- |
| DRAF 1300 | Inventor Fundamentals |  |
| 100 |  |  |

$\begin{array}{lll}\text { DRAF } 1300 & \text { Inventor Fundamentals } & 9.0 \\ & \text { Humanities/social sciences } & 4.5\end{array}$

| Second Year |  |  |
| :--- | :--- | :--- |
| Fifth quarter |  |  |
| DRAF 1400 | Manufacturing Process Design | 9.0 |
| DRAF 2100 | SolidWorks Fundamentals | 9.0 |
| Sixth quarter |  |  |
| DRAF 2200 | Machine Design Principles | 9.0 |
| DRAF 2300 | Creo (Pro/E) Fundamentals | 9.0 |
| Seventh quarter |  |  |
| DRAF 2400 | Tool Design Processes | 9.0 |
| HMRL 1010 | Human Relations Skills $\int$ © | 4.5 |

## Mechanical Design Technology (DRTC1)

Award: Certificate of achievement
Program location: Fort Omaha Campus
This certificate of achievement provides students with basic skills in classical drafting techniques and computer-aided drafting. Employment opportunities in many phases of drafting exist in local industries.

\section*{Graduation Requirements <br> | General education | 13.5 |
| :--- | :--- |
| Major requirements | 36.0 |
| Total credit hours required | 49.5 |}

General education requirements ( 13.5 credit hrs.) Communications

English level I
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B

## Major requirements for Mechanical Design Technology ( 36.0 credit hrs.)

Courses
DRAF 1100 AutoCAD Fundamentals 9.0

Students can take any design class after successful completion of DRAF
1100. Design classes include: DRAF 1200, DRAF 1400, DRAF 2200, and DRAF 2400.

Select one course from the following:

| DRAF 1300 | Inventor Fundamentals | 9.0 |
| :--- | :--- | :--- |
| DRAF 2100 | SolidWorks Fundamentals | 9.0 |
| DRAF 2300 | Creo (Pro/E) Fundamentals | 9.0 |

DRAF 2300 Creo (Pro/E) Fundamentals 9.0
Select two courses from the following:
DRAF $1200 \quad$ Design for Precision (Measurement) 9.0
DRAF $1400 \quad$ Manufacturing Process Design 9.0
DRAF $2200 \quad$ Machine Design Principles 9.0
DRAF 2400 Tool Design Processes 9.0
Computer-Aided Manufacturing Design (DCMSD)
Award: Career certificate
Program location: Fort Omaha Campus
This career certificate enables students to enhance their job-relevant skills in the
workplace using CAD software. They are 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 career certificate ( 27.0 credit hrs.)
## Courses

DRAF 1100 AutoCAD Fundamentals 9.0
Select one course from the following:
DRAF 1300 Inventor Fundamentals 9.0

DRAF $2100 \quad$ SolidWorks Fundamentals 9.0
DRAF $2300 \quad$ Creo (Pro/E) Fundamentals 9.0
Select one course from the following:
DRAF $1200 \quad$ Design for Precision (Measurement) 9.0
DRAF $1400 \quad$ Manufacturing Process Design 9.0
DRAF $2200 \quad$ Machine Design Principles 9.0
DRAF 2400 Tool Design Processes 9.0

## Computer-Aided Design (DCDSD)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate enables students to enhance their job-relevant skills in the workplace using CAD software. They are able to apply CAD software in the design of cams, gears, mechanisms, and other machine components.

## Requirements for Computer-Aided Design career certificate (27 credit hrs.)

## Courses

DRAF 1100 AutoCAD Fundamentals 9.0
Select two courses from the following:
DRAF $1200 \quad$ Design for Precision (Measurement) 9.0
DRAF $1400 \quad$ Manufacturing Process Design 9.0
DRAF $2200 \quad$ Machine Design Principles 9.0
DRAF 2400 Tool Design Processes 9.0

## Computer-Aided Drafting (DCASD)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate enables students to enhance their job-relevant skills in the workplace using CAD software. They are 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 career certificate (27 credit hrs.)

## Courses

DRAF 1100 AutoCAD Fundamentals 9.0
Select two courses from the following:
DRAF $1300 \quad$ Inventor Fundamentals 9.0

DRAF $2100 \quad$ SolidWorks Fundamentals 9.0
DRAF $2300 \quad$ Creo (Pro/E) Fundamentals 9.0

## Plumbing Apprenticeship

The Plumbing Apprenticeship program prepares students to become licensed plumbers. The courses are offered on an evening schedule, allowing students to seek employment with plumbing contractors during the day. Students receive college credit for successful completion of the coursework and at the same time complete the plumbing apprenticeship classroom hours requirement. It is highly recommended that work experience and the apprenticeship program be done concurrently. After completing the Plumbing Apprenticeship program and the required on-the-job training (four years of verifiable experience), the student may apply to take the examination for the Journeyman's Plumbing License administered by the city of Omaha.

Degree: Associate in Applied Science
Plumbing Apprenticeship
Career Certificate:
Solar Water Systems

## Plumbing Apprenticeship (ARPAO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree 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 and at the same time complete the plumbing apprenticeship classroom hours requirement. For more information about this program, contact the apprenticeship coordinator at 402-738-4034.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 7.5 |
| Apprenticeship classes | 65.5 |

Total credit hours required 100.0

## General education requirements ( 27.0 credit hrs.)

Communications

> English level I

English level II
See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

| Humanities/Social Sciences |
| :---: |
| Humanities/social sciences |

See Humanities/social sciences course options (p. 25) $\quad 4.5$

Major requirements for Plumbing Apprenticeship (7.5 credit hrs.)
Courses

| CNST 2100 | Construction Safety (30-Hour) | 4.5 |
| :--- | :--- | :--- |
| INCT 2050 | Problem-Solving | 3.0 |

## Apprenticeship requirements for Plumbing Apprenticeship ( 65.5 credit hrs.)

## Courses

PLAP $1110 \quad$ Plumbing IA 7.0
PLAP $1120 \quad$ Plumbing IB 7.0

PLAP $1121 \quad$ Plumbing IC 3.0
PLAP $1210 \quad$ Plumbing IIA 7.0
PLAP $1220 \quad$ Plumbing IIB 7.0
PLAP $1221 \quad$ Plumbing IIC 3.0
PLAP $2310 \quad$ Plumbing IIIA 7.0
PLAP $2320 \quad$ Plumbing IIIB 7.0
PLAP $2330 \quad$ Print Reading for Plumbers 3.5
PLAP $2410 \quad$ Plumbing IVA 7.0
PLAP $2420 \quad$ Plumbing IVB 7.0

## Solar Water Systems (SWSSD)

## Award: Career certificate

Program location: Fort Omaha Campus, South Omaha Campus
This career certificate provides students with plumbing knowledge for solar hot water heating, solar storage systems, and heat distribution. NOTE: SNRG courses do not count toward a PLAP degree; this career certificate leads to a general studies degree.

## Requirements for Solar Water Systems career certificate ( 24.0 credit hrs.)

## Courses

PLAP $1110 \quad$ Plumbing IA 7.0
PLAP $1120 \quad$ Plumbing IB 7.0
SNRG $1260 \quad$ Solar Water Systems Design 4.5
SNRG $1270 \quad$ Solar Water Installation - Overview 1.0
SNRG $1271 \quad$ Solar Water Install 1 - Panels 1.5
SNRG 1272 Solar Water Install 2-Storage 1.5
SNRG 1273 Solar Water Install 3 - Piping 1.5

## Process Operations Technology

This program provides training and advancement opportunities for entry-level employees in a variety of continuous process operating plants. These include ethanol and bio-diesel plants along with other bio-processing industries. A complete power plant operations option is also available. Students are trained to operate and maintain process plants and power generating plants. Hands-on training in lab settings simulates real work environments.

[^2]
## Process Operations Technology (PROAS)

Award: Associate in applied science degree
Program location: Washington County Technology Center
This degree provides training for entry-level employees in a variety of continuous process operating plants. These include ethanol and bio-diesel plants along with other bio-processing industries. A complete power plant operations option is also available. Graduates are trained to operate and maintain process plants and power generating plants. Contact an advisor or counselor for details about these learning opportunities.

| Graduation Requirements |  |
| :--- | :--- |
| General education | 31.5 |
| Major requirements | 41.0 |
| Option requirements | $24.0-36.0$ |
| Total credit hours required | $96.5-108.5$ |

General education requirements ( 31.5 credit hrs.)

## Communications

| ENGL 1220 | Technical Writing $\mathcal{\vartheta}$ | 4.5 |
| :--- | :--- | :--- |
| ENGL 1240 | Oral and Written Reports $\sim$ | 4.5 |

Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
MATH $1240 \quad$ Applied Mathematics 4.5

MATH $1310 \quad$ Intermediate Algebra 3 3.5
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy® © 4.5

## Major requirements for Process Operations Technology ( 41.0 credit hrs.)

Courses
PROT $1100 \quad$ Process Instrumentation and Control 4.5
PROT $1110 \quad$ Reading and Understanding Process 2.0
PROT $1250 \quad$ Basic Electricity for Power and Process 6.0
PROT 1302 Stationary Engineering I 3.0
PROT 2302 Stationary Engineering II 4.0
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $2060 \quad$ Mechanical Power Systems 4.0
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
PHYS $1010 \quad$ Applied Physics 4.5
WORK $1401 \quad$ Employability Skills for Process, Power, and 4.5

## Option requirements for Process Operations

 Technology (24.0-36.0 credit hrs.)The Process Operations Technology degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Bio-Processing ( 24.5 credit hrs.)
Process Operations Technology - Bio-Processing (PRBPO) (p. 61)
Nuclear Power Plant Non-Licensed Operator (36.0 credit hrs.)
Process Operations Technology - Nuclear Power Plant Non-Licensed Operator (PRPNO) (p. 61)
Power Plant ( 24.0 credit hrs.)
Process Operations Technology - Power Plant (PRPPO) (p. 62)

## Process Operations Technology - BioProcessing (PRBPO)

Award: Associate in applied science degree Program location: Washington County Technology Center
Bio-technology generally involves the use of live cells and their molecules to produce useful products. The ethanol and bio-diesel industries are examples where bio-technology is used in the production process. This degree option provides entry-level training in maintaining, monitoring, and controlling equipment and processes used in bio-processing industries.

## Graduation Requirements

General education 31.5
Major requirements 41.0
Option requirements 24.5
Total credit hours required 97.0

## General education requirements

See General education requirements for Process Operations Technology (p. 61)
Major requirements for Process Operations Technology
See Major requirements for Process Operations Technology (p. 61)
Option requirements for Process Operations Technology - Bio-Processing ( 24.5 credit hrs.)

## Courses

BIOS 1500 Introduction to Bioprocessing 4.5

BIOS 1500L Introduction to Bioprocessing Lab 0.0
CHEM $1510 \quad$ Chemistry for Bioindustry I 3.0
CHEM 1510L Chemistry for Bioindustry I Lab 0.0
CHEM $1520 \quad$ Chemistry for Bioindustry II 3.0
CHEM 1520L Chemistry for Bioindustry II Lab 0.0
PROT $2200 \quad$ Dynamics of Process Control 4.5
PROT $2210 \quad$ Ethanol Process Fundamentals 3.5
Select one of the following groups:
CHEM $1210 \quad$ General Chemistry: Part I 2.0
CHEM 1210L General Chemistry: Part I Lab 0.0
CHEM $1211 \quad$ General Chemistry: Part II 4.0
CHEM 1211L General Chemistry: Part II Lab 0.0
OR
CHEM $1212 \quad$ General Chemistry I: Accelerated 6.0
CHEM 1212L General Chemistry I: Accelerated Lab 0.0

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Process Operations Technology - Nuclear Power Plant Non-Licensed Operator (PRPNO)

Award: Associate in applied science degree
Program location: Washington County Technology Center
Nuclear power plants produce steam to be used in the production of electricity. This degree option provides entry-level training in maintaining, monitoring, and controlling equipment, systems, and processes found in both fossil- and nuclearfueled power generating plants.

## Graduation Requirements

General education 31.5
Major requirements 41.0
Option requirements 36.0
Total credit hours required 108.5

## General education requirements

See General education requirements for Process Operations Technology (p. 61)

## Major requirements for Process Operations Technology

See Major requirements for Process Operations Technology (p. 61)

## Option requirements for Process Operations Technology - Nuclear Power Plant Non-Licensed Operator ( 36.0 credit hrs.)

## Courses

CHEM $1010 \quad$ College Chemistry ${ }^{\text {® }} \quad 6.0$
CHEM 1010L College Chemistry Lab 0.0
MATH 1410 Statistics $\smile$ - 4.5
PROT $1320 \quad$ Fuel Handling 3.0
PROT $2310 \quad$ Steam Plant Operation I 4.5
PROT 2320 Steam Plant Operation II 4.5
PROT $2330 \quad$ Steam Plant Operation III 6.0
PROT $2410 \quad$ Nuclear Plant Operation I 4.5
PROT $2420 \quad$ Nuclear Plant Operation II 3.0
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Process Operations Technology - Power Plant (PRPPO)

Award: Associate in applied science degree
Program location: Washington County Technology Center
Many industries produce steam to be used in process and operations. This
degree option provides entry-level training in maintaining, operating, and
controlling equipment that produces and uses steam in fossil-fueled industrial and power generating plants.

| Graduation Requirements |  |
| :--- | :--- |
| General education | 31.5 |
| Major requirements | 41.0 |
| Option requirements | 24.0 |
| Total credit hours required | 96.5 |

## General education requirements

See General education requirements for Process Operations Technology (p. 61)

## Major requirements for Process Operations Technology

See Major requirements for Process Operations Technology (p. 61)
Option requirements for Process Operations Technology - Power Plant ( 24.0 credit hrs.)
Courses
CHEM $1010 \quad$ College Chemistry ${ }^{\text {B }} 6.0$
CHEM 1010L College Chemistry Lab 0.0
PROT $1320 \quad$ Fuel Handling 3.0
PROT $2310 \quad$ Steam Plant Operation I 4.5
PROT $2320 \quad$ Steam Plant Operation II 4.5
PROT 2330 Steam Plant Operation III 6.0
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Solar Hydronic Systems (SSHSD)

Award: Career certificate
Program location: Washington County Technology Center

This career certificate provides students with knowledge of solar hot water heating, solar storage systems, and heat distribution. NOTE: SNRG courses do not count toward PROT degrees; this career certificate leads to a general studies degree.

## Requirements for Solar Hydronic Systems career certificate ( 24.0 credit hrs.)

Courses
PROT $1250 \quad$ Basic Electricity for Power and Process 6.0
PROT 1302 Stationary Engineering I 3.0
CNST $1110 \quad$ Construction Safety (10-Hour) 1.0
HVAC $1020 \quad$ Refrigeration Shop Practices 3.0
SNRG 1213 Solar Thermal Seminar 1.0
SNRG $1260 \quad$ Solar Water Systems Design 4.5

SNRG 1265 Solar Hydronic Systems 4.5
SNRG $1270 \quad$ Solar Water Installation - Overview 1.0
SNRG 1271 Solar Water Install 1 - Panels 1.5
SNRG 1272 Solar Water Install 2 - Storage 1.5
SNRG $1273 \quad$ Solar Water Install 3 - Piping 1.5

## Stationary Engineer (PRESD)

Award: Career certificate
Program location: Washington County Technology Center
This career certificate provides enhanced skills required for understanding the shift work and procedures required in the operation and maintenance of boilers and auxiliary equipment used in the power and process industries.

## Requirements for Stationary Engineer career certificate ( 32.5 credit hrs.)

## Courses

PROT $1250 \quad$ Basic Electricity for Power and Process 6.0
PROT 1302 Stationary Engineering I 3.0
PROT 2302 Stationary Engineering II 4.0
PROT 2310 Steam Plant Operation I 4.5
PROT 2320 Steam Plant Operation II 4.5
PROT 2330 Steam Plant Operation III 6.0
WORK $1401 \quad$ Employability Skills for Process, Power, and 4.5
Energy-Related Fields

## Sustainable Energy Technology

Award: Career certificate
Program location: Fort Omaha Campus, South Omaha Campus
MCC offers several career certificates related to sustainable energy technology. These career certificates are summarized here and listed in the program areas in which they are granted.
See a complete list of Sustainable Energy Technology courses (p. 232)

## Sustainable Energy Technology Options

Home Energy Professional [Weatherization] (26.0 credit hrs.)
Home Energy Professional [Weatherization] (CHECC) (p. 45)
Solar Air Systems ( 24.5 credit hrs.)
Solar Air Systems (SASSD) (p. 45)
Solar Electric Systems ( 24.0 credit hrs.)
Solar Electric Systems (SESSD) (p. 50)
Solar Heating Systems ( 25.0 credit hrs.)
Solar Heating Systems (SHSSD) (p. 52)
Solar Hydronic Systems ( 24.0 credit hrs.)
Solar Hydronic Systems (SSHSD) (p. 62)
Solar Technology ( $\mathbf{2 4 . 0}$ credit hrs.)
Solar Technology (STSSD) (p. 45)
Solar Water Systems ( 24.0 credit hrs.)
Solar Water Systems (SWSSD) (p. 60)

## Utility Line Technician

This program prepares students to enter the power utility industry. The coursework instructs students 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.
Degree: Associate in Applied Science
Utility Line Technician

## Utility Line Technician (UTAAS)

Award: Associate in applied science degree
Program location: Applied Technology Center
This degree prepares students to enter the power utility industry. The coursework instructs students in the theory and practical application to install and repair power lines; climb poles and towers; make transformer connections; and operate diggerderrick equipment, backhoes, trenchers, cable stringing equipment, and basket trucks.

Entrance into the Utility Line Technician program is determined by an application process. Contact an academic advisor or faculty member to acquire an
application packet. Applications can also be completed online at
www.mccneb.edu/util.

| Graduation Requirements |  |
| :--- | :--- |
| General education | 27.0 |
| Major requirements | 61.0 |
| Electives | $8.0-12.5$ |
| Total credit hours required | $96.0-100.5$ |

## General education requirements ( 27.0 credit hrs.)

Communications

$$
\begin{array}{ll}
\text { English level I } & 4.5 \\
\text { English level II } & 4.5
\end{array}
$$

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

## Humanities/social sciences

Humanities/social sciences
See Humanities/social sciences course options (p. 25)
PSYC 1000 is recommended.
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
MATH 1240 is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5
Major requirements for Utility Line Technician (69.073.5 credit hrs.)

## Courses

| UTIL 1010 | Pole Climbing | 4.5 |
| :---: | :---: | :---: |
| UTIL 1020 | Electricity 1 © | 5. |
| UTIL 1030 | Ropes, Rigging, and Safety® | 4. |
| UTIL 1110 | Line Construction ${ }^{\text {® }}$ | 5.5 |
| UTIL 1240 | Underground Distribution Systems 1® | 5.5 |
| UTIL 2020 | Transformer Theory® | 5. |
| UTIL 2030 | Secondary Electrical Systems® | 4.5 |
| UTIL 2110 | Line Construction II® | 5.5 |
| UTIL 2210 | Overhead Distribution Systems \|® | 5.5 |
| UTIL 2220 | Overhead Distribution Systems II® | 5. |
| UTIL 2230 | Distribution Systems Maintenance | 4.5 |
| UTIL 2240 | Underground Distribution Systems II® | 4.5 |
| Select 8.0 credit hours of electives from the following: |  |  |
| ELTR 1200 | Basic Electricity | 6. |
| ELTR 1210 | Residential Wiring | 9.0 |


| INCT 1000 | Industrial Safety and Health | 4.5 |
| :--- | :--- | :--- |
| INCT 1212 | Motor and Machine Controls | 9.0 |
| INCT 2050 | Problem-Solving | 3.0 |
| UTIL 2310 | Substation Systems | 4.0 |
| UTIL 2410 | Advanced Metering Systems | 4.0 |
| UTIL 2981 | Internship | 8.0 |

ELTR 1210: Additional prerequisite(s) may be required.
A 1.0 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 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.

## Curriculum Plan

Below is a suggested guide for the traditional and weekend options and a suggested guide 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 improves students' chances of being accepted into the program. Students should contact Student Services to design a plan of study.

## Traditional Track

First Year
First quarter (Fall)
UTIL $1010 \quad$ Pole Climbing $\quad 4.5$
UTIL 1020 Electricity l 10.5
UTIL 1030 Ropes, Rigging, and Safety® 4.5
UTIL 1110 Line Construction 1 © 5.5
Second quarter (Winter)
UTIL $1240 \quad$ Underground Distribution Systems 1 © 5.5
UTIL $2020 \quad$ Transformer Theory $\quad 5.5$
UTIL 2110 Line Construction II® 5.5
UTIL $2210 \quad$ Overhead Distribution Systems |ه
Third quarter (Spring)
UTIL 2030 Secondary Electrical Systems® 4.5
UTIL $2220 \quad$ Overhead Distribution Systems II® 5.5
UTIL $2230 \quad$ Distribution Systems Maintenance 4.5
UTIL $2240 \quad$ Underground Distribution Systems II® 4.5
Fourth quarter (Summer)
Elective(s)
Weekend Track
First Year
First quarter (Spring)
UTIL $1010 \quad$ Pole Climbing $\quad 4.5$

UTIL $1030 \quad$ Ropes, Rigging, and Safety® 4.5
Second quarter (Summer)

| UTIL 1020 | Electricity I৫ | 5.5 |
| :--- | :--- | :--- |
| UTIL 1110 | Line Construction I৫ | 5.5 |
| Third quarter (Fall) |  |  |
| UTIL 1240 | Underground Distribution Systems l৫ | 5.5 |
| UTIL 2210 | Overhead Distribution Systems I৫ | 5.5 |


| Fourth quarter (Winter) |  |  |
| :--- | :--- | :--- |
| UTIL 2020 | Transformer Theory® | 5.5 |
| UTIL 2110 | Line Construction II® | 5.5 |

UTIL 2110 Line Construction II®
Second Year
Fifth quarter (Spring)
UTIL 2030 Secondary Electrical Systems® 4.5

UTIL $2220 \quad$ Overhead Distribution Systems II৫ 5.5
Sixth quarter (Summer)
UTIL $2230 \quad$ Distribution Systems Maintenance 4.5
UTIL $2240 \quad$ Underground Distribution Systems II® 4.5
Internship
UTIL 2981 Internship

UTIL 2981 can be taken after one year of study in the weekend option.

## Recent High School Graduate Track

This track would allow students to satisfy all of the general education requirements and the elective requirements for the UTAAS degree. Students completing this track would be given preference in the admission process.

## First quarter (Fall)

| ELTR 1200 | Basic Electricity | 6.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {© }}$ | 4.5 |
|  | Mathematics | 4.5 |
| Second quarter (Winter) |  |  |
| ELTR 1210 | Residential Wiring | 9.0 |
|  | English level I | 4.5 |
|  | Humanities/social sciences | 4.5 |
| Third quarter (Spring) |  |  |
|  | English level II | 4. |
| HMRL 1010 | Human Relations Skills - © | 4.5 |
| INCT 1000 | Industrial Safety and Health | 4.5 |

## Welding Technology

This program provides basic to advanced training in the major welding processes. Students completing the program are exposed to standard welding procedures used in construction and industry as well as established safety standards and measures. A fabrication project requires students to use their welding skills,
including the reading of welding blueprints. Students graduating from the Welding Technology program earn the qualification/certification of their choice, which they can transfer from job to job.

## Degree: Associate in Applied Science

Welding Technology

## Certificate of Achievement:

Welding Technology
Manufacturing
Pipe
Structural
Career Certificate:
Gas Metal Arc Welding
Gas Tungsten Arc Welding
Shielded Metal Arc Welding
Pipe Welding

## Welding Technology (WEAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree provides basic to advanced training in the major welding processes. Students completing the program are exposed to standard welding procedures used in construction and industry as well as established safety standards and measures. A fabrication project that requires students to use their welding skills, including the reading of welding blueprints, is required. Students graduating from the Welding Technology program earn the qualification/certification of their choice, which they can transfer from job to job.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 70.0 |
| Electives | 11.0 |
| Total credit hours required | 108.0 |
| General education requirements (27.0 credit hrs.) |  |
| Communications |  |
|  |  |
|  | English level I |

See Communications course options (p. 25)
ENGL 1220 and ENGL 1240 are recommended.

| Humanities/social sciences |
| :---: |
| Humanities/social sciences |

See Humanities/social sciences course options (p. 25)

## Major requirements for Welding Technology (70.0 credit hrs.)

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.

## Courses

DRAF 1100 AutoCAD Fundamentals 9.0
WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
WELD $1410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless I $\quad 3.0$
WELD $1420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum I 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
WELD $1510 \quad$ Shielded Metal Arc Welding (Stick) - Vertical 3.0
WELD 1700 Introductory Fabrication 3.0
WELD $2200 \quad$ Gas Metal Arc Welding (MIG) - Steel II 3.0
WELD $2220 \quad$ Gas Metal Arc Welding (MIG) - Stainless 3.0
WELD $2230 \quad$ Gas Metal Arc Welding (MIG) - Aluminum 3.0
WELD $2240 \quad$ Flux-Cored Arc Welding I 3.0
WELD $2242 \quad$ Submerged Arc and Metal-Cored Welding 3.0
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2500 \quad$ Shielded Metal Arc Welding (Stick) - Horizontal 3.0
WELD 2510 SMAW (Stick) - Overhead 3.0
WELD $2710 \quad$ Industrial Fabrication Project 3.0
WELD $2810 \quad$ Welder Pre-Qualification 3.0
WELD $2820 \quad$ Welder Qualification (Certification) 1.0

## Electives for Welding Technology (11.0 credit hrs.)

## Courses

Select 11.0 credit hours from the following:
BSAD 1000 Introduction to Business $\mathcal{B} \quad 4.5$
BSAD $2610 \quad$ Labor and Management Relations 4.5
ELEC $1000 \quad$ Basic Electricity/Electronics 9.0
ELTR $1200 \quad$ Basic Electricity $\quad 6.5$
INCT $1000 \quad$ Industrial Safety and Health 4.5
INCT $2070 \quad$ Hydraulics and Pneumatics 4.0
WELD $2241 \quad$ Flux-Cored Arc Welding II 3.0
WELD $2410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless 3.0
WELD $2420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum 3.0
WELD $2520 \quad$ Shielded Metal Arc Welding (Stick) - Pipe I 3.0
WELD $2530 \quad$ Shielded Metal Arc Welding (Stick) - Pipe II 3.0
WELD $2540 \quad$ Shielded Metal Arc Welding (Stick) - Pipe III 3.0
WELD $2600 \quad$ Gas Shielded Arc Welding - Pipe 3.0
WELD $2900 \quad$ Special Topics in Welding Variable
Attendance at the first class session is mandatory for all welding lab sections.

| Curriculum Plan - One-and-a-Half Years of Full-Time Study |  |  |
| :---: | :---: | :---: |
| Below is a suggested guide for students planning careers 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 |  |  |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| WELD 1000 | Print Reading for Welders | 3.0 |
| WELD 1100 | Industrial Cutting Processes | 3.0 |
| WELD 1200 | Gas Metal Arc Welding (MIG) - Steel I | 3.0 |
| WELD 2200 | Gas Metal Arc Welding (MIG) - Steel II | 3.0 |
| Second quarter |  |  |
|  | Mathematics | 4.5 |
| WELD 2220 | Gas Metal Arc Welding (MIG) - Stainless | 3.0 |
| WELD 2230 | Gas Metal Arc Welding (MIG) - Aluminum | 3.0 |
| WELD 2240 | Flux-Cored Arc Welding I | 3.0 |
| WELD 2242 | Submerged Arc and Metal-Cored Welding | 3.0 |
| Third quarter |  |  |
| HMRL 1010 | Human Relations Skills $\uparrow$ © | 4.5 |
| WELD 1500 | Shielded Metal Arc Welding (Stick) - Flat | 3.0 |
| WELD 1510 | Shielded Metal Arc Welding (Stick) - Vertical | 3.0 |
| WELD 2500 | Shielded Metal Arc Welding (Stick) Horizontal | 3.0 |
| WELD 2510 | SMAW (Stick) - Overhead | 3.0 |
| Fourth quarter |  |  |
|  | English level I | 4.5 |
| WELD 1300 | Oxy-Acetylene Welding | 3.0 |
| WELD 1400 | Gas Tungsten Arc Welding (TIG) - Steel I | 3.0 |
| WELD 1410 | Gas Tungsten Arc Welding (TIG) - Stainless I | 3.0 |
| WELD 1700 | Introductory Fabrication | 3.0 |
| Second Year |  |  |
| Fifth quarter |  |  |
| DRAF 1100 | AutoCAD Fundamentals | 9.0 |
|  | Electives | 1.0-6.5 |
| WELD 1420 | Gas Tungsten Arc Welding (TIG) - Aluminum I | 3.0 |
| Sixth quarter |  |  |
|  | Electives | 1.0-6.5 |
|  | English level II | 4.5 |
| WELD 2400 | Gas Tungsten Arc Welding (TIG) - Steel II | 3.0 |
| WELD 2710 | Industrial Fabrication Project | 3.0 |
| Seventh quarter |  |  |
|  | Humanities/social sciences | 4.5 |
| WELD 2810 | Welder Pre-Qualification | 3.0 |
| WELD 2820 | Welder Qualification (Certification) | 1.0 |
| Curriculum Plan - Two Years of Full-Time Study |  |  |
| Below is a suggested guide for students planning careers in welding technology after two years of full-time study. |  |  |
| First Year |  |  |
| First quarter |  |  |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| WELD 1000 | Print Reading for Welders | 3.0 |
| WELD 1100 | Industrial Cutting Processes | 3.0 |
| WELD 1200 | Gas Metal Arc Welding (MIG) - Steel I | 3.0 |
| Second quarter |  |  |
|  | Mathematics | 4.5 |
| WELD 2200 | Gas Metal Arc Welding (MIG) - Steel II | 3.0 |
| WELD 2220 | Gas Metal Arc Welding (MIG) - Stainless | 3.0 |
| WELD 2230 | Gas Metal Arc Welding (MIG) - Aluminum | 3.0 |
| Third quarter |  |  |
| HMRL 1010 | Human Relations Skills $\uparrow$ © | 4.5 |
| WELD 1500 | Shielded Metal Arc Welding (Stick) - Flat | 3.0 |
| WELD 2240 | Flux-Cored Arc Welding I | 3.0 |
| WELD 2242 | Submerged Arc and Metal-Cored Welding | 3.0 |


| Fourth quarter |  |  |
| :--- | :--- | ---: |
|  | English level I | 4.5 |
| WELD 1510 | Shielded Metal Arc Welding (Stick) - Vertical | 3.0 |
| WELD 2500 | Shielded Metal Arc Welding (Stick) - | 3.0 |
| WELD 2510 | Horizontal | 3.0 |
| Second Year | SMAW (Stick) - Overhead |  |
| Fifth quarter |  |  |
|  | English level II | 4.5 |
| WELD 1300 | Oxy-Acetylene Welding | 3.0 |
| WELD 1400 | Gas Tungsten Arc Welding (TIG) - Steel I | 3.0 |
| WELD 1700 | Introductory Fabrication | 3.0 |
| Sixth quarter |  |  |
| DRAF 1100 | AutoCAD Fundamentals | 9.0 |
| WELD 1410 | Gas Tungsten Arc Welding (TIG) - Stainless I | 3.0 |
| Seventh quarter |  |  |
|  | Electives | $3.0-6.5$ |
|  | Humanities/social sciences | 4.5 |
| WELD 1420 | Gas Tungsten Arc Welding (TIG) - Aluminum | 3.0 |
| WELD 2400 | I Gas Tungsten Arc Welding (TIG) - Steel II | 3.0 |
| Eighth quarter |  |  |
|  | Electives | $3.0-6.5$ |
| WELD 2710 | Industrial Fabrication Project | 3.0 |
| WELD 2810 | Welder Pre-Qualification | 3.0 |
| WELD 2820 | Welder Qualification (Certification) | 1.0 |

## Welding Technology (WELCE)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement provides students with basic skills in oxyacetylene, shielded metal arc, gas metal arc, and gas tungsten arc welding. The program is primarily devoted to skill building, which provides students with the opportunity for employment in local industry.

## Graduation Requirements

General education 13.5
Major requirements 21.0
Option and elective requirements 21.0
Total credit hours required 55.5
General education requirements ( 13.5 credit hrs.) Communications

English level I
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)

## Major requirements for Welding Technology (21.0 credit hrs.)

## Courses

WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
WELD $2200 \quad$ Gas Metal Arc Welding (MIG) - Steel II 3.0

## Option and elective requirements for Welding Technology ( 21.0 credit hrs.)

The Welding Technology certificate options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

## Manufacturing ( 21.0 credit hrs.)

Welding Technology - Manufacturing (WELMO) (p. 66)
Pipe (21.0 credit hrs.)
Welding Technology - Pipe (WELPO) (p. 66)
Structural (21.0 credit hrs.)
Welding Technology - Structural (WELSO) (p. 66)

## Welding Technology - Manufacturing (WELMO)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement provides students with basic welding skills needed to work in manufacturing industries. Students completing the program are exposed to print reading with special focus on interpreting welding symbols as well as skill training in plasma cutting; gas metal arc welding (MIG); 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 and elective requirements 21.0
Total credit hours required 55.5

## General education requirements

See General education requirements for Welding Technology (p. 65)

## Major requirements for Welding Technology

See Major requirements for Welding Technology (p. 65)
Option requirements for Welding Technology Manufacturing ( 15.0 credit hrs.)

## Courses

WELD $1410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless I 3.0
WELD $1420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum 3.0
WELD $2220 \quad$ Gas Metal Arc Welding (MIG) - Stainless 3.0
WELD $2230 \quad$ Gas Metal Arc Welding (MIG) - Aluminum 3.0
WELD $2240 \quad 3.0$
Electives for Welding Technology - Manufacturing (6.0 credit hrs.)

## Courses

WELD 1300 Oxy-Acetylene Welding 3.0
WELD $2241 \quad$ Flux-Cored Arc Welding II 3.0
WELD $2242 \quad$ Submerged Arc and Metal-Cored Welding 3.0
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless 3.0
WELD $2420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum 3.0
WELD $2600 \quad$ Gas Shielded Arc Welding - Pipe 3.0
WELD $2810 \quad$ Welder Pre-Qualification 3.0
WELD $2820 \quad$ Welder Qualification (Certification) 1.0
The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Welding Technology - Pipe (WELPO)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement provides students with basic welding skills needed to work in industries where welding of low-pressure pipe is required. Students who complete the program are exposed to print reading with special focus on interpreting welding symbols as well as skill training in oxy-fuel 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 <br> 13.5

Major requirements ..... 21.0
Option and elective requirements ..... 21.0
Total credit hours required ..... 55.5

## General education requirements

See General education requirements for Welding Technology (p. 65)
Major requirements for Welding Technology
See Major requirements for Welding Technology (p. 65)

## Option requirements for Welding Technology - Pipe ( 15.0 credit hrs.)

## Courses

WELD $1510 \quad$ Shielded Metal Arc Welding (Stick) - Vertical 3.0
WELD $2500 \quad$ Shielded Metal Arc Welding (Stick) - 3.0
WELD $2510 \quad 3.0$
WELD $2520 \quad$ Shielded Metal Arc Welding (Stick) - Pipe I 3.0
WELD $2530 \quad$ Shielded Metal Arc Welding (Stick) - Pipe II 3.0
Electives for Welding Technology - Pipe ( 6.0 credit hrs.)
Courses
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless I 3.0
WELD $1420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum 3.0
WELD $2220 \quad$ Gas Metal Arc Welding (MIG) - Stainless 3.0
WELD $2230 \quad$ Gas Metal Arc Welding (MIG) - Aluminum 3.0
WELD $2240 \quad$ Flux-Cored Arc Welding I 3.0
WELD $2241 \quad 3.0$
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless 3.0
WELD $2420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum 3.0
WELD $2540 \quad$ Shielded Metal Arc Welding (Stick) - Pipe III 3.0
WELD $2810 \quad$ Welder Pre-Qualification 3.0
WELD $2820 \quad$ Welder Qualification (Certification) 1.0
The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Welding Technology - Structural (WELSO)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate of achievement provides students with basic welding skills needed to do structural welding either in construction (e.g., as an ironworker) or as a structural steel fabricator. Students completing the program are exposed to print reading with special focus on interpreting welding symbols as well as skill training in oxy-fuel 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 and elective requirements | 21.0 |
| Total credit hours required | 55.5 |

## General education requirements

See General education requirements for Welding Technology (p. 65)

## Major requirements for Welding Technology

See Major requirements for Welding Technology (p. 65)
Option requirements for Welding Technology -
Structural ( 15.0 credit hrs.)

## Courses

WELD $1510 \quad$ Shielded Metal Arc Welding (Stick) - Vertical 3.0
WELD $2240 \quad$ Flux-Cored Arc Welding I 3.0
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2500 \quad$ Shielded Metal Arc Welding (Stick) - 3.0
WELD 2510 SMAW (Stick) - Overhead 3.0

## Electives for Welding Technology - Structural (6.0 credit hrs.)

## Courses

## Select 6.0 credits from the following:

| WELD 1410 | Gas Tungsten Arc Welding (TIG) - Stainless I | 3.0 |
| :--- | :--- | :--- |
| WELD 1420 | Gas Tungsten Arc Welding (TIG) - Aluminum I | 3.0 |
| WELD 2241 | Flux-Cored Arc Welding II | 3.0 |
| WELD 2242 | Submerged Arc and Metal-Cored Welding | 3.0 |
| WELD 2410 | Gas Tungsten Arc Welding (TIG) - Stainless II | 3.0 |
| WELD 2420 | Gas Tungsten Arc Welding (TIG) - Aluminum II | 3.0 |
| WELD 2520 | Shielded Metal Arc Welding (Stick) - Pipe I | 3.0 |
| WELD 2530 | Shielded Metal Arc Welding (Stick) - Pipe II | 3.0 |
| WELD 2540 | Shielded Metal Arc Welding (Stick) - Pipe III | 3.0 |
| WELD 2810 | Welder Pre-Qualification | 3.0 |
| WELD 2820 | Welder Qualification (Certification) | 1.0 |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Gas Metal Arc Welding (WGMSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate is for students wishing to concentrate their studies on wirebased processes, procedures, and techniques. Students learn to read prints and interpret welding symbols; safely and skillfully use oxy-fuel, plasma, and air carbon arc cutting processes; safely and skillfully use gas metal arc and fluxcored 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 Gas Metal Arc Welding career certificate ( 27.0 credit hrs.)

## Courses

WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1200 \quad$ Gas Metal Arc Welding (MIG) - Steel I 3.0
WELD $2200 \quad$ Gas Metal Arc Welding (MIG) - Steel II 3.0
WELD $2220 \quad$ Gas Metal Arc Welding (MIG) - Stainless 3.0
WELD $2230 \quad$ Gas Metal Arc Welding (MIG) - Aluminum 3.0
WELD $2240 \quad$ Flux-Cored Arc Welding I 3.0
WELD $2241 \quad$ Flux-Cored Arc Welding II 3.0
WELD $2242 \quad$ Submerged Arc and Metal-Cored Welding 3.0

## Gas Tungsten Arc Welding (WGTSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate is for students wishing to concentrate their studies on gas tungsten arc welding (TIG) processes, procedures, and techniques. Students 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 with gas tungsten arc welding; and produce sound fillet and groove welds using pulsed gas tungsten arc welding.

## Requirements for Gas Tungsten Arc Welding career certificate ( 27.0 credit hrs.)

## Courses

WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
WELD $1410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless I $\quad 3.0$
WELD $1420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum I 3.0
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2410 \quad$ Gas Tungsten Arc Welding (TIG) - Stainless II 3.0
WELD $2420 \quad$ Gas Tungsten Arc Welding (TIG) - Aluminum II 3.0

## Shielded Metal Arc Welding (WSMSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate is for students wishing to concentrate their studies on the shielded metal arc welding process, procedures, and techniques. Students learn to read prints and interpret welding symbols; safely and skillfully use oxy-fuel, 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 Shielded Metal Arc Welding career certificate ( 27.0 credit hrs.)

## Courses

WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
WELD $1510 \quad$ Shielded Metal Arc Welding (Stick) - Vertical 3.0
WELD $2500 \quad$ Shielded Metal Arc Welding (Stick) - 3.0
Horizontal
WELD $2510 \quad 3.0$
WELD $2520 \quad$ Shielded Metal Arc Welding (Stick) - Pipe I 3.0
WELD $2530 \quad$ Shielded Metal Arc Welding (Stick) - Pipe II 3.0

## Pipe Welding (WPWSD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate is for students wishing to concentrate their studies on SMAW (stick)- and GTAW (TIG)-based processes, procedures, and techniques as they are applied to pipe welding. Students learn to read prints and interpret welding symbols; safely and skillfully use oxy-fuel, 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 career certificate (30.0 credit hrs.)

## Courses

WELD $1000 \quad$ Print Reading for Welders 3.0
WELD $1100 \quad$ Industrial Cutting Processes 3.0
WELD $1300 \quad$ Oxy-Acetylene Welding 3.0
WELD $1400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel I 3.0
WELD $1500 \quad$ Shielded Metal Arc Welding (Stick) - Flat 3.0
WELD $1510 \quad$ Shielded Metal Arc Welding (Stick) - Vertical 3.0
WELD $2400 \quad$ Gas Tungsten Arc Welding (TIG) - Steel II 3.0
WELD $2510 \quad$ SMAW (Stick) - Overhead 3.0
WELD $2520 \quad$ Shielded Metal Arc Welding (Stick) - Pipe I 3.0
WELD $2530 \quad$ Shielded Metal Arc Welding (Stick) - Pipe II 3.0

## Business and Human Services

## Who We Are

The Business and Human Services department includes curriculum in accounting, business, entrepreneurship, financial planning, human services, legal studies, and marketing. Curriculum in related areas such as economics, insurance, international business, supply chain management, paralegal, pre-law, and real estate are also included in the department.

## Our Mission Statement

The Business and Human Services department of Metropolitan Community College provides quality learning opportunities in commerce and related studies that facilitate commercial development within the community, contribute to individual employability, and prepare learners for further academic pursuits in business disciplines.

## Accounting/Bookkeeping

Bookkeeping, accounting, and auditing clerks are financial record keepers. They update and maintain accounting records, including those that calculate expenditures, receipts, accounts payable and receivable, and profits and loss. Bookkeepers have roles in both small businesses' and large companies' accounting departments. Responsibilities range from posting transactions and balancing to verifying and reconciling accounts. They ensure the completeness and accuracy of data and code documents according to company procedures. Auditors verify postings and documents to assure accuracy and completeness. Though bookkeeping, accounting, and auditing clerks generally do not require a bachelor's degree, to become a Certified Public Accountant (CPA) requires a bachelor's. The requirements to become a CPA are set by each state board of accountancy and include completing a program of study in accounting at a college or university, passing the Uniform CPA Exam, and obtaining a specific amount of professional work experience in public accounting (the required amount and type of experience varies according to licensing jurisdiction).
The skills taught in the accounting program are used by professionals in business management, public administration, entrepreneurship, finance, and other commercial fields in order to forecast and control commercial endeavors.
Bookkeeping, accounting, and auditing clerks work in an office environment. They may experience eye and muscle strain, backaches, headaches, and repetitive motion injuries from using computers on a daily basis. Clerks may have to sit for extended periods while reviewing detailed data.
Many bookkeeping, accounting, and auditing clerks work regular business hours and a standard 40-hour week, although some may work occasional evenings and weekends.

Bookkeeping, accounting, and auditing clerks may work longer hours to meet deadlines at the end of the fiscal year, during tax time, or when monthly or quarterly financial reports are being prepared. Extended work hours may also occur when yearly accounting audits are performed. Additionally, those who work in hotels, restaurants, and stores may put in overtime during peak holiday and vacation seasons.

## Degree: Associate in Applied Science

Accounting
Certificate of Achievement:
Bookkeeping (leads to general studies degree)

## Accounting (ACAAS)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This degree aids students in developing skills, knowledge, and aptitudes necessary to seek employment in paraprofessional accounting positions. The program encompasses a broad range of accounting, business topics, and applications.

## Graduation Requirements

| General education | 27.0 |  |  |
| :--- | :--- | :---: | :---: |
| Major requirements | $72.5-74.0$ |  |  |
| Total credit hours required | $99.5-101.0$ |  |  |
| General education requirements (27.0 credit hrs.) |  |  |  |
| Communications |  |  |  |
| English level I |  |  |  |
|  | English level II |  |  |

See Communications course options (p. 25)

## Humanities/social sciences

Select one course from the following:
ARTS $1110 \quad$ Art History-Ancient to Gothic - © 4.5

ARTS $1120 \quad$ Art History-Renaissance to Modern $\because \quad 4.5$
ENGL $2470 \quad$ Introduction to Women's Literature 4.5
ENGL $2530 \quad$ Ethnic Literature 4.5
ENGL $2610 \quad$ British Literature I- $\quad 4.5$
ENGL $2620 \quad$ British Literature II 4.5
GEOG 1050 Introduction to Human Geography $\mathcal{B} \quad 4.5$
HIST $1050 \quad$ Introduction to Black History $\quad 4.5$
HIST $1110 \quad$ World Civilization from Prehistory to 1500 - $3 \quad 4.5$
HIST $1120 \quad$ World Civilization from 1500 to Present $\smile$ © 4.5
HIST $2050 \quad$ Modern Europe since $1815 \quad 4.5$
HUMS $1000 \quad$ Humanities through the Arts® 4.5
MUSC 1010 Introduction to Music I 4.5
MUSC $1020 \quad$ Introduction to Music II 4.5
PHIL 2030 Introduction to Ethics 4.5
PSYC $1010 \quad$ Introduction to Psychology © 4.5
SOCI 1010 Introduction to Sociology © 4.5
SOCI 1250 Introduction to Anthropology 3
SOCI $2060 \quad$ Multicultural Issues $\begin{array}{lll}\bullet & 4.5\end{array}$
THEA 1000 Introduction to the Theatre $\smile$ © 4.5
PHIL 2030 is recommended.
Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics 4.5
Take MATH 1220 or higher level MATH course.
Other
HMRL $1010 \quad$ Human Relations Skills $\triangleleft$ © 4.5
INFO 1001 Information Systems and Literacy ${ }^{-}$© 4.5

## Major requirements for Accounting (72.5-74.0 credit hrs.)

Since the core courses for the Accounting and Business Management degrees are interchangeable, students can easily change their degree of choice during the first year of courses.

## Courses

ACCT 1100 Accounting 1 © 4.0
ACCT 1110 Accounting II- • 4.0
ACCT 1120 Accounting III准• 4.0
ACCT 2120 Intermediate Accounting I 4.0
ACCT 2130 Intermediate Accounting II 4.0
ACCT 2140 Intermediate Accounting III 4.0
ACCT $2230 \quad$ Microcomputer Business Applications 4.0
ACCT $2330 \quad$ Managerial Cost Accounting 4.0
ACCT $2940 \quad$ Business Plan Capstone 1.5
BSAD 1000 Introduction to Business ${ }^{\text {B }} 4.5$

| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
| :---: | :---: | :---: |
| BSAD 1100 | Business Law lo | 4.5 |
| BSAD 1110 | Business Law IIß | 4.5 |
| BSAD 2100 | Principles of Management $\mathcal{\beta}$ | 4.5 |
| ECON 1000 | Macroeconomics ${ }^{\text {® }}$ | 4.5 |
| ECON 1100 | Microeconomics $\checkmark$ ¢ | 4.5 |
| FINA 2230 | Business Finance $\bigcirc$ | 4.5 |
| ACCT 2120 (Fall only); ACCT 2120 can be taken concurrently with ACCT 1120. |  |  |
| ACCT 2130 (Winter only); ACCT 2140 (Spring only); ACCT 2330 (Fall and Spring only) |  |  |
| FINA 2230: It pays to be prepared. It is strongly recommended that students complete math requirements early in the program of study. Taking FINA 2230 immediately after completing accounting courses is suggested. Additional prerequisite(s) may be required. |  |  |
| Select one course from the following: |  |  |
| ACCT 1060 | Payroll Accounting ${ }^{\text {P }}$ | 3.0 |
| ACCT 1070 | Individual Income Tax Accounting | 4.0 |
| ACCT 1210 | Accounting with QuickBooks | 3.0 |
| ACCT 2981 | Internship in Accounting | variable |
| FINA 1200 | Wealth-Building Fundamentals and Personal Finance ${ }^{-3}$ | 4.5 |
| INFO 1212 | Spreadsheets $\checkmark$ | 4.5 |
| Curriculum Guide |  |  |
| Below is a suggested guide for students planning to seek employment in accounting after two years of full-time study. |  |  |
| First Year |  |  |
| First quarter |  |  |
| ACCT 1100 | Accounting 1 | 4.0 |
| BSAD 1000 | Introduction to Business $\checkmark$ © | 4.5 |
| ENGL 1010 | English Composition 1 B | 4.5 |
|  | OR |  |
| ENGL 1230 | Business Writing ${ }^{\text {B }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy- ${ }^{\text {® }}$ - | 4.5 |
| MATH 1220 | Business Mathematics ${ }^{*}$ | 4.5 |
| Second quarter |  |  |
| ACCT 1110 | Accounting $\\|$ © | 4.0 |
| ECON 1000 | Macroeconomics ${ }_{\text {® }}$ | 4.5 |
| ENGL 1020 | English Composition II- $\overbrace{\text { © }}$ | 4.5 |
|  | OR |  |
| ENGL 1240 | Oral and Written Reports $\uparrow$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\underbrace{}_{\text {© }}$ | 4.5 |
| Third quarter |  |  |
| ACCT 1120 | Accounting $\mathrm{III} \bigcirc$ © | 4.0 |
| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
| ECON 1100 | Microeconomics ${ }^{\text {® }}$ | 4.5 |
|  | Humanities/social sciences elective | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| ACCT 2120 | Intermediate Accounting I | 4.0 |
| ACCT 2330 | Managerial Cost Accounting | 4.0 |
| BSAD 1100 | Business Law lı | 4.5 |
| BSAD 2100 | Principles of Management $\mathcal{B}$ | 4.5 |
| ACCT 2120 (Fall only) |  |  |
| ACCT 2330 (Fall and Spring only) |  |  |
| Sixth quarter |  |  |
| ACCT 2130 | Intermediate Accounting II | 4.0 |
| ACCT 2230 | Microcomputer Business Applications | 4.0 |
| BSAD 1110 | Business Law IIM | 4.5 |
| ACCT 2130 (Winter only) |  |  |
| Seventh quarter |  |  |
| ACCT 2140 | Intermediate Accounting III | 4.0 |
| ACCT 2940 | Business Plan Capstone | 1.5 |
|  | Elective requirement | 3.0-4.5 |
| FINA 2230 | Business Finance ${ }^{\text {- }}$ | 4.5 |
| ACCT 2140 ( | only) |  |

ACCT 2120 (Fall only); ACCT 2120 can be taken concurrently with ACCT 1120.
ACCT 2130 (Winter only); ACCT 2140 (Spring only); ACCT 2330 (Fall and Spring (
complete math requirements early in the program of study. Taking FINA 2230
immediately after completing accounting courses is suggested. Additional prerequisite(s) may be required.

## Curriculum Guide

Below is a suggested guide for students planning to seek employment in accounting after two years of full-time study.

First quarter

INFO 1001 Information Systems and Literacy © 4.5

ECON 1000 Macroeconomics $\bullet$ © 4.5
ENGL 1020 English Composition IIß © 4.5

ENGL $1240 \quad$ Oral and Written Reports ${ }^{*}$ 4.5

ACCT 1120 Accounting III®® 4.0
BSAD $1010 \quad$ Principles of Marketing $\quad 4.5$

Humanities/social sciences elective 4.5

Fifth quarter
ACCT 2120 Intermediate Accounting I 4.0
ACCT $2330 \quad$ Managerial Cost Accounting 4.0
BSAD 1100 Business Law l® 4.5
BSAD $2100 \quad 4.5$

ACCT 2330 (Fall and Spring only)
Sixth quarter
ACCT $2130 \quad$ Intermediate Accounting II 4.0
ACCT $2230 \quad$ Microcomputer Business Applications 4.0
BSAD 1110 Business Law IIß - 4.5
ACCT 2130 (Winter only)

ACCT 2140 (Spring only)

## Bookkeeping (BKPCE)

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

This certificate of achievement provides career preparation in bookkeeping processes. Graduates may seek employment as bookkeepers in business, industry, or government agencies. NOTE: This certificate of achievement leads to a degree in general studies.

## 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.) |  |  |

## Major requirements for Bookkeeping (31.0-32.0 credit hrs.)

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

## Courses

Select one of the following groups:
Group 1:
ACCT $1050 \quad$ Bookkeeping 3.0
ACCT 1100 Accounting l- © 4.0
Group 2
ACCT 1100 Accounting IB $\quad 4.0$
ACCT 1110 Accounting II丹 © 4.0
Also required:
ACCT 1060 Payroll Accounting $७$ B 3.0
ACCT $1210 \quad$ Accounting with QuickBooks 3.0
BSAD 1000 Introduction to Business $\checkmark$ B 4.5
FINA $1200 \quad$ Wealth-Building Fundamentals and Personal 4.5
Finance $-\neq$
Electronic Filing and Calculating ${ }^{\bullet}$ ©
Select one course from the following:
BSAD $1600 \quad$ Principles of Supervision 3 © 4.5
BSAD $2100 \quad$ Principles of Management $४$ B 4.5
BSAD $2600 \quad$ Human Resources Management* 3.5
INFO 1212 Spreadsheets $\checkmark$ B 4.5
The Business program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), an accrediting organization for institutions that support and have their emphasis directed toward excellence in teaching.

## Business Management

The nature of managerial jobs varies as significantly as the range of administrative services required by organizations. Managers coordinate and direct the many support services that allow organizations to operate efficiently. They perform a broad range of duties: payroll, conference planning and travel, information and data processing, secretarial and reception services, materials scheduling and distribution, printing and reproduction, records management, telecommunications management, personal property procurement, and more. They manage support services for organizations as diverse as insurance companies, computer manufacturers, and government offices. Very often, managers are responsible for production processes in manufacturing and benefit from having a business management degree.
Specific duties for these managers vary by degree of responsibility and authority. First-line managers directly supervise a staff that performs various support services. Mid-level managers, on the other hand, develop departmental plans, set goals and deadlines, implement procedures to improve productivity and customer service, and define the responsibilities of supervisory-level managers. Some midlevel administrative services managers oversee first-line supervisors from various departments, including the clerical staff. Mid-level managers also may be involved in the hiring and dismissal of employees, but they generally have no role in the formulation of personnel policy. Some of these managers advance to upper level positions, such as vice president of administrative services, which are discussed in the Occupational Outlook Handbook statement on top executives.
People interested in becoming managers at any function within business organizations should have good leadership and communication skills and be able to establish effective working relationships with many different people, ranging from other managers, supervisors, and professionals to production workers and other employees who support the efforts of the organization. They should be analytical, detail-oriented, flexible, and decisive. They must be able to coordinate several activities at once, quickly analyze and resolve specific problems, and cope with deadlines. A business management education can provide these skills and give students a fundamental understanding of the world of business.
Find more information on managers at www.bls.gov/search/query/results.

## Degree: Associate in Applied Science

Credit Management
Entrepreneurship
Financial Planning and Investment
Financial Services Management
Generalist
Insurance and Risk Management
International Business
Merchandising Management
Operations and Supply Chain Management
Organizational Development
Real Estate
Degree: Associate in Arts
Business Transfer
Certificate of Achievement:
Entrepreneurship
Financial Planning
Financial Studies
International Business
Management Generalist
Marketing
Not-for-Profit Management (leads to general studies degree)
Para-Financial Planner

## Career Certificate:

Customer Service Management (leads to general studies degree)
Entrepreneurship
Financial Studies
General Management
Not-for-Profit Management (leads to general studies degree)
Operations and Supply Chain Management
Organizational Development
Real Estate Entrepreneurship

## Business Management (BMAAS)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online
This degree provides practical application of business principles to a variety of career paths. Most courses also have direct application to life experiences.

## Graduation Requirements

| General education | $26.5-27.0$ |
| :--- | :--- |
| Major requirements | 49.5 |
| Course track offerings | $25.5-32.5$ |
| Total credit hours required | $101.5-109.0$ |

## General education requirements ( $26.5-27.0$ credit hrs.)

## Communications

$$
\begin{array}{ll}
\text { English level I } & 4.5 \\
\text { English level II } & 4.5
\end{array}
$$

See Communications course options (p. 25)

| Humanities/social sciences |  |  |
| :---: | :---: | :---: |
| 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 ${ }^{\text {d }}$ | 4.5 |
| HIST 1110 | World Civilization from Prehistory to 1500-* | 4.5 |
| HIST 1120 | World Civilization from 1500 to Present- © | 4.5 |
| HIST 2050 | Modern Europe since 1815 | 4.5 |
| HUMS 1000 | Humanities through the Arts© | 4.5 |
| MUSC 1010 | Introduction to Music \| | 4.5 |
| MUSC 1020 | Introduction to Music II | 4.5 |
| PHIL 2030 | Introduction to Ethics-3 | 4.5 |
| PHIL 2200 | Introduction to Comparative Religion` | 4.5 |
| PSYC 1010 | Introduction to Psychology © | 4.5 |
| SOCI 1010 | Introduction to Sociology ${ }^{\text {e }}$ - | 4.5 |
| SOCI 1250 | Introduction to Anthropology* ${ }^{\text {a }}$ | 4.5 |
| SOCI 2060 | Multicultural Issues ${ }^{\text {® }}$ | 4.5 |
| THEA 1000 | Introduction to the Theatre $\mathcal{A}$ | 4.5 |
| Quantitative/Numeracy Skills |  |  |
| MATH 1220 | Business Mathematics ${ }^{\text {® }}$ | 4.5 |
| MATH 1220 or higher level MATH course |  |  |
| See Quantitative/numeracy skills course options (p. 27) |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills ${ }_{\text {© © }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {e }}$ - | 4.5 |
|  | OR |  |
| ACCT 2230 | Microcomputer Business Applications | 4.0 |

## Major requirements for Business Management (49.5 credit hrs.)

Since the core courses for the accounting and business management degrees are interchangeable, students can easily change their degree of choice during the first year of courses.

## Courses

ACCT 1100 Accounting IB 4.0
ACCT 1110 Accounting II円 © 4.0
ACCT 1120 Accounting III丹© 4.0
BSAD $1000 \quad$ Introduction to Business $-\mathfrak{B} \quad 4.5$
BSAD $1010 \quad$ Principles of Marketing -3.5
BSAD 1100 Business Lawl- 4.5
BSAD $1110 \quad$ Business Law IIB $\quad 4.5$

| BSAD 2100 | Principles of Management $-\mathcal{H}$ | 4.5 |
| :---: | :---: | :---: |
| BSAD 2940 | Business Plan Capstone | 1.5 |
| ECON 1000 | Macroeconomics ${ }^{\text {B }}$ | 4.5 |
| ECON 1100 | Microeconomics $\checkmark$ ¢ | 4.5 |
| FINA 2230 | Business Finance $\checkmark$ | 4.5 |

## Requirements for Business Management course track offerings (25.5-32.5 credit hrs.)

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

Students interested in a specific business course track should consult with faculty or an advisor when planning a course of study.
A certificate in Financial Planning (p. 74) is also available.
Credit Management (27.0 credit hrs.)
Business Management - Credit Management (BMCMO) (p. 71)
Entrepreneurship (27.0 credit hrs.)
Business Management - Entrepreneurship (BMENO) (p. 72)
Financial Planning and Investment (31.5 credit hrs.)
Business Management - Financial Planning and Investment (BMFSO) (p. 72)
Financial Services Management (28.0-32.5 credit hrs.)
Business Management - Financial Services Management (BMFMO) (p. 72)
Generalist (27.0 credit hrs.)
Business Management - Generalist (BMGEO) (p. 72)
Insurance and Risk Management ( 31.5 credit hrs.)
Business Management - Insurance and Risk Management (BMIMO) (p. 72)
International Business (25.5-27.0 credit hrs.)
Business Management - International Business (BMIBO) (p. 73)
Merchandising Management (25.5-27.0 credit hrs.)
Business Management - Merchandising Management (BMMMO) (p. 73)
Operations and Supply Chain Management ( 27.0 credit hrs.)
Business Management - Operations and Supply Chain Management (BMOSO) (p. 73)

Organizational Development (25.5-27.0 credit hrs.)
Business Management - Organizational Development (BMODO) (p. 73)

## Real Estate ( 27.0 credit hrs.)

Business Management - Real Estate (BMRE1) (p. 73)

## Curriculum Plan

Below is a suggested guide for students planning careers in business management after two years of full-time study.

## First Year

First quarter
ACCT 1100 Accounting I® • 4.0
BSAD $1000 \quad$ Introduction to Business $\because$ B 4.5

Second quarter
ACCT 1110
ECON 1000
ENGL 1020

ENGL 1240
HMRL 1010
Third quarter
ACCT 1120
ECON 1100
$\begin{array}{lll} & \text { English level I } & 4.5 \\ \text { MATH } 1220 & \text { Business Mathematics } \because & 4.5\end{array}$4.5

Accounting IH • 4.0
Macroeconomics 4.5
English Composition II 4.5
OR
Oral and Written Reports ${ }^{\text {B }} 4.5$
Human Relations Skills $\checkmark$ © 4.5

Accounting III•• 4.0
Microeconomics $\quad 4.5$
Gen. Ed. 4.5
Option track 3.0-7.5

| Second Year |  |  |
| :---: | :---: | :---: |
| Fifth quarter |  |  |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |
|  | OR |  |
| ACCT 2230 | Microcomputer Business Applications | 4.0 |
| BSAD 1100 | Business Law l- | 4.5 |
|  | Option track | 3.0-4.5 |
|  | Option track | 3.0-4.5 |
| Sixth quarter |  |  |
| BSAD 1110 | Business Law IIB | 4.5 |
| BSAD 2100 | Principles of Management $\mathcal{\bullet}$ | 4.5 |
|  | Option track | 3.0-7.5 |
|  | Option track | 3.0-7.5 |
| Seventh quarter |  |  |
| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
| BSAD 2940 | Business Plan Capstone | 1.5 |
| FINA 1200 | Wealth-Building Fundamentals and Personal Finance ${ }^{\bullet}$ | 4.5 |
| FINA 2230 | Business Finance ${ }^{\text {® }}$ | 4.5 |
|  | Option track | 3.0-4.5 |
|  | Elective recommended | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Business Management - Credit Management (BMCMO)

Prepares students with a background in general business and focuses on the credit management industry.

## General education requirements

See General education requirements for Business Management (p. 70)
Major requirements for Business Management
See Major requirements for Business Management (p. 70)

## Option requirements for Business Management - Credit

 Management
## Courses

Business electives 4.5

FINA $2209 \quad$ Risk Management and Insurance - B 4.5
FINA $2210 \quad$ Financial Planning Principles $\bullet$ © 4.5
FINA $2240 \quad$ Financial Statement Analysis $\mathcal{\ddots} \quad 4.5$
FINA $2410 \quad$ Consumer Credit-® 4.5
LAWS 2325 Bankruptcy, Credit, and Collections Law 4.5

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

This program of study is for people 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.

## Business Management - Entrepreneurship (BMENO)

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

## General education requirements

See General education requirements for Business Management (p. 70)
Major requirements for Business Management
See Major requirements for Business Management (p. 70)
Option requirements for Business Management Entrepreneurship

## Courses

ENTR $1050 \quad$ Introduction to Entrepreneurship $\bullet$ © 4.5
ENTR 2040 Entrepreneurship Feasibility Study ${ }^{0}$ 4.5
ENTR $2050 \quad$ Marketing for the Entrepreneur* 4.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneur* 3.5
ENTR $2070 \quad$ Financial Topics for the Entrepreneur $B^{3}$
ENTR $2090 \quad$ Entrepreneurship Business Plan $\because \quad 4.5$

## Business Management - Financial Planning and Investment (BMFSO)

Prepares students with a background in general business and prepares them to seek employment in the financial services industry.

## General education requirements

See General education requirements for Business Management (p. 70)

## Major requirements for Business Management

See Major requirements for Business Management (p. 70)
Option requirements for Business Management Financial Planning and Investment

## Courses

FINA $2200 \quad$ Investments $\backsim$ 易 4.5
FINA $2209 \quad$ Risk Management and Insurance -3.5
FINA $2210 \quad$ Financial Planning Principles $\smile$ B 4.5
FINA 2310 Income Tax Planning $\begin{aligned} \text { ® } & 4.5\end{aligned}$
FINA $2320 \quad$ Retirement Planning and Employee 4.5
FINA $2330 \quad$ Estate Planning - B 4.5
FINA $2940 \quad$ Financial Plan Development and Case 4.5
Analysis $\overbrace{0}$

## Business Management - Financial Services Management (BMFMO)

Prepares students with a background in general business and prepares them to seek employment in the financial services industry.

## General education requirements

See General education requirements for Business Management (p. 70)

## Major requirements for Business Management

See Major requirements for Business Management (p. 70)

## Option requirements for Business Management Financial Services Management <br> Courses <br> FINA $1311 \quad$ Introduction to Financial Services Industry ${ }^{B}$ 4.5 <br> FINA 1320 <br> Financial Calculator Applications $\triangleleft$ <br> 4.5

| FINA 2209 | Risk Management and Insurance $\checkmark$ ¢ | 4.5 |
| :---: | :---: | :---: |
| FINA 2210 | Financial Planning Principles $\mathcal{*}$ | 4.5 |
|  | OR BOTH |  |
| FINA 2206 | Fundamentals of Financial Planning I | 4.5 |
|  | AND |  |
| FINA 2207 | Fundamentals of Financial Planning II | 4.5 |
| Select three courses from of the following: |  |  |
| FINA 1200 | Wealth-Building Fundamentals and Personal Finance ${ }^{-3}$ | 4.5 |
| FINA 2100 | Introduction to Investments $\mathcal{\sim}$ | 4.5 |
| FINA 2220 | Asset and Liability Management for Financial Institutions | 4.5 |
| FINA 2240 | Financial Statement Analysis $-\frac{\square}{}$ | 4.5 |
| FINA 2400 | Financial Counseling ${ }^{\text {® }}$ | 4.5 |
| FINA 2410 | Consumer Credit* | 4.5 |
| FINA 2981 | Internship in Finance | variable |
| LAWS 2325 | Bankruptcy, Credit, and Collections Law | 4.5 |
| PSYC 2140 | Behavior Modification and Principles of Learning ${ }^{-1}$ | 4.5 |
|  | OR |  |
| SOCI 2160 | Marital and Family Relationships $\mathcal{O}$ | 4.5 |
| Business Management - Generalist (BMGEO) |  |  |
| Prepares students with a general business background. |  |  |
| General education requirements |  |  |
| See General education requirements for Business Management (p. 70) |  |  |
| Major requirements for Business Management |  |  |
| See Major requirements for Business Management (p. 70) |  |  |
| Option requirements for Business Management Generalist |  |  |
| Courses |  |  |
|  | Business electives | 27.0 |
| Business electives should be selected from ACCT, BSAD, ECON, FINA, ENTR, INSU, or REES. FINA 1200 is recommended. |  |  |
| Business Management - Insurance and Risk Management (BMIMO) |  |  |
|  |  |  |
| Prepares students with a background in general business and focuses on the insurance industry. |  |  |
| General education requirements |  |  |
| See General education requirements for Business Management (p. 70) |  |  |
| Major requirements for Business Management |  |  |
| See Major requirements for Business Management (p. 70) |  |  |
| Option requirements for Business Management Insurance and Risk Management |  |  |
| Courses |  |  |
|  | Business electives | 4.5 |
| BSAD 1200 | Principles of Selling | 4.5 |
| ENTR 1050 | Introduction to Entrepreneurship $\sim_{\bullet}$ © | 4.5 |
| FINA 2209 | Risk Management and Insurance $\checkmark \bigcirc$ | 4.5 |
| INSU 1000 | Principles of Health and Life Insurance ${ }^{-}$ | 4.5 |
| INSU 1100 | Principles of Property and Casualty Insurance ${ }^{-3}$ | 4.5 |
| INSU 2421 | Insurance Law | 4.5 |

Business electives should be selected from ACCT, BSAD, ECON, FINA, ENTR, NSU, or REES.

## Business Management - International Business (BMIBO)

Prepares students with a background in general business and focuses on international trade.

## General education requirements

See General education requirements for Business Management (p. 70)
Major requirements for Business Management
See Major requirements for Business Management (p. 70)
Option requirements for Business Management International Business

| Courses |  | 4.5 |
| :--- | :--- | ---: |
| BSAD 2400 | Business Logistics |  |
|  | OR | 4.5 |
| BSAD 2710 | Import and Export Operations |  |
| BSAD 2710 (Winter only) |  |  |
|  |  |  |
| Select three of the following (additional prerequisites may be required for |  |  |
| ECON 2720): |  | 4.5 |
| BSAD 2700 | Introduction to International Business | 4.5 |
| BSAD 2720 | International Marketing Management* | 4.5 |
| ECON 2720 | International Economics | 4.5 |
| ENTR 2700 | Global Issues in Entrepreneurship |  |

Select one course from group A or two courses from group B (additional prerequisites may be required):
Group A
FREN 1020
GERM 1020
JAPN 1020
SPAN 1120
CHIN 1120
Group B
GEOG $1020 \quad$ World Regional Geography~ヲ 4.5
HIST $1070 \quad$ Traditional and Modern China $\because$ B 4.5
HIST 2200 Latin American History 4.5

A course substitution could be considered if taken as part of a supervised travel abroad.

## Business Management - Merchandising Management (BMMMO)

Prepares students with a background in general business and focuses on the merchandising/retail industry.

## General education requirements

See General education requirements for Business Management (p. 70)
Major requirements for Business Management
See Major requirements for Business Management (p. 70)
Option requirements for Business Management -
Merchandising Management

| Courses |  |  |
| :--- | :--- | ---: |
| 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 | $7.5-9.0$ |
| BSAD 1202 (Fall only) |  |  |
| Business electives should be selected from ACCT, BSAD, ECON, FINA, ENTR, |  |  |
| INSU, or REES |  |  |

## Business Management - Operations and Supply Chain Management (BMOSO)

Prepares the students with a background in general business and focuses on the manufacturing/production sector.

## General education requirements

See General education requirements for Business Management (p. 70)
Major requirements for Business Management
See Major requirements for Business Management (p. 70)
Option requirements for Business Management Operations and Supply Chain Management

## Courses

BSAD $1300 \quad$ Introduction to Quality Management 4.5
BSAD $1600 \quad$ Principles of Supervision $\quad 4.5$
BSAD $2300 \quad$ Quality Management: Statistical Process 4.5 Control
$\begin{array}{lll}\text { BSAD } 2400 & \text { Business Logistics } & 4.5\end{array}$
BSAD 2710 Import and Export Operations 4.5
BSAD $2410 \quad$ Purchasing and Materials Management 4.5
BSAD $2420 \quad$ Production and Operations Management 4.5
BSAD 2710 (Winter only)

## Business Management - Organizational Development (BMODO)

Prepares students with a background in general business and focuses on development of management and leadership skills.

## General education requirements

See General education requirements for Business Management (p. 70)

## Major requirements for Business Management

See Major requirements for Business Management (p. 70)

| Option requirements for Business Management - |  |  |
| :--- | :--- | ---: |
| Organizational Development |  |  |
| Courses |  |  |
| BSAD 1300 |  |  |
| BSAD 1600 | Introduction to Quality Management | 4.5 |
| BSAD 2600 | Principles of Supervision丹 | 4.5 |
|  | Human Resources Management־ | 4.5 |
| HMRL 1050 | Business electives | $7.5-9.0$ |
| Leadership: Training and Skill Development | 4.5 |  |

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

## Business Management - Real Estate (BMRE1)

Prepares students with a background in general business and focuses on the real estate industry.

## General education requirements

See General education requirements for Business Management (p. 70)

## Major requirements for Business Management

See Major requirements for Business Management (p. 70)

## Option requirements for Business Management - Real Estate

Courses
BSAD $1200 \quad$ Principles of Selling 4.5
FINA $1200 \quad$ Wealth-Building Fundamentals and Personal 4.5
Finance ${ }^{-3}$
FINA $2410 \quad$ Consumer Credit* 3 B 4.5
REES $1000 \quad$ Real Estate Principles $\checkmark$ B $\quad 4.5$

| REES 1100 | Real Estate Law | 4.5 |
| :--- | :--- | :--- |
| REES 2120 | Real Estate Sales and Brokerage | 4.5 |

REES 1000, REES 1100, REES 2120: MCC has been approved by the Nebraska Real Estate Commission as a pre-license salesperson and broker education provider. These courses have been certified by both the Nebraska Real Estate Commission and ARELLO® (the Association of Real Estate License Law Officials). MCC faculty teaching these courses are certified distance education instructors (CDEI ${ }^{T M}$ ).

## Business Management - Entrepreneurship (BMECE)

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

This certificate of achievement provides students with the knowledge and training needed to become successful in starting a new business. The courses help students strategically develop a business plan with associated marketing tactics and financial statements for a new venture.

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | $35.5-36.0$ |
| Total credit hours required | $\mathbf{4 9 . 0 - 4 9 . 5}$ |

General education requirements ( 13.5 credit hrs.)
Communications

English level I
4.5

See Communications course options (p. 25)
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
Quantitative/numeracy skills
MATH 1220 Business Mathematics $-\theta$4.5

MATH 1220 or higher level MATH course
See Quantitative/numeracy skills course options (p. 27)

## Major requirements for Business Management Entrepreneurship (35.5-36.0 credit hrs.)

## Courses

BSAD $2100 \quad$ Principles of Management $\because$ B 4.5
ENTR 1050 Introduction to Entrepreneurship $\bigcirc$ © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study- 4.5
ENTR $2090 \quad$ Entrepreneurship Business Plan 3.5
Select 17.5-18.0 credit hours from the following:
ACCT $1100 \quad$ Accounting I- $\odot$
ENTR $2050 \quad$ Marketing for the Entrepreneur~B 4.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneur-3 4.5
ENTR $2070 \quad$ Financial Topics for the Entrepreneur $\begin{aligned} & 4.5\end{aligned}$
INFO $1010 \quad$ Customer Service Skills ® 4.5

## Business Management - Financial Planning (BMPC1)

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

This certificate of achievement provides students 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 <br> General education 13.5 <br> Major requirements 36.0 <br> Total credit hours required 49.5

## General education requirements ( 13.5 credit hrs.)

Communications

> English level I

See Communications course options (p. 25)
Humanities/social sciences Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics $\bigoplus^{\ominus} \quad 4.5$

MATH 1220 or higher level MATH course; MATH 1310 is recommended.
See Quantitative/numeracy skills course options (p. 27)
Major requirements for Financial Planning ( 36.0 credit
hrs.)
Courses
FINA 2200 Investments $\backsim$ - 4.5
FINA $2209 \quad$ Risk Management and Insurance-B 4.5
FINA $2210 \quad$ Financial Planning Principles $\rightarrow$ B 4.5
FINA $2230 \quad$ Business Finance $\smile$ B $\quad 4.5$
FINA $2310 \quad$ Income Tax Planning $B$ B 4.5
FINA $2320 \quad$ Retirement Planning and Employee 4.5
FINA $2330 \quad$ Estate Planning -3.5
FINA $2940 \quad$ Financial Plan Development and Case 4.5 Analysis ${ }^{-}$
The Certificate of Achievement in 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 (www.CFP-Board.org).

## Business Management - Financial Studies (BMFCE)

Award: Certificate of achievement
Program location: Online
The skills developed in this certificate of achievement may be in one or a combination of careers involving contemporary financial studies. Opportunities for state or national certification may also be available.
Graduation Requirements
General education 13.5
Major requirements 9.0
Option requirements 27.0
Total credit hours required 49.5

## General education requirements ( 13.5 credit hrs.)

## Communications

English level I
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences
4.5

See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
MATH 1220 Business Mathematics ©

MATH 1220 or higher level MATH course
See Quantitative/numeracy skills course options (p. 27)

Major requirements for Financial Studies ( 9.0 credit hrs.)

| Courses |  |  |
| :--- | :--- | :--- |
| BSAD 1100 | Business Law I- | 4.5 |
| FINA 2230 | Business Finance - - | 4.5 |

Electives ( 27.0 credit hrs.)
Courses

## Business electives

Students should select business electives from FINA, INSU, and/or REES prefixes.

## Business Management - International Business (BMICE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This certificate of achievement increases 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.)

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

## Communications

English level I
See Communications course options (p. 25)
Social sciences
Social sciences
See Social Sciences course options Humanities/Social Sciences (p. 25)
Degree-seeking students should pick from list of social science courses for BMAAS (p. 70)

## Quantitative/numeracy skills

MATH $1220 \quad$ Business Mathematics $\because$ © 4.5
MATH 1220 or higher level MATH course.
See Quantitative/numeracy skills course options (p. 27)
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
Major requirements for Business Management -
International Business ( 30.0 credit hrs.)

## Courses

ECON 1000 Macroeconomics $\checkmark$
Select three courses from the following:
BSAD $2700 \quad$ Introduction to International Business
BSAD $2710 \quad$ Import and Export Operations 4.5
BSAD 2720 International Marketing Management•® 4.5
ECON 2720 International Economics 4.5
Select one course from the following:
FREN $1010 \quad$ Beginning French l-3
GERM $1010 \quad$ Elementary German Iß $\quad 7.5$
JAPN $1010 \quad$ Beginning Japanese I 7.5
SPAN $1110 \quad 7.5$

## Select 4.5 credit hours from ACCT, BSAD, ENTR, or FINA courses

Degree-seeking students should pick from BMAAS major requirements list (p. 70)

## Business Management - Management Generalist (BMGCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Fremont Area Center, Sarpy Center, South Omaha Campus, Online
This certificate of achievement recognizes the development of entry-level interpersonal and applied managerial skills for an entrepreneurial or employment setting.

## Graduation Requirements

General education 13.5
Major requirements 8.5
Option requirements 27.0
Total credit hours required 49.0

## General education requirements ( 13.5 credit hrs.)

Communications
English level I
4.5

See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences

MATH $1220 \quad$ Business Mathematics $\quad 4.5$
MATH 1220 or higher level MATH course
See Quantitative/numeracy skills course options (p. 27)

Major requirements for Business Management -
Management Generalist ( 8.5 credit hrs.)
Courses
ACCT 1100 Accounting 1- © 4.0
FINA $2230 \quad$ Business Finance $\smile$ ß $\quad 4.5$

## Electives ( 27.0 credit hrs.)

Courses
Business electives
Students should select business electives from ACCT, BSAD, ENTR, and/or ECON prefixes.
Business Management - Marketing (BMMCE)
Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha
Campus
This certificate of achievement prepares students for employment as a supervisor
in direct sales and related fields.
Graduation Requirements
General education
Major requirements
Total credit hours required

## General education requirements ( 13.5 credit hrs.)

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

## Communications

English level I 4.5
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
Mathematics
4.5

See Quantitative/numeracy skills course options (p. 27)

## Major requirements for Business Management Marketing ( 35.5 credit hrs.)

Courses
ACCT 1100 Accounting 1 © © 4.0
BSAD $1010 \quad$ Principles of Marketing ${ }^{\text {® }} \quad 4.5$
BSAD $1200 \quad$ Principles of Selling 4.5
BSAD $1201 \quad$ Advertising and Sales Promotion 4.5
BSAD 1210 Retailing 4.5
BSAD $2720 \quad$ International Marketing Management* 4.5
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
Select one course from the following:
BSAD $1100 \quad$ Business Law lo
BSAD $1202 \quad$ Direct Marketing Methods 4.5
BSAD $2100 \quad$ Principles of Management $-\bigcirc 3$
ENTR $2050 \quad$ Marketing for the Entrepreneur $\quad 4.5$
FINA $1200 \quad$ Wealth-Building Fundamentals and Personal 4.5
ENTR/FINA Any cours
BSAD 1202 (Fall only)

## Business Management - Not-for-Profit Management (BMNCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This certificate of achievement prepares students to perform managerial functions in a variety of community services and agencies. NOTE: This certificate of achievement leads to a general studies degree.

| Graduation Requirements |  |
| :---: | :---: |
| General education | 13.5 |
| Major requirements | 30.0 |
| Option requirements | 7.5 |
| Total credit hours required | 52.0 |
| General education requirements (13.5 credit hrs.) |  |
| Communications |  |
| ENGL 1220 Technical Writing ${ }^{\text {O }}$ |  |
| Humanities/social sciences |  |
| Humanities/social sciences |  |
| See Humanities/social sciences course options (p. 25) |  |
| Quantitative/numeracy skills |  |
| Mathematics |  |
| See Quantitative/numeracy skills course options (p. 27) |  |


| Courses |  |  |
| :---: | :---: | :---: |
| ACCT 1050 | Bookkeeping ${ }^{\text {B }}$ | 3.0 |
| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
| BSAD 1100 | Business Law lob | 4.5 |
|  | OR |  |
| ECON 1100 | Microeconomics ${ }^{\text {® }}$ | 4.5 |
| BSAD 1250 | Introduction to Not-for-Profit Management | 4.5 |
| BSAD 2100 | Principles of Management-® | 4.5 |
| ENGL 1240 | Oral and Written Reports $\mathcal{B}$ | 4.5 |
| ENGL 2210 | Grant Writing | 4.5 |

## Option requirements for Business Management - Not-for-Profit Management (7.0-9.0 credit hrs.)

## Courses

ARTS $2220 \quad$ Art Gallery Management 4.5
HMSV 1010 Introduction to Human Services $\mathcal{B} \quad 4.0$

THEA $2200 \quad$ Arts Administration 4.5
BSAD 2981 Internship in Business variable

## Business Management - Para-Financial Planner (BPFCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center
This certificate of achievement prepares students 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.

## Graduation Requirements

General education 13.5
Major requirements 37.0
Total credit hours required 50.5
General education requirements ( 13.5 credit hrs.)
Communications
English level I
4.5

See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills

| MATH 1220 | Business Mathematics ${ }^{-}$ | 4.5 |
| :---: | :---: | :---: |

## Major requirements for Business Management - ParaFinancial Planner ( 37.0 credit hrs.)

Courses

ECON 1000 Macroeconomics- | B | 4.5 |
| :--- | :--- |

FINA $1200 \quad$ Wealth-Building Fundamentals and Personal 4.5 Finance $-\neq$
FINA $1311 \quad$ Introduction to Financial Services Industry $\begin{array}{lll}\text { ® } & 4.5\end{array}$
FINA $1320 \quad$ Financial Calculator Applications $\mathcal{B B}^{1.0}$
FINA $2100 \quad$ Introduction to Investments $\triangleleft$ B
FINA $2206 \quad$ Fundamentals of Financial Planning I 4.5
FINA $2207 \quad$ Fundamentals of Financial Planning II 4.5
FINA 2981 Internship in Finance variable
INFO 1001 Information Systems and Literacy ${ }^{\text {B }} 4.5$

## Customer Service Management (BCSSD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate develops skills for working with customers and employees in business settings where extensive employee and customer interactions are critical. NOTE: This career certificate leads to a degree in general studies.

## Requirements for Customer Service Management career certificate ( 27.0 credit hrs.)

## Courses

BSAD $1600 \quad$ Principles of Supervision 3 4.5
BSAD $2100 \quad$ Principles of Management - B 4.5
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO $1010 \quad$ Customer Service Skills $\smile$ ® 4.5
SPCH $1110 \quad$ Public Speaking © 4.5
SPCH $1300 \quad$ Interpersonal Communication 4.5

## Entrepreneurship (BENSD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This career certificate prepares students with a background in small business management to be successful in starting new businesses.

## Requirements for Entrepreneurship career certificate (27.0 credit hrs.)

## Courses

ENTR $1050 \quad$ Introduction to Entrepreneurship $\bullet$ © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study 0 - 4.5
ENTR $2050 \quad$ Marketing for the Entrepreneur~B 4.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneur* $\quad 4.5$
ENTR $2070 \quad$ Financial Topics for the Entrepreneur -3.5
ENTR $2090 \quad$ Entrepreneurship Business Plan $७$ B 4.5

## Financial Studies (BMFCC)

Award: Career certificate
Program location: Online
This career certificate recognizes a focus on one or a combination of careers involving financial studies. Opportunities for state or national certification may also be available.

## Requirements for Financial Studies career certificate (27.0 credit hrs.) <br> Courses

## Business electives

27.0

Students should select business electives from FINA, INSU, and/or REES prefixes.

## Advising Notes

Financial Planning classes (FINA 2200, FINA 2209, FINA 2210, FINA 2230, FINA 2310, FINA 2320, FINA 2330, and FINA 2940) are approved by the CFP Board as meeting requirements to sit for the national CFP exam. These classes also have special fees.

Real Estate classes at MCC are approved by the Nebraska State Real Estate Commission. People seeking to fulfill real estate license requirements usually take REES 1000 and REES 1100. Online REES classes are also nationally certified by ARRELLO.
INSU 1000 and INSU 1100 are approved by the Nebraska State Insurance Commission as preparation for the state licensure exams.

## General Management (BMGCC)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fremont Area Center, Fort Omaha Campus, Sarpy Center, South Omaha Campus, online
Opportunities for those with skills in entrepreneurship, accounting, management, and marketing/sales generally remain in demand despite changes in the business cycle. Selections of elective classes permit a focus on specific career areas.

## Requirements for General Management career certificate ( 27.0 credit hrs.) <br> Courses

Business electives
27.0

Students should select business electives from ACCT, BSAD, and/or ENTR prefixes.

## Not-for-Profit Management (BNPSD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This career certificate prepares students to perform managerial functions in a variety of community services and agencies. NOTE: This career certificate leads to a general studies degree.

## Requirements for Not-for-Profit Management career certificate ( $25.0-27.0$ credit hrs.)

## Courses

BSAD $1010 \quad$ Principles of Marketing $\mathcal{B} \quad 4.5$
BSAD $1250 \quad$ Introduction to Not-for-Profit Management 4.5
BSAD $2100 \quad$ Principles of Management-® 4.5
BSAD 2981 Internship in Business variable
ENGL $2210 \quad$ Grant Writing 4.5
HMSV 1010 Introduction to Human Services $\begin{aligned} & \text { ® }\end{aligned}$
OR
$\begin{array}{lll}\text { THEA } 2200 & \text { Arts Administration } & 4.5\end{array}$

## Operations and Supply Chain Management (BOSSD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This career certificate enhances and develops managerial problem-solving skills applicable to a manufacturing/service provider setting.
Requirements for Operations and Supply Chain
Management career certificate ( 27.0 credit hrs.)
Courses
BSAD $1300 \quad$ Introduction to Quality Management 4.5
BSAD $1600 \quad$ Principles of Supervision 3 B 4.5
BSAD $2300 \quad$ Quality Management: Statistical Process 4.5
BSAD $2400 \quad$ Business Logistics $\quad 4.5$
BSAD $2410 \quad$ Purchasing and Materials Management 4.5
BSAD $2420 \quad$ Production and Operations Management 4.5

## Organizational Development (BODSD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This career certificate develops skills necessary to build effective teams that support organizational goals.

## Requirements for Organizational Development career certificate（ 25.5 credit hrs．）

## Courses

BSAD $1300 \quad$ Introduction to Quality Management 4.5
BSAD $1600 \quad$ Principles of Supervision ${ }^{\text {® }} \quad 4.5$
BSAD $2600 \quad$ Human Resources Management $\mathcal{B} \quad 4.5$
HMRL 1050 Leadership：Training and Skill Development 4.5
Business Electives 7.5

## Real Estate Entrepreneurship（BMRED）

Award：Career certificate
Program location：Elkhorn Valley Campus，Fort Omaha Campus，South Omaha Campus
This career certificate is for those seeking self－employment in the real estate industry．

## Requirements for Real Estate Entrepreneurship career certificate（ 27.0 credit hrs．）

## Courses

BSAD $1200 \quad$ Principles of Selling 4.5
ENTR $1050 \quad$ Introduction to Entrepreneurship－© © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Studyß 4.5
ENTR $2090 \quad$ Entrepreneurship Business Plan ${ }^{\text {B }} 4.5$
REES $1000 \quad$ Real Estate Principles $\backsim$ B 4.5
REES 1100 Real Estate Law ${ }^{\text {O }} 4.5$
Licensure to sell real estate is required in the state of Nebraska．REES 1000 and REES 1100 are designed to help prepare students to take the Nebraska Real Estate Salesperson Exam．It is recommended that students contact the Real Estate Commission about other requirements to take the exam prior to completion of REES 1000 and REES 1100 so that they can make arrangements to achieve licensure prior to completion of the career certificate in real estate entrepreneurship．

## Business Transfer（BSTAA）

Award：Associate in arts degree
Program location：Elkhorn Valley Campus，Fort Omaha Campus，South Omaha Campus，Online
This degree provides students with the dual option of seeking entry－level business positions and／or continuing their studies at a four－year institution．Currently， Bellevue University，Midland University，University of Nebraska－Lincoln， Northwest Missouri State，and University of Nebraska at Omaha accept this degree．Areas of emphasis include accounting，economics，management，and marketing．

## Graduation Requirements

| General education | $55.5-57.5$ |
| :--- | :--- |
| Major requirements | 43.5 |
| Total credit hours required | $\mathbf{9 9 . 0 - 1 0 1 . 0}$ |

General education requirements（55．5－57．5 credit hrs．）
The general education requirements for this degree exceed the minimum standard number of hours．For more information，contact Student Services．

## Communications



| Humanities |  |  |
| :---: | :---: | :---: |
| Select two courses from the following： |  |  |
| ARTS 1110 | Art History－Ancient to Gothic－3 | 4.5 |
| ARTS 1120 | Art History－Renaissance to Modern－3 | 4.5 |
| ENGL 2470 | Introduction to Women＇s Literature | 4.5 |
| ENGL 2530 | Ethnic Literature | 4.5 |
| ENGL 2610 | British Literature I＊${ }^{\text {® }}$ | 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 1010 | Introduction to Philosophy ${ }^{\text {B }}$ | 4.5 |
| PHIL 2030 | Introduction to Ethics $\checkmark$ © | 4.5 |
| PHIL 2200 | Introduction to Comparative Religion－隹 | 4.5 |
| THEA 1000 | Introduction to the Theatre ${ }^{-3}$ | 4.5 |
| Natural sciences |  |  |
|  | Natural sciences | 6．0－7．5 |
| See Natural Sciences（p．151）course options |  |  |
| Social sciences |  |  |
| Select two courses from the following： |  |  |
| GEOG 1010 | Fundamentals of Geography ${ }^{\text {b }}$ | 4.5 |
| GEOG 1050 | Introduction to Human Geography＊ | 4.5 |
| HIST 1010 | United States History to 1877－伊 | 4.5 |
| HIST 1020 | U．S．History from 1865 to Present $\bigcirc$ © © | 4.5 |
| HIST 1110 | World Civilization from Prehistory to 1500 B $^{\text {a }}$ | 4.5 |
| HIST 1120 | World Civilization from 1500 to Present $\mathcal{B}$ © | 4.5 |
| HIST 2050 | Modern Europe since 1815 | 4.5 |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {© }}$（ | 4.5 |
| SOCI 1010 | Introduction to Sociology ® $^{\text {© }}$ | 4.5 |
| SOCI 1250 | Introduction to Anthropology－3 | 4.5 |
| SOCI 2050 | Current Social Problems $\checkmark$ Ө | 4.5 |
| SOCI 2160 | Marital and Family Relationships ${ }^{\text {Of }}$ | 4.5 |
| Quantitative／numeracy skills |  |  |
| MATH 1420 | College Algebra $\bigcirc$ | 5.0 |
| MATH 1420：Additional prerequisite（s）may be required． |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy－ | 4.5 |
|  | OR |  |
| ACCT 2230 | Microcomputer Business Applications | 4.0 |
| Major requirements for Business Transfer（43．5 credit hrs．） |  |  |
| Courses |  |  |
| ACCT 1100 | Accounting I＊ | 4.0 |
| ACCT 1110 | Accounting $\\|$ P | 4.0 |
| ACCT 1120 | Accounting III－ | 4.0 |
| BSAD 1000 | Introduction to Business $\sqrt{\text { ® }}$ | 4.5 |
| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
| BSAD 1100 | Business Lawle | 4.5 |
| BSAD 2100 | Principles of Management $⿵$ ¢ | 4.5 |
| ECON 1000 | Macroeconomics ${ }^{\text {® }}$ | 4.5 |
| ECON 1100 | Microeconomics ${ }^{\text {® }}$ | 4.5 |
| Select one course from the following： |  |  |
| BSAD 2700 | Introduction to International Business | 4.5 |
| BSAD 2720 | International Marketing Management＊${ }^{\text {B }}$ | 4.5 |
| ECON 2720 | International Economics | 4.5 |
| UNO and UNL may have more specific requirements．Refer to www．mccneb．edu／articulation for current information． |  |  |
| Curriculum Plan |  |  |
| Below is a suggested guide for students planning to complete the Business Transfer degree after two years of full－time study． |  |  |
| It pays to be requirements | d．It is recommended that students complete the program of study． |  |


| First quarter |  |  |
| :---: | :---: | :---: |
| BSAD 1000 | Introduction to Business $\overbrace{\text { ® }}$ | 4.5 |
| ENGL 1010 | English Composition 1- | 4.5 |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| MATH 1420 | College Algebra $\bigcirc$ | 5.0 |
| Second quarter |  |  |
| ACCT 1100 | Accounting 1- | 4.0 |
| ECON 1000 | Macroeconomics ${ }_{\text {B }}$ | 4.5 |
| ENGL 1020 | English Composition IIT® | 4.5 |
|  | Humanities elective | 4.5 |
| Third quarter |  |  |
| ACCT 1110 | Accounting $\\|$ © | 4.0 |
| ECON 1100 | Microeconomics $\checkmark$ | 4.5 |
| SPCH 1110 | Public Speaking ${ }_{\text {© }}$ © | 4.5 |
|  | Social science elective | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| ACCT 1120 | Accounting III- $\mathrm{B}_{\text {© }}$ | 4.0 |
| INFO 1001 | Information Systems and Literacy ${ }^{(1)}$ | 4.5 |
|  | OR |  |
| ACCT 2230 | Microcomputer Business Applications | 4.0 |
| BSAD 1100 | Business Law l® | 4.5 |
| BSAD 2100 | Principles of Management $\mathcal{B}$ | 4.5 |
| Sixth quarter |  |  |
| BSAD 1010 | Principles of Marketing ${ }^{\text {B }}$ | 4.5 |
|  | Humanities elective | 4.5 |
|  | Social science elective | 4.5 |
| Humanities elective: PHIL 2030 is recommended. |  |  |
| Seventh quarter |  |  |
|  | Cultural diversity elective | 4.5 |
|  | International business elective | 4.5 |
|  | Natural science elective | 6.0 |

For the most current transfer listings, visit www.mccneb.edu/articulation.
To optimize credit transfer to the business programs within the University of Nebraska system, follow the detailed business transfer guides listed under UNL and UNO.

## Human Services

The Human Services program prepares students 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.

Those working in the human services field have specialized training as a helping professional. They hold a variety of positions in residential care, correctional facilities, substance abuse treatment facilities, homeless shelters and food banks, organizations dedicated to children and families, poverty and employment services, child and elder care operations, mental health agencies, and domestic violence efforts. Their role may include helping others obtain services, monitoring and keeping records, organizing or leading group activities, assisting clients in mastering everyday living skills, and modeling healthy behaviors for residents or clients.

The Human Services program has been accredited by The Council for Standards in Human Service Education since 1995.
The Chemical Dependency Counseling concentration (associate degree) meets the standards established by the Nebraska Department of Health and Human Services, Division of Alcoholism, Drug Abuse, and Addiction Services as a Provisionally Licensed Alcohol and Drug Counselor (PLADC).
The associate degree in the general human services concentration provides the opportunity to become a Human Services-Board Certified Practitioner through the Center for Credentialing and Education.

## Degree: Associate in Applied Science

Human Services - Chemical Dependency Counseling
Human Services - General

## Certificate of Achievement:

Human Services - General
Human Services - Chemical Dependency

## Human Services - General (HSAA1)

Award: Associate in applied science degree Program location: Fort Omaha Campus
This degree prepares students for entry-level positions in public and private community agencies and institutions involved with helping professions. Human services workers are 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 accredits the Human Services program.
Graduation Requirements
General education
27.0

Major requirements 81.5-83.5
Total credit hours required
108.5-110.5

## General education requirements ( 27.0 credit hrs.)

 Communications| ENGL 1010 | English Composition l © | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II- | 4.5 |

It is important for students in the Human Services program to take both English requirements in the first two quarters of the program.

Social sciences
PSYC 1010 Introduction to Psychology $\smile$ © 4.5
Other
HMRL 1010 Human Relations Skills $\smile$ © © 4.5
INFO 1001 Information Systems and Literacy $\odot \quad 4.5$
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)

## Major requirements for Human Services (81.5-83.5 credit hrs.)

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.
Students must submit documentation that verifies current certification in adult
CPR and basic first aid before participating in practicum courses. EMSP 1010 Heartsaver First Aid with CPR and AED is offered through MCC as a 1.0 credit hour course. The coordinator of practicum education completes registration in practicum courses.
PSYC 2150/SOCI 2150 and PSYC 2450/SOCI 2450 are cross-listed classes.

## Courses

HMSV 1010
Introduction to Human Services $\because$
HMSV 1110 Interpersonal Communication Skills $-\mathfrak{3} \quad 3.5$
HMSV $1120 \quad$ Helping Skills and Techniques 3.5
HMSV $1130 \quad$ Introduction to Counseling Theories 3.5
HMSV $1140 \quad$ Assessment, Case Planning, and Management $\smile$ B 4.5
HMSV 1150
HMSV 1150
Community Resources
Professional Ethics and Issues $\begin{gathered}\text { a }\end{gathered}$
Group Counseling
HMSV 2120
HMSV 2150
Social Services Policy 4.5

Multicultural Counseling 4.5
Survey of Exceptional Populations 4.5
Prepracticum 2.5

Crisis Intervention 3.0
Practicum I-General Human Services 5.0
Practicum II - General Human Services 5.0
Practicum III - General Human Services 5.0
Human Growth and Development $\mathcal{B} \quad 4.5$
Fundamentals of Abnormal Psychology ${ }^{\text {B }} 4.5$
Introduction to Sociology $\quad 4.5$

## Select one of the following suggested courses:

ENGL $2210 \quad$ Grant Writing 4.5
HMRL $1050 \quad$ Leadership: Training and Skill Development 4.5
HMSV $1160 \quad$ Medical and Social Aspects of Addictions $७$ B 4.5
HMSV $2130 \quad$ Treatment Issues in Chemical Dependency $\mathcal{B r}^{3} 4.0$
HMSV $2140 \quad$ Family Therapy 4.0
HMSV $2160 \quad$ Advanced Group Skills 4.5
PSYC $1110 \quad$ Parenting and Family Problem Solving $円$ B 4.5
PSYC $2140 \quad$ Behavior Modification and Principles of 4.5
Learning ${ }^{3}$
PSYC $2150 \quad$ Survey of Human Sexuality ${ }^{\text {® }} \quad 4.5$
SOCI $2150 \quad$ Survey of Human Sexuality 0 - 4.5
PSYC $2450 \quad$ Social Psychology 3 4.5
SOCI $2450 \quad$ Social Psychology $\quad 4.5$
SLIS $1010 \quad$ American Sign Language I 6.0
SOCI $1050 \quad$ Sociology of Healthcare - B
SOCI $1250 \quad$ Introduction to Anthropology ${ }^{\text {® }} 4.5$
SOCI $2050 \quad$ Current Social Problems $\smile$ B 4.5
SOCI $2060 \quad$ Multicultural Issues - B 4.5
SOCI $2110 \quad$ Introduction to Gerontology 3 - 4.5
SOCI $2160 \quad$ Marital and Family Relationships $\mathcal{B} \quad 4.5$
SOCI 2311 Juvenile Justice ${ }^{-3} \quad 4.5$
SPAN $1050 \quad$ Spanish for Business l® $\quad 4.5$

## Curriculum Plan

Below is a suggested guide for students planning careers in human services after two years of full-time study.
First year
First quarter
ENGL $1010 \quad$ English Composition Iß $\quad 4.5$
INFO 1001 Information Systems and Literacy- © 4.5
PSYC $1010 \quad$ Mathematics or Financial Literacy 4.5
Second quarter
ENGL $1020 \quad$ English Composition II丹 © 4.5
HMSV $1010 \quad$ Introduction to Human Services $\smile$ ® 4.0
HMSV 1110 Interpersonal Communication Skills $\checkmark$ ß 3.5
SOCI 1010
Third quarter
HMSV 1120
HMSV 1140
HMSV 1150
HMRL 1010
Fourth quarter
HMSV 1130
HMSV 2050
HMSV 2150
HMSV 2310
PSYC 1120
Second year
Fifth quarter
HMSV 2110
HMSV 2250
HMSV 2450
HMSV 2991
Sixth quarter
HMSV 2120
HMSV 2992
Social Services Policy

PSYC 2350
Seventh quarter
HMSV 2993
Fundamentals of Abnormal Psychologye

Individuals considering a degree or employment in the human services or
chemical dependency fields should be aware of strict practicum qualifications.
Adult Protective Services and Child Protective Services 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 students intend to participate in a practicum experience. This practice is consistent with Nebraska state statutes. Consult the Human Services program manual for other prerequisites to practicum placement.
Human Services - General (HSGCE)
Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha
Campus
This certificate of achievement provides knowledge and skills in interpersonal
communication; an overview of human services; helping skills/techniques;
community resources; an introduction to counseling theories; assessment, case
planning, and management; professional ethics and issues; and crisis
intervention.
Graduation Requirements
General education
Major requirements
Total credit hours required

General education requirements ( 27.0 credit hrs.)
Communications

| ENGL 1010 | English Composition I- | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition IIP® | 4.5 |
| Social sciences |  |  |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {B }}$ © | 4.5 |
| SOCI 1010 | Introduction to Sociology ${ }_{\text {© }}$ © | 4.5 |
| Quantitative/numeracy skills |  |  |
|  | Mathematics or Financial Literacy | 4.5 |
| See Quantitative/numeracy skills course options (p. 27) |  |  |
| Other |  |  |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |

## Major requirements for Human Services - General (30.0 credit hrs.)

## Courses

HMSV 1010 Introduction to Human Services $\begin{aligned} & \text { © }\end{aligned}$
HMSV 1110 Interpersonal Communication Skills $\checkmark$ B 3.5
HMSV $1120 \quad$ Helping Skills and Techniques 3.5
HMSV $1130 \quad$ Introduction to Counseling Theories 3.5
HMSV 1140 Assessment, Case Planning, and 4.5 Management -3
HMSV 1150 Community Resources
HMSV $2050 \quad$ Professional Ethics and Issues 3.0
HMSV $2150 \quad$ Multicultural Counseling 4.5

## Chemical Dependency Counseling (CDAAS)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree prepares students 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. Students have the opportunity to develop skills that enable them 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.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | $81.0-83.0$ |

Total credit hours required
108.0-110.0

| General education requirements ( 27.0 credit hrs.) |  |  |
| :---: | :---: | :---: |
| Communications |  |  |
| ENGL 1010 | English Composition If | 4.5 |
| ENGL 1020 | English Composition II®* | 4.5 |
| It is important for students in the Human Services program to take both English requirements in the first two quarters of the program. |  |  |
| Social sciences |  |  |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {e }}$ © | 4.5 |
| Quantitative/numeracy skills |  |  |
|  | Mathematics or Financial Literacy | 4.5 |
| See Quantitative/numeracy skills course options (p. 27) |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills ${ }_{\text {c }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |

## Major requirements for Human Services - Chemical Dependency Counseling (81.0-83.0 credit hrs.)

## Courses

HMSV $1110 \quad$ Interpersonal Communication Skills $\backsim \nexists\}$
HMSV $1120 \quad$ Helping Skills and Techniques 3.5
HMSV $1130 \quad$ Introduction to Counseling Theories 3.5
HMSV $1140 \quad$ Assessment, Case Planning, and 4.5
HMSV $1160 \quad$ Medical and Social Aspects of Addictions $\backsim \nrightarrow$ 4.5
HMSV $2050 \quad$ Professional Ethics and Issues $-3 \quad 2.0$
HMSV $2110 \quad$ Group Counseling 4.5
HMSV $2130 \quad$ Treatment Issues in Chemical Dependency $\mathcal{B} \quad 4.0$
HMSV $2140 \quad$ Family Therapy 4.0
HMSV $2150 \quad$ Multicultural Counseling 4.5
HMSV $2160 \quad$ Advanced Group Skills 4.5
HMSV $2310 \quad$ Prepracticum 2.5
HMSV $2450 \quad$ Crisis Intervention 3.0
HMSV $2994 \quad$ Practicum I - Chemical Dependency 5.0
HMSV $2995 \quad$ Practicum II - Chemical Dependency 5.0
HMSV $2996 \quad$ Practicum III - Chemical Dependency 5.0
PSYC $1120 \quad$ Human Growth and Development $\because$ B
PSYC $2350 \quad$ Fundamentals of Abnormal Psychology色 4.5
SOCI $1010 \quad$ Introduction to Sociology- 4.5
HMSV 2994, HMSV 2995, HMSV 2996: Because of the limited seats available for the required practicum courses (a factor beyond the College's control), there may be a delay in graduation from the program.
HMSV 2994, HMSV 2995, HMSV 2996: 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. Students must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. EMSP 1010 Heartsaver First Aid with CPR and AED is offered through MCC as a 1.0 credit hour course
The coordinator of practicum education completes registration in practicum courses and practicum seminars.

## Select one course from the following:

ENGL $2210 \quad$ Grant Writing 4.5
HMRL $1050 \quad$ Leadership: Training and Skill Development 4.5
HMSV 1010 Introduction to Human Services $\bullet$ B 4.0
HMSV $1150 \quad$ Community Resources 4.5
HMSV $2120 \quad$ Social Services Policy 4.5
PSYC $1110 \quad$ Parenting and Family Problem Solving $-\nrightarrow \quad 4.5$
PSYC $2140 \quad$ Behavior Modification and Principles of 4.5
Learning ${ }^{-3}$
PSYC $2150 \quad$ Survey of Human Sexuality 0 B 4.5
PSYC $2450 \quad$ Social Psychology ${ }^{\text {® }} \quad 4.5$
SLIS $1010 \quad$ American Sign Language I 6.0
SOCI $1050 \quad$ Sociology of Healthcare -3.5
SOCI $1250 \quad$ Introduction to Anthropologys
SOCI $2050 \quad$ Current Social Problems $\checkmark$ B 4.5
SOCI $2060 \quad$ Multicultural Issues - B $\quad 4.5$

| SOCI 2110 | Introduction to Gerontology ${ }^{\text {e }}$ | 4.5 |
| :---: | :---: | :---: |
| SOCI 2160 | Marital and Family Relationships $\bullet_{\bullet}$ | 4.5 |
| SOCI 2311 | Juvenile Justice ${ }^{\text {© }}$ | 4.5 |
| SPAN 1050 | Spanish for Business I* | 4.5 |

## Curriculum Plan

Below is a suggested guide for students planning careers in chemical dependency after two years of full-time study.

| First Year |  |  |
| :---: | :---: | :---: |
| First Quarter |  |  |
| ENGL 1010 | English Composition 1 - ${ }^{\text {© }}$ | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }_{\text {© }}$ © | 4.5 |
|  | Mathematics or Financial Literacy | 4.5 |
| PSYC 1010 | Introduction to Psychology $\bigcirc$ | 4.5 |
| Second quarter |  |  |
| ENGL 1020 | English Composition II® | 4.5 |
| HMSV 1110 | Interpersonal Communication Skills $\cdot$ B | 3.5 |
| HMSV 1160 | Medical and Social Aspects of Addictions $\checkmark$ B | 4.5 |
| PSYC 1120 | Human Growth and Development* ${ }^{\text {B }}$ | 4.5 |
| Third quarter |  |  |
| HMSV 1120 | Helping Skills and Techniques | 3.5 |
| HMSV 1140 | Assessment, Case Planning, and Management ${ }^{-3}$ | 4.5 |
| HMSV 2130 | Treatment Issues in Chemical Dependency ${ }^{\text {e }}$ | 4.0 |
| HMRL 1010 | Human Relations Skills $\bigcirc$ © | 4.5 |
| SOCI 1010 | Introduction to Sociology ${ }^{\text {e }}$ © | 4.5 |
| Fourth quarter |  |  |
| HMSV 1130 | Introduction to Counseling Theories | 3.5 |
| HMSV 2050 | Professional Ethics and Issues ${ }^{\text {B }}$ | 2.0 |
| HMSV 2110 | Group Counseling | 4.5 |
| HMSV 2150 | Multicultural Counseling | 4.5 |
| HMSV 2310 | Prepracticum | 2.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| HMSV 2160 | Advanced Group Skills | 4.5 |
| HMSV 2450 | Crisis Intervention | 3.0 |
| HMSV 2994 | Practicum I - Chemical Dependency Counseling | 5.0 |
| Sixth quarter |  |  |
| HMSV 2140 | Family Therapy | 4.0 |
| HMSV 2995 | Practicum II - Chemical Dependency Counseling | 5.0 |
| PSYC 2350 | Fundamentals of Abnormal Psychology ${ }^{\text {A }}$ | 4.5 |
| Seventh quarter |  |  |
| HMSV 2996 | Practicum III - Chemical Dependency Counseling | 5.0 |
|  | Other requirements | 3.0-7.5 |

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.
Individuals considering a degree or employment in the human services or chemical dependency fields should be aware of strict practicum admission qualifications. Adult Protective Services and Child Protective Services 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 students intend to participate in a practicum experience. This practice is consistent with Nebraska state statutes. Consult the Human Services program manual for other prerequisites to practicum placement.

## Chemical Dependency (CDCCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This certificate of achievement 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.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 28.5 |
| Total credit hours required | 55.5 |

## General education requirements ( 27.0 credit hrs.)

Communications
ENGL $1010 \quad$ English Composition I®® 4.5
ENGL 1020 English Composition IIßヤ 4.5
Social sciences
PSYC 1010 Introduction to Psychologys ©
4.5

SOCI $1010 \quad$ Introduction to Sociology $\bullet$ • 4.5
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
Other
INFO 1001 Information Systems and Literacy-
4.5

## Major requirements for Human Services - Chemical Dependency ( 28.5 credit hrs.)

Courses
HMSV $1110 \quad$ Interpersonal Communication Skills $\bullet$ ® 3.5
HMSV $1120 \quad$ Helping Skills and Techniques 3.5
HMSV $1130 \quad$ Introduction to Counseling Theories 3.5
HMSV $1140 \quad$ Assessment, Case Planning, and 4.5
HMSV $1160 \quad$ Medical and Social Aspects of Addictions $\checkmark \nrightarrow$ 4.5
HMSV $2050 \quad$ Professional Ethics and Issues - B 2.0
HMSV $2130 \quad$ Treatment Issues in Chemical Dependency $\begin{aligned} \text { B } & 4.0\end{aligned}$
HMSV 2450 Crisis Intervention 3.0

## Legal Studies

Legal Studies includes coursework dealing with legal ideas, legal institutions, and the legal process. Depending upon the program selected, graduates may be seeking advanced education to become a lawyer or seek employment in law, business, or government offices working under the supervision of a lawyer. In either case, the law office provides an intellectually stimulating, challenging, and fast-paced work environment.
Those pursuing education in legal studies need to have or develop strong skills in reading, writing, oral communication, and critical thinking as well as related skills such as research and problem solving. It is also helpful to be detail oriented.
Paralegals are often members of a legal team working with and for the client. The student should possess strong technological and computer skills.
Degree: Associate in Applied Science
Legal Studies
Legal Administrative Assistant
Paralegal
Pre-Law
Certificate of Achievement:
Legal Assistant-Accelerated

## Legal Studies (LSAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree prepares students for transfer to pre-law programs or for a career as either a paralegal or a legal administrative assistant.

## Graduation Requirements

General education 27.0
Major requirements 36.0
Option requirements 36.0-39.5
Total credit hours required 99.0-102.5

## General education requirements ( 27.0 credit hrs.)

Communications

| ENGL 1010 | English Composition Ife | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II®* | 4.5 |
| Humanities/social sciences |  |  |
| PHIL 1100 | Critical Reasoning ${ }^{\text {® }}$ | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1410 | Statistics ${ }^{\text {B }}$ | 4.5 |
| Take MATH 1410 or higher level MATH course. Additional prerequisite(s) may be required. |  |  |
| Other |  |  |
| INFO 1001 | Information Systems and Literacy* | 4.5 |
| HMRL 1010 | Human Relations Skills- | 4.5 |

## Major requirements for Legal Studies (36.0 credit hrs.)

 CoursesBSAD 1100 Business Lawlo $\quad 4.5$
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 $2324 \quad$ Criminal Law and Procedures 4.5
POLS 2050 American National Government $\because$ B 4.5
POLS $2060 \quad$ The Constitution $\because \circlearrowleft$
SPCH $1110 \quad$ Public Speaking ©

## Option requirements for Legal Studies (33.0-39.5 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.
Legal Administrative Assistant (33.0 credit hrs.)
Legal Studies - Legal Administrative Assistant (LSAAO) (p. 82)
Paralegal ( 39.5 credit hrs.)
Legal Studies - Paralegal (LSPAO) (p. 83)
Pre-law ( 36.0 credit hrs.)
Legal Studies - Pre-Law (LSPLO) (p. 84)

## Legal Studies - Legal Administrative Assistant (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

Major requirements 36.0
Option requirements 33.0
Total credit hours required 96.0

## General education requirements

See General education requirements for Legal Studies (p. 82)
Major requirements for Legal Studies
See Major requirements for Legal Studies (p. 82)

## Option requirements for Legal Administrative Assistant (33.0 credit hrs.)

## Courses

INFO 1008 Business Office Communications $\checkmark$ ß 4.5
INFO $1012 \quad$ Electronic Filing and Calculating - $\quad 4.5$
INFO $1013 \quad$ Keyboard Skillbuilding ${ }^{\text {B }} 2.0$
INFO 1213 Database Fundamentals - B 4.5
INFO $1214 \quad$ Business Presentations ${ }^{\text {B }} 4.5$
INFO 1215 Document Processing ${ }^{\text {B }} 4.5$
INFO $1219 \quad$ Professional Practices ß 4.5
INFO 2981 Internship variable

## Curriculum Plan

Below is a suggested guide for students planning to complete associate degrees in Legal Studies - Legal Administrative Assistant after two years of full-time study.

## First Year

First quarter
INFO 1001
ENGL 1010
PHIL 1100
Second quarter
ENGL 1020
POLS 2060

POLS 2070
SPCH 1110
Third quarter
LAWS 1101
LAWS 1111
MATH 1410
Fourth quarter
BSAD 1100
HMRL 1010
LAWS 2324
Information Systems and Literacy
English Composition $1 \bigcirc$ 4.5

Critical Reasoning ${ }^{*}$

The Constitution -3
OR
$\begin{array}{ll}\text { Contemporary Social and Political Issues }-\mathcal{B} & 4.5 \\ \text { Public Speaking © } & 4.5\end{array}$

## Second Year

Fifth quarter
Introduction to Law
Microsoft Word for the Law Office ${ }^{-3} 4.5$
Statistics ${ }^{\bullet} \quad 4.5$

Business Law l- 4.5
Human Relations Skills $\smile$ © 4.5
Criminal Law and Procedures 4.5

INFO 1008
INFO 1012
INFO 1013
Sixth quarter
INFO 1213
INFO 1214
Seventh quarter
INFO 1215
LAWS 1230

## Eighth quarter

INFO 1219
INFO 2981
LAWS 2240
Business Office Communications $\checkmark$ ß 4.5
Electronic Filing and Calculating ${ }^{B}$ 4.5
Keyboard Skillbuilding $\quad 2.0$

Database Fundamentals $\because \quad 4.5$
Business Presentations $\mathcal{B}^{\mathcal{B}} 4.5$

Document Processing 4.5
Legal Research and Writing I 4.5

The Legal Administrative Assistant option is not a program for the education of paralegals.

## Legal Studies - Paralegal (LSPAO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree option prepares paralegals for entry-level employment in law-related occupations including public and private law practice or corporate/government activities related to law. It enables graduates to pursue further education at the college junior level.
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; and
- 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. Interested individuals should contact Student Services or the program director for details.

## Graduation Requirements

General education 27.0

Major requirements 36.0
Option requirements 17.0
Electives 22.5
Total credit hours required 102.5

## Paralegal Program Admission

The Paralegal program has special admission requirements. The application process includes the completion of both LAWS 1100 and LAWS 1101 with grades of $C$ or better and the submission of the Paralegal Program Application with original high school transcripts or GED documentation. Students are notified as to their acceptance into the program.
Students are advised to work closely with Jo Wandel (or program advisor, Tamara Fisher) to make sure that they are registered for classes at the most beneficial time for graduation from the program. Students should not complete all of their general education requirements before starting the Paralegal program.
Paralegal Program Application
Paralegal Program PowerPoint Presentation
The file is quite large, so it may take a moment to load in your browser.

## General education requirements

See General education requirements for Legal Studies (p. 82)

## Major requirements for Legal Studies

See Major requirements for Legal Studies (p. 82)

## Option requirements for Legal Studies - Paralegal (17.0 credit hrs.)

Courses

| LAWS 1100 | The Paralegal Profession | 4.5 |
| :--- | :--- | :--- |
| LAWS 1110 | Litigation | 4.5 |
| LAWS 2981 | Internship I | 4.0 |
| LAWS 2982 | Internship II | 4.0 |

Elective requirements for Legal Studies - Paralegal (22.5 credit hrs.)

Courses
Select 22.5 credit hours from the following:
ACCT $1070 \quad$ Individual Income Tax Accounting 4.0
OR
BSAD $1110 \quad$ Business Law IIß $\quad 4.5$
OR
REES 1100 Real Estate Law- 4.5
LAWS 2320 Torts 4.5
LAWS 2322 Family Law 4.5
LAWS 2323 Employment 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
Legal-specialty courses taken at another college are transferred only if they are from an ABA-approved program with substantially the same content, are for the same or more earned credit hours, and earned a grade of C or better. Credit is not available by portfolio or written examination.

## Curriculum Plan

Below is a suggested guide for students planning to complete associate degrees in Legal Studies－Paralegal after two years of full－time study．

## First Year

## First quarter

| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © |
| :---: | :---: |
| ENGL 1010 | English Composition I－ © $^{\text {c }}$ |

PHIL $1100 \quad$ Critical Reasoning $\smile$ ヲ $\quad 4.5$
$\begin{array}{lll}\text { Second quarter } & & \\ \text { ENGL } 1020 & \text { English Composition II丹৫ © }\end{array}$
POLS 2050 American National Government－ $\mathcal{B} \quad 4.5$
POLS $2060 \quad$ The Constitution－ 4.5
SPCH $1110 \quad$ Public Speaking © © 4.5
Third quarter
LAWS 1100 The Paralegal Profession 4.5
LAWS 1101 Introduction to Law 4.5
MATH 1410 Statistics ß 4.5

| Fourth quarter |  |  |
| :--- | :--- | :--- |
| BSAD 1100 | Business Law loo | 4.5 |

HMRL 1010 Human Relations Skills $\checkmark$ © 4.5
LAWS 1110 Litigation 4.5
LAWS 1111 Microsoft Word for the Law Office - B 4.5
Second Year
Paralegal electives should be taken during the second year of study．
Fifth quarter

|  | Elective | 4.5 |
| :--- | :--- | ---: |
| LAWS 1230 | Legal Research and Writing I | 4.5 |
| LAWS 2324 | Criminal Law and Procedures | 4.5 |
| Sixth quarter |  | 4.5 |
|  | Elective | 4.5 |
|  | Elective | 4.5 |
| LAWS 2240 | Legal Research and Writing II |  |
| Seventh quarter |  | 4.5 |
|  | Elective | 4.0 |
| LAWS 2982 | Internship II |  |
| Eighth quarter |  | 4.5 |
|  | Elective | 4.0 |

The Paralegal option is approved by the American Bar Association．

## Legal Studies－Pre－Law（LSPLO）

Award：Associate in applied science degree
Program location：South Omaha Campus
This degree option provides a broad foundation in the critical thinking，oral and written communication，and general research skills that prepare students who are interested in pre－law or similar courses of study at four－year institutions．Each four－year institution publishes its requirements for admission，general education， and degree major requirements．

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 36.0 |
| Option requirements | 36.0 |
| Total credit hours required | $\mathbf{9 9 . 0}$ |

## General education requirements

See General education requirements for Legal Studies（p．82）

## Major requirements for Legal Studies

See Major requirements for Legal Studies（p．82）

## Option requirements for Legal Studies－Pre－Law（36．0 credit hrs．）

Courses
Select 36.0 credit hours from the following：

| BSAD 2720 | International Marketing Management $\mathcal{B}^{\text {B }}$ | 4.5 |
| :---: | :---: | :---: |
| ECON 1000 | Macroeconomics $\checkmark^{*}$ | 4.5 |
| ECON 1100 | Microeconomics $\mathcal{B}^{\text {a }}$ | 4.5 |
| HIST 1010 | United States History to 1877 ${ }^{\text {B }}$ | 4.5 |
| HIST 1020 | U．S．History from 1865 to Present $\checkmark$ © © | 4.5 |
| LAWS 1110 | Litigation | 4.5 |
| PHIL 1010 | Introduction to Philosophy－b | 4.5 |
| PHIL 1030 | Professional Ethics ${ }^{\text {® }}$ | 4.5 |
| PHIL 2400 | Philosophy and Literature | 4.5 |
| PHIL 2600 | Contemporary Issues in Philosophy | 4.5 |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {© }}$ | 4.5 |

## Curriculum Plan

Below is a suggested guide for students planning to complete associate degrees in Legal Studies－Pre－Law option after two years of full－time study．
First Year
First Quarter
INFO 1001 Information Systems and Literacy $\bullet$ • 4.5
ENGL $1010 \quad$ English Composition I 3.5
Second Quarter
ENGL $1020 \quad$ English Composition II丹 © 4.5

POLS $2060 \quad$ The Constitution -3 4．5
OR
POLS $2070 \quad$ Contemporary Social and Political Issues - B 4.5
SPCH $1110 \quad$ Public Speaking $\bullet$ © 4.5
Third Quarter

LAWS 1101 Introduction to Law 4.5

$\begin{array}{lll}\text { Fourth Quarter } & \\ \text { BSAD } 1100 & \text { Business Law l⿶凵 } & 4.5\end{array}$
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
LAWS $2324 \quad$ Criminal Law and Procedures 4.5
Second Year
Pre－Law electives should be taken during the second year of study．
Fifth Quarter

|  | Elective | 4.5 |
| :--- | :--- | :--- |
| LAWS 1111 | Microsoft Word for the Law Officeß | 4.5 |
| LAWS 1230 | Legal Research and Writing I | 4.5 |
| Sixth Quarter |  | 4.5 |
|  | Elective | 4.5 |
| LAWS 2240 | Elective | 4.5 |
| Seventh Quarter | Legal Research and Writing II | 4.5 |
|  | Elective | 4.5 |
|  | Elective | 4.5 |
| Eighth Quarter |  | 4.5 |

The Pre－Law 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
This certificate has special admission requirements．Students must possess a baccalaureate degree from a recognized college or university to participate in this certificate option．

## Graduation Requirements

| Major requirements | 39.5 |
| :--- | :--- |
| Elective requirements | 27.0 |
| Total credit hours required | $\mathbf{6 6 . 5}$ |

## Major requirements for Paralegal Accelerated Certificate ( 39.5 credit hrs.)

## Courses

BSAD $1100 \quad$ Business Law IBB 4.5
LAWS $1100 \quad$ The Paralegal Profession 4.5
LAWS 1101 Introduction to Law 4.5
LAWS 1110 Litigation 4.5
LAWS 1111 Microsoft Word for the Law Office $\smile$ ß 4.5
LAWS 1230 Legal Research and Writing I 4.5
LAWS 2240 Legal Research and Writing II 4.5
LAWS 2981 Internship I 4.0
LAWS 2982 Internship II 4.0

## Elective requirements for Paralegal Accelerated Certificate ( 27.0 credit hrs.)

## Courses

Select 27.0 credit hours from the following:
BSAD $1110 \quad$ Business Law IIB

|  | OR |  |
| :--- | :--- | :--- |
| REES 1100 | Real Estate Law |  |
|  | 4.5 |  |

LAWS 2320 Torts 4.5
LAWS 2322 Family Law 4.5
LAWS 2323 Employment Law 4.5
LAWS 2324 Criminal Law and Procedures 4.5
LAWS $2325 \quad$ Bankruptcy, Credit, and Collections Law 4.5
LAWS 2326 Evidence and Discovery 4.5
LAWS 2327 Immigration Law 4.5
LAWS $2420 \quad$ Estate Administration 4.5
LAWS 2421 Insurance Law 4.5
LAWS 2422 Law of Corporations 4.5

## Curriculum Guide

Below is a suggested guide for students planning to complete the Legal Studies Paralegal Accelerated Certificate after one year of full-time study.
First Year

| First quarter |  |  |
| :--- | :--- | ---: |
| LAWS 1100 | The Paralegal Profession | 4.5 |
| LAWS 1101 | Introduction to Law | 4.5 |
| LAWS 1111 | Microsoft Word for the Law Office-७ | 4.5 |
| Second quarter |  |  |
| BSAD 1100 | Business Law Iß | 4.5 |
|  | Elective | 4.5 |
| LAWS 1110 | Litigation | 4.5 |
| LAWS 1230 | Legal Research and Writing I | 4.5 |
| Third quarter |  |  |
|  | Elective | 4.5 |
|  | Elective | 4.5 |
| LAWS 2240 | Legal Research and Writing II | 4.5 |
| LAWS 2981 | Internship I | 4.0 |
| Fourth quarter |  |  |
|  | Elective | 4.5 |
|  | Elective | 4.5 |
| LAWS 2982 | Internship II | 4.0 |

## Immigration Laws, Policies, and Procedures (IPPCC)

Award: Career certificate
Program location: Online
This career certificate prepares students for careers in non-governmenta organizations, local and federal government agencies, private and public institutions and businesses. This program does not qualify any person who is not a licensed attorney to practice immigration law. NOTE: This career certificate leads to a general studies degree.
The Immigration Laws, Policies, and Procedures certificate is not an option for the education of paralegals.

Requirements for Immigration Laws, Policies, and Procedures ( $25.5-27.0$ credit hrs.)

## Courses

LAWS 1500 Introduction to US Immigration Law ${ }^{0}$ 4.5
LAWS 1501 Immigration Regulatory Agencies $\backsim$ © 4.5

LAWS 1503 Immigration and Families $\smile$ - 4.5
LAWS 1505 Immigration and Employment•B 4.5
LAWS 1509 Ethics and Immigration Advocacy and 4.5
Compliance $\checkmark \checkmark$
LAWS 1581 Service Learning variable
OR
LAWS 2985 Internship: Immigration Advocacy-円 variable
LAWS 1581 or LAWS 2985 can be taken for 3.0 or 4.5 credit hrs.

## Culinary, Hospitality, and Horticulture

Who We Are
We consist of culinary arts, hospitality, and horticulture studies. These options prepare students for a variety of careers in the culinary arts, management, hospitality, and horticulture industries.

## Our Mission Statement

We create, design, and deliver educational experiences in culinary arts, hospitality, and horticulture in order to develop knowledge from basic skills to artistic mastery for employment and enrichment.

## Our Vision Statement

To be the benchmark in culinary arts, hospitality, and horticulture education.

## Culinary/Hospitality

## I. Culinary Arts and Management

The Culinary Arts and Management program offers three options that prepare students for a variety of careers in food service.

1. Baking and Pastry (100.0 - 103.0 credit hrs.)

Prepares students for a career as a professional baker or pastry chef.
2. Culinary Arts ( $100.0-103.0$ credit hrs.)

Prepares students for a career as a chef, sous chef, or culinarian.
The Baking and Pastry and the Culinary Arts options are accredited by the
American Culinary Federation Education Institute Accrediting Commission.
3. Culinology Transfer (104.0-104.5 credit hrs.)

Prepares students to work in a research lab as part of a food development
team. Success in this option requires that students have a strong interest in both foods and sciences.
The Culinology Transfer option is recognized by the Research Chefs Association and is transferable to the University of Nebraska-Lincoln.

## II. Hospitality and Restaurant Leadership

The Hospitality and Restaurant Leadership program offers two options that prepare students for a variety of leadership roles in the hospitality industry.

1. Food and Event Management (96.5 - 99.5 credit hrs.)

This option is designed to prepare students to become leaders in the careers of restaurant manager, event coordinator, food service manager, beverage manager, or many other varied careers.
2. Hospitality Entrepreneurship ( 96.0 credit hrs.)

This option provides the entrepreneurial education for students wanting to own and operate a business in the hospitality industry.

Call 402-457-2510 to schedule an appointment to discuss career and educational goals.
Degrees: Associate in Applied Science
Culinary Arts and Management

- Baking and Pastry
- Culinary Arts
- Culinology ${ }^{\text {TM }}$ Transfer

Hospitality and Restaurant Leadership

- Food and Event Management
- Hospitality Entrepreneurship


## Certificate of Achievement:

## Baking and Pastry

Culinary Arts and Management

## Career Certificate:

Culinary Arts Foundations
ManageFirst

## Culinary Arts and Management (CAAS1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree offers three options that prepare students for a variety of careers in food service: (1) Culinary Arts, (2) Baking and Pastry, and (3) Culinology Transfer.

## Graduation Requirements

| General education | 27.0 |
| :---: | :---: |
| Major requirements | 38.0 |
| Option requirements | 35.0-39.5 |
| Total credit hours required | 100.0-104.5 |
| General education requirements (27.0 credit hrs. |  |
| Communications |  |
| English level I |  |
| English level II |  |

See Communications course options (p. 25)
ENGL 1220 CA Technical Writing and ENGL 1240 CA Oral and Written Reports are recommended, as they are specific to culinary students.
Transfer students should select ENGL 1010 and ENGL 1020.
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Culinology transfer students should select ECON 1000 or ECON 1100 for social sciences requirement.

## Quantitative/numeracy skills

MATH 1242 Applied Math for the Hospitality Industry
Students planning to transfer should also take MATH 1420 and have that class count toward electives under any of the option requirements.

## Other

HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5

## Major requirements for Culinary Arts and Management (38.0 credit hrs.)

## Courses

CHRM 1000 CHRM Orientation 2.0
CHRM 1020 Sanitation $\quad 2.0$
CHRM $1030 \quad$ Culinary Foundations 1: Skills 4.0
CHRM $1120 \quad$ Soup and Sauce Basics 4.0
CHRM $1210 \quad$ Baking Basics 4.0
CHRM 1550 Customer Service 1.0
CHRM $2350 \quad$ Nutrition 4.5
CHRM 2460 Cost Management 4.5
CHRM $2470 \quad$ Hospitality Supervision $\bigcirc 3.5$
CHRM $2480 \quad$ Purchasing 4.5
CHRM 2930 Study Abroad 3.0
OR
CHRM 2981 Internship 3.0
Critical advising note: Students entering the culinary arts programs that have been 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 1242 in their first quarter of study. Approved uniforms, supplies, and text are required by the first day of CHRM 1030.

## Option requirements for Culinary Arts and Management (35.0-39.5 credit hrs.)

The Culinary Arts and Management options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Baking and Pastry (35.0-38.0 credit hrs.)
Culinary Arts and Management - Baking and Pastry (CABA2) (p. 86)
Culinary Arts (35.0-38.0 credit hrs.)
Culinary Arts and Management - Culinary Arts (CACA1) (p. 87)
Culinology ${ }^{\text {TM }}$ Transfer (39.0-39.5 credit hrs.)
Culinary Arts and Management - Culinary Research/Culinology Transfer (CACR1) (p. 88)

After completion of the Culinology degree option at MCC, the Research Chefs Association strongly recommends that students seeking to become research chefs achieve a four-year degree.
For the most current transfer listings, visit www.mccneb.edu/articulation.

## Culinary Arts and Management - Baking and Pastry (CABA2)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree option prepares students for a career as a professional baker or pastry chef.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 38.0 |
| Option requirements | $35.0-38.0$ |
| Total credit hours required | $\mathbf{1 0 0 . 0 - 1 0 3 . 0}$ |

## General education requirements

See General education requirements for Culinary Arts and Management (p. 86)
Major requirements for Culinary Arts and Management
See Major requirements for Culinary Arts and Management (p. 86)

## Option requirements for Culinary Arts and Management - Baking and Pastry (35.0-38.0 credit hrs.)

## Courses

CHRM 1220 Pastries 3.0

CHRM $1250 \quad$ Artisan Bread 4.0
CHRM 1260 Cakes 4.0
CHRM $1990 \quad$ Skills Demonstration for Bakers 0.5
CHRM $2230 \quad$ Baking Production 4.0
CHRM 2250 International Breads 3.0
CHRM $2270 \quad$ Chocolate, Sugar, and Decorations 3.0
CHRM $2280 \quad$ Plated Desserts 4.0
CHRM $2982 \quad$ Bakery Student Manager 3.0
CHRM $2990 \quad$ Portfolio Development for Bakers 0.5
Electives - select a total of 6.0 to 9.0 credit hours from the following:

| CHRM | Course of choice |
| :--- | :--- |
| HLSM | Course of choice |

## Curriculum Plan - Baking and Pastry <br> Below is a suggested guide for students planning careers in baking and pastry after two years of full-time study.

| First Year |  |  |
| :---: | :---: | :---: |
| First quarter |  |  |
| CHRM 1000 | CHRM Orientation | 2.0 |
| CHRM 1020 | Sanitationv | 2.0 |
| CHRM 1030 | Culinary Foundations 1: Skills | 4.0 |
| MATH 1242 | Applied Math for the Hospitality Industry | 4.5 |
| Second quarter |  |  |
| CHRM 1120 | Soup and Sauce Basics | 4.0 |
| CHRM 1210 | Baking Basics | 4.0 |
| CHRM 2350 | Nutrition | 4.5 |
| Third quarter |  |  |
| CHRM 1220 | Pastries | 3.0 |
| CHRM 1250 | Artisan Bread | 4.0 |
|  | OR |  |
| CHRM 1260 | Cakes | 4.0 |
| CHRM 1550 | Customer Service | 1.0 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| Fourth quarter |  |  |
| CHRM 1250 | Artisan Bread | 4.0 |
|  | OR |  |
| CHRM 1260 | Cakes | 4.0 |
| CHRM 1990 | Skills Demonstration for Bakers | 0.5 |
| CHRM 2460 | Cost Management | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| CHRM 2230 | Baking Production | 4.0 |
| CHRM 2250 | International Breads | 3.0 |
|  | OR |  |
| CHRM 2270 | Chocolate, Sugar, and Decorations | 3.0 |
| CHRM 2480 | Purchasing | 4.5 |
|  | Humanities | 4.5 |
| Sixth quarter |  |  |
| CHRM 2280 | Plated Desserts | 4.0 |
| CHRM 2250 | International Breads | 3.0 |
|  | OR |  |
| CHRM 2270 | Chocolate, Sugar, and Decorations | 3.0 |
| ENGL 1220CA | Technical Writing | 4.5 |
| Seventh quarter |  |  |
| CHRM 2470 | Hospitality Supervision-® | 4.5 |
| CHRM 2982 | Bakery Student Manager | 3.0 |
| CHRM | Elective | 3.0-4.5 |


| Eighth quarter |  |  |
| :--- | :--- | ---: |
| CHRM 2981 | Internship | 3.0 |
| CHRM 2990 | Portfolio Development for Bakers | 0.5 |
| CHRM | Elective | $3.0-4.5$ |
| ENGL 1240CA | Oral and Written Reports | 4.5 |

## Culinary Arts and Management - Culinary Arts (CACA1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree option prepares students for a career as a chef, sous chef or culinarian.

## Graduation Requirements

| General education | 27.0 |
| :--- | :---: |
| Major requirements | 38.0 |
| Option requirements | $35.0-38.0$ |
| Total credit hours required | $\mathbf{1 0 0 . 0 - 1 0 3 . 0}$ |

## General education requirements

See General education requirements for Culinary Arts and Management (p. 86)
Major requirements for Culinary Arts and Management
See Major requirements for Culinary Arts and Management (p. 86)
Option requirements for Culinary Arts and Management - Culinary Arts (35.0-38.0 credit hrs.)

Courses
CHRM 1035 Culinary Foundations 2: Cuisines 4.0
CHRM $1130 \quad$ Protein Fabrication 3.0
CHRM 1140 A la Carte Cookery: American Regional 3.0
CHRM $1999 \quad$ Skills Demonstration for Culinarians 0.5
CHRM $2110 \quad$ Quantity Production 4.0
CHRM $2120 \quad$ Garde Manger 4.0
CHRM 2130 Fine Dining 4.0
CHRM $2550 \quad$ Table Service 3.0
CHRM $2980 \quad$ Student Manager 3.0
CHRM $2999 \quad$ Portfolio Development for Culinarians 0.5
Electives - select a total of 6.0 to 9.0 credit hours from the following:
CHRM Course of choice
HLSM Course of choice

## Curriculum Plan - Culinary Arts

Below is a suggested guide for students planning careers in culinary arts after two years of full-time study.

## First Year

First quarter
CHRM $1000 \quad$ CHRM Orientation 2.0
CHRM 1020 Sanitation 2.0
CHRM 1030
MATH 1242
Second quarter
CHRM 1035
CHRM 1210
CHRM 2350
Third quarter
CHRM 1120
CHRM 1130
Soup and Sauce Basics
CHRM $1130 \quad$ Protein Fabrication 3.0
CHRM $1550 \quad$ Customer Service 1.0
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5

| Fourth quarter |  |  |
| :---: | :---: | :---: |
| CHRM 1140 | A la Carte Cookery: American Regional | 3.0 |
| CHRM 1999 | Skills Demonstration for Culinarians | 0.5 |
| CHRM 2460 | Cost Management | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| Second Year |  |  |
| Fitth quarter |  |  |
| CHRM 2110 | Quantity Production | 4.0 |
| CHRM 2470 | Hospitality Supervision-* | 4.5 |
|  | Humanities | 4.5 |
| Sixth quarter |  |  |
| CHRM 2120 | Garde Manger | 4.0 |
| CHRM 2480 | Purchasing | 4.5 |
| CHRM | Elective | 3.0-4.5 |
| Seventh quarter |  |  |
| CHRM 2130 | Fine Dining | 4.0 |
| CHRM 2550 | Table Service | 3.0 |
| CHRM | Elective | 3.0-4.5 |
| ENGL 1220CA | Technical Writing | 4.5 |
| Eighth quarter |  |  |
| CHRM 2980 | Student Manager | 3.0 |
| CHRM 2981 | Internship | 3.0 |
| CHRM 2999 | Portfolio Development for Culinarians | 0.5 |
| ENGL 1240CA | Oral and Written Reports | 4.5 |

## Culinary Arts and Management - Culinary <br> Research/Culinology Transfer (CACR1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree option prepares students to work in a research lab as part of a food development team. Success in this option requires that students have a strong interest in both foods and sciences.

| Graduation Requirements |  |
| :--- | :--- |
| General education | 27.0 |
| Major requirements | 38.0 |
| Option requirements | $39.0-39.5$ |
| Total credit hours required | $\mathbf{1 0 4 . 0 - 1 0 4 . 5}$ |

## General education requirements

See General education requirements for Culinary Arts and Management (p. 86)
Major requirements for Culinary Arts and Management
See Major requirements for Culinary Arts and Management (p. 86)
Option requirements for Culinary Arts and Management - Culinary Research/Culinology Transfer (39.0-39.5 credit hrs.)

## Courses

| CHRM 1035 | Culinary Foundations 2: Cuisines | 4.0 |
| :--- | :--- | :--- |
| CHEM 1212 | General Chemistry I: Accelerated | 6.0 |
| CHRM 1130 | Protein Fabrication | 3.0 |
| CHRM 1140 | A la Carte Cookery: American Regional | 3.0 |
| CHRM 1999 | Skills Demonstration for Culinarians | 0.5 |
| CHRM 2360 | Physiology of Flavor | 4.5 |
| CHRM 2370 | Food Science® | 4.5 |
| CHRM 2380 | Sensory Science Products | 4.5 |
| CHRM 2390 | Research and Development of Food | 4.5 |
|  | Products |  |
| CHRM 2999 | Portfolio Development for Culinarians | 0.5 |

CHRM 2360: prerequisites CHRM 1030 and CHRM 1035

CHEM 1212: Students expecting to transfer to the University of Nebraska-Lincoln for Culinology should also take CHEM 1220.
CHRM 2370, CHRM 2380 (Winter only), and CHRM 2390 (Spring only) should be taken in sequence starting in the Fall quarter.
Electives - select 4.0 to 4.5 credit hours from the following:
CHRM $2120 \quad$ Garde Manger
CHRM $2130 \quad$ Fine Dining 4.0

CHRM $1250 \quad$ Artisan Bread 4.0
CHRM $2110 \quad$ Quantity Production 4.0
CHRM $2465 \quad$ Food Service Financial Management 4.5
NOTE: Taking over the maximum number of elective hours for your degree option may have financial aid ramifications. Please see your academic advisor for direction.

## Curriculum Plan - Culinology

Below is a suggested guide for students planning careers in culinology after two years of full-time study.

## First Year

First quarter
CHRM $1000 \quad$ CHRM Orientation 2.0
CHRM 1020 Sanitation 2.0

CHRM $1030 \quad$ Culinary Foundations 1: Skills 4.0
MATH $1242 \quad$ Applied Math for the Hospitality Industry 4.5
$\begin{array}{lll}\text { Second quarter } & & \\ \text { CHRM } 1035 & \text { Culinary Foundations 2: Cuisines } & 4.0\end{array}$
CHRM $1210 \quad$ Baking Basics 4.0
CHRM $2350 \quad$ Nutrition 4.5
Third quarter
CHRM $1120 \quad$ Soup and Sauce Basics 4.0
CHRM $1130 \quad$ Protein Fabrication 3.0

CHRM $1550 \quad$ Customer Service 1.0
CHEM $1212 \quad$ General Chemistry I: Accelerated 6.0
CHEM 1212L General Chemistry I: Accelerated Lab 0.0
Fourth quarter
CHRM 1140 A la Carte Cookery: American Regional 3.0

CHRM $1999 \quad$ Skills Demonstration for Culinarians 0.5
CHRM $2460 \quad$ Cost Management 4.5
ENGL $1010 \quad$ English Composition 1 © © 4.5
Second Year

## Fifth quarter

CHRM $2360 \quad$ Physiology of Flavor 4.5
CHRM 2370 Food Science $\smile$ - 4.5
CHRM $2470 \quad$ Hospitality Supervision $-3 \quad 4.5$
CHRM 2370: (Fall only)
Sixth quarter
CHRM $2380 \quad$ Sensory Science Products 4.5
CHRM $2480 \quad$ Purchasing 4.5

ENGL $1020 \quad$ English Composition IIß
CHRM 2380: (Winter only)
Seventh quarter

| CHRM 2390 | Research and Development of Food <br> Products | 4.5 |
| :--- | :--- | ---: |
| CHRM | Elective | $4.0-4.5$ |
| HMRL 1010 | Human Relations Skills $\because$ © | 4.5 |
| CHRM 2390: (Spring only) |  |  |
| Eighth quarter |  | 3.0 |
| CHRM 2981 | Internship | 0.5 |
| CHRM 2999 | Portfolio Development for Culinarians | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| ECON 1000 | Macroeconomics |  |
|  | OR | 4.5 |

## Baking and Pastry (CBPCE)

Award: Certificate of achievement
Program location: Fort Omaha Campus
This certificate of achievement prepares students for entry-level skilled positions in the food industry. This first-year baking certificate provides an opportunity for students to move quickly into the industry and begin working.

Graduation Requirements


## Culinary Arts and Management (CAMCE)

Award: Certificate of achievement
Program location: Fort Omaha Campus
This certificate of achievement prepares students for entry-level skilled positions in the food industry. It provides basic skills for a variety of opportunities within the industry. This first-year culinary certificate provides an opportunity for students to move quickly into the industry and begin working.

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | 36.5 |
| Total credit hours required | $\mathbf{5 0 . 0}$ |

## General education requirements ( 13.5 credit hrs.)

## Communications

## English level I

4.5

ENGL 1220 CA is recommended.

| Quantitative/numeracy skills |  |
| :--- | :---: |
| MATH $1242 \quad$ Applied Math for the Hospitality Industry | 4.5 |
| Humanities/social sciences |  |
| $\quad$ Humanities/social sciences | 4.5 |
| See Humanities/social sciences course options (p. 25) |  |

See Humanities/social sciences course options (p. 2ऽ)

## Major requirements for Culinary Arts and Management ( 36.5 credit hrs.)

## Courses

CHRM 1000 CHRM Orientation 2.0
CHRM 1020 Sanitation 2.0
CHRM $1030 \quad$ Culinary Foundations 1: Skills 4.0
CHRM 1035 Culinary Foundations 2: Cuisines 4.0
CHRM 1120 Soup and Sauce Basics 4.0
CHRM $1130 \quad$ Protein Fabrication 3.0
CHRM 1140 A la Carte Cookery: American Regional 3.0
CHRM 1210 Baking Basics 4.0
CHRM 1550 Customer Service 1.0
CHRM $1999 \quad$ Skills Demonstration for Culinarians 0.5
CHRM 2350 Nutrition 4.5
CHRM 2460 Cost Management 4.5

## Culinary Arts Foundations (CAFSD)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate demonstrates students' completion of foundational skills in culinary arts and baking. Course prerequisites may be required to begin the specialization.

## Requirements for Culinary Arts Foundations career certificate ( 29.5 credit hrs.)

Courses
CHRM $1000 \quad$ CHRM Orientation 2.0
CHRM 1020 Sanitation ${ }^{B}$ 2.0
CHRM $1030 \quad$ Culinary Foundations 1: Skills 4.0
CHRM 1035 Culinary Foundations 2: Cuisines 4.0
CHRM $1210 \quad$ Baking Basics 4.0
CHRM $2350 \quad$ Nutrition 4.5
Humanities elective 4.5
Elective 4.5

## Hospitality and Restaurant Leadership (CHRAS)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree offers two options that prepare students for a variety of leadership roles in the hospitality industry.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 46.5 |
| Option requirements | $22.5-26.0$ |
| Total credit hours required | $96.0-99.5$ |

General education requirements ( 27.0 credit hrs.)

Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
ENGL 1220 CA Technical Writing and ENGL 1240 CA Oral and Written Report for Culinarians are recommended. Transfer students should select ENGL 1010 and ENGL 1020.

## Humanities/social sciences

Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Transfer students should select ECON 1000 or 1100 for social sciences requirement.
Quantitative/numeracy skills
MATH 1242 Applied Math for the Hospitality Industry
Students planning to transfer should also take MATH 1420 and have that class count toward electives under any of the option requirements.
Other
HMRL $1010 \quad$ Human Relations Skills $७$ • 4.5
INFO 1001 Information Systems and Literacy • 4.5

## Major requirements for Hospitality and Restaurant Leadership (46.5 credit hrs.)

## Courses

CHRM 1000 CHRM Orientation 2.0
CHRM 1020 Sanitation 3.0
CHRM $1030 \quad$ Culinary Foundations 1: Skills 4.0
CHRM $1550 \quad$ Customer Service 1.0
CHRM $2410 \quad$ Marketing and Industry Perspectives 3.0
CHRM $2460 \quad$ Cost Management 4.5
CHRM $2465 \quad$ Food Service Financial Management 4.5
CHRM 2470 Hospitality Supervision $\because$ B 4.5
CHRM 2475 Leadership Principles 4.5
CHRM $2480 \quad$ Purchasing 4.5
CHRM 2550 Table Service 3.0
CHRM $2560 \quad$ Beverage Management 3.0
CHRM $2980 \quad$ Student Manager 3.0
CHRM $2989 \quad 3.0$
CHRM $2910 \quad$ Restaurant Consulting Practicum 3.0
Critical advising note: Students entering the hospitality program who have been assessed at college-level in all areas and/or completed developmental courses should register for CHRM 1000, CHRM 1020, CHRM 1030 and MATH 1242 in their first quarter. Approved uniform, supplies, and text are required by the first day of CHRM 1030.

## Requirements for Hospitality and Restaurant Leadership options (22.5-26.0 credit hrs.)

In pursuing the Hospitality and Restaurant Leadership degree, students may select from the menu of options listed below. See the following sections for the specific additional courses required within each option.
Food and Event Management (23.0-26.0 credit hrs.)
Hospitality and Restaurant Leadership - Food and Event Management (CHFA1) (p. 90)

Hospitality Entrepreneurship (22.5 credit hrs.)
Hospitality and Restaurant Leadership - Hospitality Entrepreneurship (CHBA1) (p. 91)

## Hospitality and Restaurant Leadership - Food and Event Management (CHFA1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree option prepares students to become leaders in the careers of restaurant manager, event coordinator, hospitality consultant, beverage director, or many other varied careers.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 46.5 |
| Option requirements | $23.0-26.0$ |

## General education requirements

See General education requirements for Hospitality and Restaurant Leadership (p. 89)

## Major requirements for Hospitality and Restaurant Leadership

See Major requirements for Hospitality and Restaurant Leadership (p. 90)
Option requirements for Hospitality and Restaurant Leadership - Food and Event Management (23.0-26.0 credit hrs.)
Courses
BSAD 1100 Business Lawl-® 4.5
CHRM 1035 Culinary Foundations 2: Cuisines 4.0
OR
CHRM $1210 \quad$ Baking Basics 4.0
CHRM $2350 \quad$ Nutrition 4.5
CHRM 2610 Event Planning 3.0
CHRM $2650 \quad 3.0$
Electives - select a total of 4.0 to 7.0 credit hours from the following:

| BSAD | Course of choice |
| :--- | :--- |
| CHRM | Course of choice |
| ENTR | Course of choice |

HLSM Course of choice
NOTE: Taking over the maximum number of elective hours for your degree option may have financial aid ramifications. Please see your academic advisor for direction.

## Curriculum Plan - Food and Event Management

Below is a suggested guide for students planning careers in food and event management after two years of full-time study.

## First Year

First quarter
CHRM 1000
CHRM 1020
CHRM 1030
MATH 1242
CHRM Orientation 2.0
Sanitation 2.0
Culinary Foundations 1: Skills 4.0
Applied Math for the Hospitality Industry 4.5

## Second quarter

CHRM 1035
Culinary Foundations 2: Cuisines 4.0
OR
CHRM $1210 \quad$ Baking Basics 4.0
ENGL $1010 \quad$ English Composition Iß © 4.5
INFO 1001
Third quarter
CHRM 1550
CHRM 2350
CHRM 2460
Fourth quarter
CHRM 2480
ENGL 1020
HMRL 1010
English Composition II• ©
4.5

Second Year
Fifth quarter
CHRM 2410
CHRM 2470
CHRM 2560
CHRM
Sixth quarter
BSAD 1100
CHRM 2465
CHRM 2610

Marketing and Industry Perspectives 3.0
Hospitality Supervision $3 \quad 4.5$
Beverage Management 3.0
Elective 3.0

Business Law l-
4.5

Food Service Financial Management 4.5
Event Planning 3.

Total credit hours required
96.5-99.5

| Seventh quarter |  |  |
| :--- | :--- | :--- |
| CHRM 2475 | Leadership Principles | 4.5 |
| CHRM 2550 | Table Service | 3.0 |
| CHRM 2650 | Banquet Service | 3.0 |
| Eighth quarter |  |  |
| CHRM 2980 | Student Manager | 3.0 |
| CHRM 2989 | Hospitality Management Intern | 3.0 |
| CHRM | Elective | 4.0 |
|  | Humanities | 4.5 |

## Hospitality and Restaurant Leadership Hospitality Entrepreneurship (CHBA1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree option provides the entrepreneurial education for students wanting to own and operate businesses in the hospitality industry.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 46.5 |
| Option requirements | 22.5 |
| Total credit hours required | 96.0 |

## General education requirements

See General education requirements for Hospitality and Restaurant Leadership (p. 89)

## Major requirements for Hospitality and Restaurant Leadership

See Major requirements for Hospitality and Restaurant Leadership (p. 90)
Option requirements for Hospitality and Restaurant Leadership - Hospitality Entrepreneurship ( 22.5 credit hrs.)

## Courses

ENTR $1050 \quad$ Introduction to Entrepreneurship $\because$ © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study ${ }^{\text {® }} 4.5$
ENTR $2060 \quad$ Legal Issues for the Entrepreneur- 3
ENTR $2070 \quad$ Financial Topics for the Entrepreneur伊 4.5
ENTR $2090 \quad$ Entrepreneurship Business Plan $७$ 4.5

## Curriculum Plan - Hospitality Entrepreneurship

Below is a suggested guide for students planning careers in hospitality entrepreneurship after two years of full-time study.

## First Year

First quarter
CHRM 1000
CHRM 1020
CHRM 1030
MATH 1242
Second quarter

Third quarter
CHRM 1550
CHRM 2460
ENTR 2040
Fourth quarter
CHRM 2480
ENGL 1020
HMRL 1010

ENTR $1050 \quad$ Introduction to Entrepreneurship © © 4.5
ENGL $1010 \quad$ English Composition Iß $\bullet$ • 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5
CHRM Orientation 2.0
Sanitation 3 2.0
Culinary Foundations 1: Skills 4.0
Applied Math for the Hospitality Industry 4.5

Customer Service
1.0

Cost Management 4.5
Entrepreneurship Feasibility Study ${ }^{\text {© }} 4.5$

Purchasing 4.5
English Composition IIf © 4.5
Human Relations Skills $७$ © 4.5

| Second Year |  |  |
| :--- | :--- | :--- |
| Fifth quarter |  | 3.0 |
| CHRM 2410 | Marketing and Industry Perspectives | 4.5 |
| CHRM 2470 | Hospitality Supervision | 4.5 |
| CHRM 2475 | Leadership Principles |  |
| Sixth quarter |  | 4.5 |
| CHRM 2465 | Food Service Financial Management | 3.0 |
| CHRM 2550 | Table Service | 4.5 |
| ENTR 2060 | Legal Issues for the Entrepreneur- |  |
| Seventh quarter |  | 3.0 |
| CHRM 2560 | Beverage Management | 4.5 |
| ENTR 2070 | Financial Topics for the Entrepreneur® | 4.5 |
| ENTR 2090 | Entrepreneurship Business Plan- |  |
| Eighth quarter |  | 3.0 |
| CHRM 2980 | Student Manager | 3.0 |
| CHRM 2989 | Hospitality Management Intern | 4.5 |

## ManageFirst (CHMCC)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate allows hospitality and culinary professionals 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, students must earn NRAEF certification in the core credential courses plus certification in one additional course listed, log 800 hours of industry work, and complete a separate application process Call 402-457-2510 for complete details.

## Requirements for ManageFirst career certificate (25.5 credit hrs.)

Courses
CHRM 1020 Sanitation ${ }^{\text {B }} 2.0$
CHRM 1550 Customer Service 1.0
CHRM 2460 Cost Management 4.5
CHRM 2465 Food Service Financial Management 4.5
CHRM 2470 Hospitality Supervision -3.5
CHRM 2475 Leadership Principles 4.5
CHRM $2480 \quad$ Purchasing 4.5
Core credential courses: CHRM 1020, CHRM 2460, CHRM 2470, and CHRM 2475

## Horticulture, Land Systems, and Management

This program prepares students for careers in the vast industries of horticulture and land systems. Studies include production, design, handling, sales, harvesting, packaging, shipping, management, and maintenance depending upon the option of study.
Degree: Associate in Applied Science
These programs prepare students for careers in nursery or landscaping businesses by focusing on production, handling, sales, selection, entrepreneurship, and maintenance of materials and products.

## Floriculture

This option focuses on the production, handling, sale, and use of greenhouse crops, flower crops, bedding crops, and foliage plants.

## Grounds Management

This option focuses on the care, identification, installation and maintenance of plants and hardscapes.
Horticulture Management
This option focuses on the management of production, handling, sale, and care of plants.
Landscape Design (Pre-Landscape Architecture)
This option focuses on design and the use of technology in relation to the land.

## Small Market Farming

This option focuses on the knowledge and skills needed to run a small market farm.

## Certificate of Achievement:

## Horticulture

This certificate of achievement provides students the opportunity to move quickly into the industry and begin working at an entry level.
Career Certificate:
Arboriculture
Floriculture
Landscape Design
Nursery and Landscape Management
Plant Production and Propagation
Small Market Farming

## Horticulture, Land Systems, and Management (HLAAS)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This program prepares students for careers in the vast industries of horticulture and land systems. Studies include production, design, handling, sales, harvesting, packaging, shipping, management, and maintenance depending upon the option of study.

## Graduation Requirements

| General education | 27.0 |
| :--- | :---: |
| Major requirements | 40.0 |
| Course track offerings | $30.0-36.0$ |
| Total credit hours required | $97.0-103.0$ |

## General education requirements ( 27.0 credit hrs.)

Communications

English level I 4.5
English level II 4.5
See Communications course options (p. 25)
Humanities/Social Sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)

| Quantitative/Numeracy Skills |  |  |
| :--- | :--- | :--- |
| MATH 1240 | Applied Mathematics | 4.5 |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\because$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy丹 © | 4.5 |

Major requirements for Horticulture, Land Systems, and Management ( 40.0 credit hrs.)

## Courses

BSAD $1000 \quad$ Introduction to Business $\checkmark$ ® 4.5
HLSM $1000 \quad$ Horticulture, Land Systems, and 1.0
HLSM $1010 \quad$ Introduction to Horticulture 6.0
HLSM $1020 \quad$ Introduction to Aquaponics 3.0
HLSM $1100 \quad$ Perennials: Culture and Identification 3.0
BIOS $1400 \quad$ Introduction to Botany 4.5
BIOS 1400L Introduction to Botany Lab 0.0
HLSM $2410 \quad$ Seed Propagation 3.0
HLSM $2415 \quad$ Vegetative Propagation 3.0
HLSM $2420 \quad$ Plant Pathology 3.0
HLSM $2425 \quad$ Entomology 3.0
HLSM 2910 Internship 3.0

## Option requirements for Horticulture, Land Systems, and Management ( $30.0-36.0$ credit hrs.)

Floriculture ( 32.5 credit hrs.)
Floriculture (HLMFO) (p. 92)
Grounds Management ( 30.0 credit hrs.)
Grounds Management (HLMGO) (p. 92)
Horticulture Management ( 36.0 credit hrs.)
Horticulture Management (HLMHO) (p. 93)
Landscape Design (30.0 credit hrs.)
Landscape Design (HLMLO) (p. 93)
Small Market Farming (30.0 credit hrs.)
Small Market Farming (HLMSO) (p. 93)

## Floriculture (HLMFO)

Award: Associate in applied science degree Program location: Fort Omaha Campus

This option focuses on the production, handling, sale, and use of greenhouse crops, flower crops, bedding crops, and foliage plants.

## Graduation Requirements

General education 27.0

Major requirements 40.0
Option requirements 32.5
Total credit hours required 99.5

## General education requirements

See General education requirements for Horticulture, Land Systems, and Management (p. 92)

## Major requirements for Horticulture, Land Systems, and Management

See Major requirements for Horticulture, Land Systems, and Management (p. 92)
Option requirements for Floriculture ( 32.5 credit hrs.)
Courses
BSAD $1010 \quad$ Principles of Marketing -3.5
HLSM $1030 \quad$ Introduction to Floral Design 3.0
HLSM $1160 \quad$ Culinary Herb Cultivation 3.0
HLSM $1210 \quad$ Floral Design: Specialty Events and 3.0
HLSM $1220 \quad$ Floral Design: Tablescapes and Hospitality 3.0
HLSM $1300 \quad$ History of Design 3.0
HLSM $1310 \quad$ Introduction to Design 3.0
HLSM $2200 \quad$ Floral Design: Weddings 3.0
HLSM 2210 Interiorscaping 3.0
HLSM $2610 \quad$ Floriculture Production 3.0

## Grounds Management (HLMGO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This option focuses on the care, identification, installation and maintenance of plants and hardscapes.

## Graduation Requirements

General education 27.0

Major requirements 40.0
Option requirements 30.0
Total credit hours required 97.0

## General education requirements

See General education requirements for Horticulture, Land Systems, and Management (p. 92)

## Major requirements Horticulture, Land Systems, and Management

See Major requirements for Horticulture, Land Systems, and Management (p. 92)

## Option requirements for Grounds Management (30.0 credit hrs.)

## Courses

HLSM 1110 Turfgrass Management 3.0
HLSM $1130 \quad$ Deciduous Trees: Culture and Identification 3.0
HLSM 1140 Coniferous Trees: Culture and Identification 3.0
HLSM $1150 \quad$ Shrubs: Culture and Identification 3.0
HLSM $1310 \quad$ Introduction to Design 3.0
HLSM $1400 \quad$ Natural Systems and Sustainability 3.0
HLSM $2310 \quad$ Construction Documents and Details 3.0
HLSM $2320 \quad$ Grounds Construction and Maintenance 3.0
HLSM 2400 Site Systems 3.0
HLSM $2620 \quad$ Nursery and Garden Center Practices 3.0

## Horticulture Management (HLMHO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This option focuses on the management of production, handling, sale, and use of plants.

## Graduation Requirements

General education 27.0
Major requirements 40.0
Option requirements 36.0
Total credit hours required 103.0

## General education requirements

See General education requirements for Horticulture, Land Systems, and Management (p. 92)

## Major requirements for Horticulture, Land Systems, and Management

See Major requirements for Horticulture, Land Systems, and Management (p. 92)

## Option requirements for Horticulture Management (36.0

 credit hrs.)
## Courses

HLSM $1110 \quad$ Turfgrass Management 3.0
HLSM $1120 \quad$ Pomology: Culture and Identification 3.0
HLSM 1130 Deciduous Trees: Culture and Identification 3.0
HLSM 1140 Coniferous Trees: Culture and Identification 3.0
HLSM $1150 \quad$ Shrubs: Culture and Identification 3.0
HLSM $1160 \quad$ Culinary Herb Cultivation 3.0
HLSM $1400 \quad$ Natural Systems and Sustainability 3.0
HLSM $2400 \quad$ Site Systems 3.0
HLSM $2500 \quad$ Small Market Farming 3.0
HLSM $2510 \quad$ Olericulture 3.0
HLSM $2610 \quad$ Floriculture Production 3.0
HLSM $2620 \quad$ Nursery and Garden Center Practices 3.0
Landscape Design (HLMLO)Award: Associate in applied science degree
Program location: Fort Omaha Campus
This option focuses on design and the use of technology in relation to the land.
Graduation Requirements
General education ..... 27.0
Major requirements ..... 40.0
Option requirements ..... 30.0
Total credit hours required ..... 97.0
General education requirementsSee General education requirements for Horticulture, Land Systems, andManagement (p. 92)
Major requirements for Horticulture, Land Systems, and Management
See Major requirements for Horticulture, Land Systems, and Management (p. 92)
Option requirements for Landscape Design ( 30.0 credit hrs.)
Courses
HLSM $1130 \quad$ Deciduous Trees: Culture and Identification 3.0HLSM $1140 \quad$ Coniferous Trees: Culture and Identification 3.0
HLSM 1150 ..... 3.03.0
HLSM 1300 ..... 3.0
HLSM 1310 Introduction to DesignHLSM 1320HLSM 1400Landscape Graphics3.03.0
3.0
HLSM $2310 \quad$ Construction Documents and Details ..... 3.0
HLSM 2330 Therapeutic Horticulture ..... 3.0
HLSM 2340 Introduction to Regional Planning ..... 3.0
HLSM 2400 Site Systems ..... 3.0
Small Market Farming (HLMSO)
Award: Associate in applied science degree
Program location: Fort Omaha Campusof plants
Graduation Requirements
General education ..... 27.0
Major requirements ..... 40.0
Option requirements ..... 30.0
Total credit hours required ..... 97.0
General education requirementsSee General education requirements for Horticulture, Land Systems, andManagement (p. 92)
Major requirements for Horticulture, Land Systems, and Management


## Arboriculture (HLACC)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to enter into a tree care and landscape maintenance career field.

## Requirements for Arboriculture career certificate (27.0 credit hrs.)

## Courses

HLSM $1010 \quad$ Introduction to Horticulture 6.0
HLSM $1120 \quad$ Pomology: Culture and Identification 3.0
HLSM $1130 \quad$ Deciduous Trees: Culture and Identification 3.0
HLSM $1140 \quad$ Coniferous Trees: Culture and Identification 3.0
HLSM $1150 \quad 3.0$

| HLSM 2420 | Plant Pathology | 3.0 |
| :--- | :--- | :--- |
| HLSM 2425 | Entomology | 3.0 |

Floriculture (HLFCC)
Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to enter into the florist industry or floral design field.

## Requirements for Floriculture career certificate (25.0 credit hrs.)

Courses
HLSM 1010 Introduction to Horticulture 6.0
HLSM $1030 \quad$ Introduction to Floral Design 3.0
HLSM $1210 \quad$ Floral Design: Specialty Events and 3.0
Occasions
HLSM $1220 \quad$ Floral Design: Tablescapes and Hospitality 3.0
HLSM $2200 \quad$ Floral Design: Weddings 3.0
HLSM 2210 Interiorscaping 3.0
HLSM $2610 \quad$ Floriculture Production 3.0
Landscape Design (HLLCC)
Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to enter into the landscape maintenance and entry-level design career field.

## Requirements for Landscape Design career certificate (30.0 credit hrs.)

## Courses

HLSM 1010 Introduction to Horticulture 6.0
HLSM $1130 \quad$ Deciduous Trees: Culture and Identification 3.0
HLSM $1140 \quad$ Coniferous Trees: Culture and Identification 3.0
HLSM $1150 \quad$ Shrubs: Culture and Identification 3.0
HLSM $1310 \quad$ Introduction to Design 3.0
HLSM 1320 Landscape Graphics 3.0
HLSM $2300 \quad$ Advanced Design 3.0
HLSM $2310 \quad$ Construction Documents and Details 3.0
HLSM 2400 Site Systems 3.0

## Nursery and Landscape Management (HLNCC)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to enter into greenhouse, landscape maintenance, and nursery management fields.

## Requirements for Nursery and Landscape Management career certificate ( 30.0 credit hrs.)

## Courses

HLSM 1010 Introduction to Horticulture 6.0
HLSM $1120 \quad$ Pomology: Culture and Identification 3.0
HLSM $1130 \quad$ Deciduous Trees: Culture and Identification 3.0
HLSM $1140 \quad$ Coniferous Trees: Culture and Identification 3.0
HLSM $1150 \quad 3.0$
HLSM $1400 \quad$ Natural Systems and Sustainability 3.0
HLSM 2400 Site Systems 3.0
HLSM $2610 \quad$ Floriculture Production 3.0
HLSM $2620 \quad$ Nursery and Garden Center Practices 3.0

## Plant Production and Propagation (HLPCC)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to enter into greenhouse production and management and nursery production and management career fields.

## Requirements for Plant Production and Propagation career certificate ( 27.0 credit hrs.)

## Courses

HLSM $1010 \quad$ Introduction to Horticulture 6.0
HLSM $2410 \quad$ Seed Propagation 3.0
HLSM $2415 \quad$ Vegetative Propagation 3.0
HLSM $2420 \quad$ Plant Pathology 3.0
HLSM 2425 Entomology 3.0
HLSM $2610 \quad$ Floriculture Production 3.0
HLSM $2620 \quad$ Nursery and Garden Center Practices 3.0

## Small Market Farming (HLSCC)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate prepares students to pursue entrepreneurial growing operations or enter into an existing small market business.

| Requirements for Small Market Farming career |  |  |
| :--- | :--- | :--- |
| certificate (30.0 credit hrs.) |  |  |
| Courses |  |  |
| HLSM 1010 | Introduction to Horticulture | 6.0 |
| HLSM 1020 | Introduction to Aquaponics | 3.0 |
| HLSM 1120 | Pomology: Culture and Identification | 3.0 |
| HLSM 1160 | Culinary Herb Cultivation | 3.0 |
| HLSM 2420 | Plant Pathology | 3.0 |
| HLSM 2425 | Entomology | 3.0 |
| HLSM 2510 | Olericulture | 3.0 |
| HLSM 2520 | Introduction to Small Animal Husbandry | 3.0 |

## English, English as a Second Language, and Reading

## Who We Are

The English, English as a Second Language, and Reading academic area supports the College in accomplishing its mission as a comprehensive community college. The departments and prefixes within this area are:

- English department (ENGL (p. 188))
- English as a Second Language (ESLX (p. 191))
- Reading and Learning Skills (RDLS (p. 228))
- Writing Center


## Our Mission Statement

English, English as a Second Language, and Reading and Learning
Skills courses provide opportunities for students to develop:

- Effective written and spoken communication
- Abilities to think, listen, and read critically
- Skills and interest to seek out, process, and manage information through research
- Understanding of diverse cultures and engagement in society
- Appreciation for and participation in creative expression


## General Studies

Degree: Associate in Applied Science
General Studies
Certificates of Achievement
General Studies
Career Certificates
General Studies

## General Studies (GSAAS)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This 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. Students should work with an advisor or counselor in planning the coursework for this degree.

Graduation Requirements
General education 42.0-43.5

Major requirements 36.0
Electives
18.0

Total credit hours required 96.0-97.5

## General education requirements ( $42.0-43.5$ credit hrs.)

Students should be aware that additional college-level courses are required for most four-year programs. To satisfy general education requirements for most fouryear degrees, select from the transfer options.


See Quantitative/Numeracy Skills course options (p. 27) and/or Transfer course options (p. 150)
Natural sciences
Natural sciences
6.0-7.5

See Natural Sciences course options (p. 27) and/or Transfer course options (p. 150)

Humanities
Humanities
See Humanities course options (p. 25) and/or Transfer course options (p. 150)
Other
HMRL 1010 Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacy © © 4.5
Major requirements for General Studies (36.0 credit hrs.)

## Courses

Complete a minimum of 36.0 credit hours of courses, selecting from a maximum of two prefixes. Students with specific areas of interest are able to combine course prefixes to meet these requirements. See areas of interest for major requirements (p. 96).

## Electives for General Studies ( 18.0 credit hrs.)

## Courses

Select 18.0 credit hours.

## Areas of interest for major requirements

Students can tailor a specific interest into an associate degree program by combining course prefixes to meet their General Studies major requirements. Listed below are the areas of interest and the acceptable course prefixes that can be considered as a single prefix:

## Global-cultural

For students interested in global/cultural, any combination of the following prefixes is considered as a single prefix: GEOG, HIST, HUMS, PHIL, POLS, and SOCI.

## Management:

For students interested in management, any combination of the following prefixes is considered as a single prefix: ACCT, BSAD, ECON, ENTR, FINA, INSU, and REES.

## Science/health:

For students interested in science/health, any combination of the following prefixes is considered as a single prefix: BIOS, CHEM, HLTH, PHYS, SCIE, EMSP, MDST, and FIST.

## Visual arts:

For students interested in visual arts, any combination of the following prefixes is considered as a single prefix: ARTS, DIMA, PHOT, and VACA.

## 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 www.mccneb.edu/articulation for complete course listings and requirements.
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.

| General studies transfer agreements | Four-year institution |
| :--- | :--- |
| Pre-Criminal Justice (PUCJO) | University of Nebraska <br> at Omaha |
| Pre-Health Related Business (PSHBO) | Clarkson College |
| Pre-Secondary Education | Industrial Technology Endorsement <br> (PSITO) <br> Industrial Technology Endorsement <br> (ITAS1) |
| Wniversity of Nebraska- <br> Lincoln |  |

## General Studies: Certificates of Achievement

Art - Entrepreneurship for the Artist (p. 105)
Bookkeeping (p. 69)
Business Management - Not-for-Profit Management (p. 76)
Civil Engineering - Civil Engineering Technology (p. 39)
Industrial and Commercial Trades - Healthy Homes (p. 55)

- Residential Energy Management (p. 56)

Publication Writing and Design (p. 113)
Video/Audio Communications Arts - Screenwriting (p. 119)
Video/Audio Communications Arts - Sound Recording (p. 119)

## General Studies: Career Certificates

CDL-A Truck Driving (p. 47)
Customer Service Management (p. 77)
Customer Service Representative (p. 143)
Diesel Automotive Parts Sales (p. 48)
Early Childhood Family/Group Specialist (p. 147)
Early Childhood Sign Language (p. 146)
Early Childhood Spanish (p. 146)
Electrical Mechanical Systems (p. 57)
Global Perspectives (p. 113)
Home Energy Professional (Weatherization) (p. 45)
Immigration Laws, Policies, and Procedures (p. 85)
Narrative Structure and Visualization (p. 112)
Not-for-Profit Management (p. 77)
Professional Communication (p. 113)
Professional Skills (p. 144)
Solar Air Systems (p. 45)
Solar Electric Systems (p. 50)
Solar Heating Systems (p. 52)
Solar Hydronics Systems (p. 62)
Solar Technology (p. 45)
Solar Water Systems (p. 60)
Spanish for Business (p. 116)
Spanish for Healthcare (p. 116)

## Health and Public Services

## Who We Are

Health and Public Services is comprised of Criminal Justice, Dental Assisting, Certified Nursing Assistant, Medication Aid, Practical Nursing, Associate Degree Nursing, Medical Assisting, Respiratory Care Technology, Emergency Medical Services, Paramedicine, Fire Science Technology, and Professional Health Studies. We are an inclusive division that focuses on our students and our community. Our programs are offered in all four counties of our service area in a multitude of different delivery systems. Courses are offered online, on campus, at our sites, in high schools, corporations, churches, fire stations, county buildings, and even community events.

## Our Mission Statement

The administration, faculty, and staff of the Health and Public Services area commit ourselves to developing resources, expanding and enhancing learning spaces for students, and focusing on every student's achievement and success. We embrace student-centered services and keep our focus on our students through access to information and ongoing communication. In turn, we understand and support the personal and professional achievements of each employee and will provide faculty and staff developments through conferences, continuing educational opportunities, and team building activities.

## Criminal Justice

In addition to police careers, the Criminal Justice program also leads to the following opportunities:

- 911 dispatcher
- defense attorney
- game warden
- state trooper
- court bailiff
- district attorney
- prison guard
U.S. marshal
- crime lab specialist
- FBI agent
- probation/parole officer
- criminal justice professor
- forest ranger
- secret service


## Degree: Associate in Applied Science

Criminal Justice

- Corrections option
- Law Enforcement option

Online Degree: Associate in Applied Science
Criminal Justice

- Corrections option
- Law Enforcement option


## Criminal Justice (CJAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus, Online
This degree provides practical knowledge of the criminal justice system and operations. Study focuses on local, state, and federal law enforcement, judicial processes, corrections, and homeland security. The degree also explores the criminal justice system's role within society.
Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, probation officer, juvenile detention officer, correctional officer, crime scene investigator, and loss prevention specialist. Individuals considering a degree or employment in a criminal justice profession must be aware of strict employment qualifications. Factors that usually disqualify candidates from employment include a criminal record (e.g., theft, assault, murder), history of drug abuse, significant psychological/personal disorders, physiological disorders, neuromuscular dysfunction, and dishonesty. Criminal justice agencies carefully scrutinize candidates in order to select those who maintain the public's trust and confidence at all times.

## Graduation Requirements

| General education | 27.0 |
| :--- | ---: |
| Major requirements | 40.5 |
| Option requirements | 31.5 |
| Total credit hours required | 99.0 |
| General education requirements (27.0 credit hrs.) |  |
| Communications |  |


| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)

## Social Sciences

$\begin{array}{lll}\text { SOCI 1010 } & \text { Introduction to Sociology } \bullet \text { • } & 4.5 \\ & \text { OR } & \\ \text { PSYC 1010 } & \text { Introduction to Psychology } ७ \text { © } & 4.5\end{array}$
Quantitativelnumeracy skills
Quantitative/numeracy skills
Mathematics
See Quantitative/numeracy skills course options (p. 27)
MATH 1220 Business Math is strongly recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5
Major requirements for Criminal Justice ( 40.5 credit hrs.)
Courses
CRIM $1010 \quad$ Introduction to Criminal Justice - 4.5
CRIM $1020 \quad$ Introduction to Corrections $\mathcal{\bullet} \quad 4.5$
CRIM $1030 \quad$ Courts and the Judicial Process $\sim$ B 4.5
CRIM $1140 \quad$ Reporting Techniques for Criminal Justice-色 4.5
CRIM $2000 \quad$ Criminal Law ${ }^{\text {B }} \quad 4.5$
CRIM $2050 \quad$ Principles of Interviewing and Interrogation 3 B 4.5
CRIM $2150 \quad$ Contemporary Issues in Criminal Justice- - - $\quad 4.5$
CRIM $2260 \quad$ Criminal Investigation $-\nrightarrow 2.5$
CRIM $2310 \quad$ Rules of Evidence $७$ ß $\quad 4.5$

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 13.5 credit hours may be granted upon petition for CRIM 1010, CRIM 2000, and CRIM 2260.

## Option requirements for Criminal Justice (31.5 credit hrs.)

The Criminal Justice degree options are available in the areas listed below. See the following sections for specific additional courses required to satisfy each option.
Students interested in a Criminal Justice option should consult with an advisor or Student Services when planning their studies.
Corrections ( 31.5 credit hrs.)
Criminal Justice - Corrections (CJCNO) (p. 97)
Law Enforcement (31.5 credit hrs.)
Criminal Justice - Law Enforcement (CJLEO) (p. 98)

## Criminal Justice - Corrections (CJCNO)

Award: Associate in applied science
Program location: South Omaha Campus, Online

## Graduation Requirements

General education 27.0
Major requirements 40.5
Option requirements 31.5

Total credit hours required 99.0
General education requirements
See General education requirements for Criminal Justice (p. 97)
Major requirements for Criminal Justice
See Major requirements for Criminal Justice (p. 97)

## Option requirements for Criminal Justice - Corrections ( 31.5 credit hrs.)

Courses
CRIM $2010 \quad$ Introduction to Probation and Parole $\smile \nrightarrow \square$

CRIM 2020 Legal Issues in Corrections $\cup$ © 4.5
CRIM 2120 Community-Based Corrections - B 4.5
CRIM 2220 Correctional Client $-\nrightarrow 3.5$
CRIM $2320 \quad$ Correctional Facilities $\because$ ध 4.5
Elective Courses
Students should select two electives that are not in their option requirements:
CRIM $2030 \quad$ Police and Society ${ }^{*}$ B 4.5

CRIM 2120 Community-Based Corrections $\overbrace{\text { B }} 4.5$
CRIM 2220 Correctional Client-® 4.5
CRIM 2300 Community Relations $-\frac{\text { B }}{} 4.5$
CRIM $2330 \quad$ Introduction to Forensic Crime Scene 4.5
Investigation ${ }^{3}$
CRIM $2400 \quad$ Introduction to Homeland Security ${ }^{\circ}$ - 4.5
CRIM $2430 \quad$ Emergency Response to Terrorism 3.5
CRIM $2500 \quad$ Introduction to Private Security 4.5
CRIM $2900 \quad$ Special Topics in Criminal Justice variable
CRIM 2960 Internship variable

Criminal Justice - Law Enforcement (CJLEO)
Award: Associate in applied science
Program location: South Omaha Campus, Online

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 40.5 |
| Option requirements | 31.5 |

## Total credit hours required

## General education requirements

See General education requirements for Criminal Justice (p. 97)

## Major requirements for Criminal Justice

See Major requirements for Criminal Justice (p. 97)

## Option requirements for Criminal Justice - Law Enforcement ( 31.5 credit hrs.)

## Courses

## CRIM $2030 \quad$ Police and Society $\begin{aligned} \text { ® } & 4.5\end{aligned}$

CRIM $2190 \quad$ Police Field Services $\mathcal{\bullet}$ ( 4.5
CRIM 2300 Community Relations - - 4.5
CRIM $2330 \quad$ Introduction to Forensic Crime Scene 4.5
CRIM $2400 \quad$ Introduction to Homeland Security $\begin{array}{ll}\text { ® } & 4.5\end{array}$

## Elective Courses

Students should select two electives that are not in their option requirements:
CRIM $2030 \quad$ Police and Society ${ }^{\text {® }} 4.5$

CRIM $2120 \quad$ Community-Based Corrections -3.5
CRIM $2220 \quad$ Correctional Client $७$ B 4.5
CRIM 2300 Community Relations ${ }^{\bullet}$ 4.5
CRIM $2330 \quad$ Introduction to Forensic Crime Scene 4.5
CRIM $2400 \quad$ Introduction to Homeland Security- -3.5
CRIM $2430 \quad$ Emergency Response to Terrorism 3.5
CRIM $2500 \quad$ Introduction to Private Security 4.5
CRIM $2900 \quad$ Special Topics in Criminal Justice variable
CRIM 2960 Internship variable

## Fire Science Technology

Degree: Associate in Applied Science
Fire Science Technology

## Fire Science Technology (FSAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree 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 benefit from enrolling in the Fire Science Technology program.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 72.0 |
| Total credit hours required | $\mathbf{9 9 . 0}$ |

## General education requirements ( 27.0 credit hrs.)

## Communications

| ENGL 1220 | Technical Writing ${ }^{\text {® }}$ | 4.5 |
| :---: | :---: | :---: |
| ENGL 1240 | Oral and Written Reports $\checkmark^{*}$ | 4.5 |
| SPCH 1110 | Public Speaking © | 4.5 |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }_{\text {© }}$ | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1240 | Applied Mathematics | 4.5 |
| Major requirements for Fire Science Technology (72.0 credit hrs.) |  |  |

## Courses

FIST $1000 \quad$ Principles of Emergency Services 3.0
FIST $1020 \quad$ Fire Behavior and Combustion 4.0
FIST $1030 \quad 3.0$
FIST $1040 \quad$ Principles of Property and Casualty 3.0
Insurance ${ }^{-1}$
$\begin{array}{lll}\text { FIST } 1050 & \text { Building Construction for Fire Protection } & 3.0 \\ \text { FIST } 1060 & \text { Occupational Safety and Health for } & 3.0\end{array}$
Emergency Services
FIST $1070 \quad$ Fire Protection Systems $\begin{array}{ll}\text { B } & 3.0\end{array}$
FIST $1080 \quad$ Fire Protection Hydraulics and Water Supply 4.0
FIST $1090 \quad$ Firefighter I 10.0
FIST 2000 Incident Command System 3.0
FIST $2010 \quad$ Fire Investigation I 3.0
FIST $2011 \quad$ Fire Investigation II 3.0
FIST $2020 \quad$ Fire Prevention, Inspection and Codes $\begin{aligned} & \text { ® }\end{aligned} 4.0$
FIST $2030 \quad$ Legal Aspects of Emergency Services 3.0
FIST $2040 \quad$ Principles of Fire \& Emergency Services 3.0
Principles of Fire \& Emergency Services
Safety \& Survival
Safety \& Survival
Introduction to Fire and Emergency Services 3.0
Administration-B
Strategy and Tactics 4.0
Hazardous Materials Operations 3.5
Firefighter II 5.5
Heartsaver First Aid with CPR and AED 1.0
EMSP 1010
Health
The area of health careers at MCC offers an array of programs from associate degrees in Nursing, Professional Health Studies and Respiratory Therapy to certificates of achievement in Dental Assisting, Medical Assisting, Practical Nursing, and Paramedicine. Students participate in a variety of healthcare settings throughout the community during their education program, which prepares them for the professional setting after graduation. All of the health careers programs lead to eligibility to write for licensure in the chosen profession, a necessary component to becoming a member of a healthcare team.
Degree: Associate in Applied Science
Respiratory Care Technology
Certificate of Achievement
Dental Assisting
Paramedicine
Medical Assisting

## Respiratory Care Technology (RTAAS)

Award: Associate in applied science degree
Program location: South Omaha Campus
Utilizing sophisticated biomedical equipment, respiratory therapists provide diagnostic testing, treatment, and preventive care to patients with cardiopulmonary disorders under the direct or indirect supervision of a physician. Upon completion of this degree, students are 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 | $131.0-132.0$ |

This program has special admission requirements. Contact Student Services or the Respiratory Care program director for more information and to obtain a current admission information packet, or visit www.mccneb.edu/healthcareers.

## General education requirements ( 33.0 credit hrs.)

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

## Communications

| ENGL 1010 | English Composition Ife | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition Iİ | 4. |
| Social sciences |  |  |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {® }}$ © | 4.5 |

Quantitative/numeracy skills

| Natural sciences |  |  |
| :--- | :--- | :--- |
| BIOS 2150 | Microbiology | 6.0 |

BIOS 2150L Microbiology Lab 0.0

BIOS 2150: Additional prerequisite(s) may be required.
Other
HMRL $1010 \quad$ Human Relations Skills $\bigcirc$ © 4.5
INFO 1001 Information Systems and Literacy ${ }^{-}$• 4.5

## Major requirements for Respiratory Care Technology (76.5 credit hrs.)

Courses
RESP $1000 \quad$ Orientation to Respiratory Care 3.0
RESP $1010 \quad$ Introduction to Respiratory Care 4.5
RESP $1020 \quad$ Cardiopulmonary Anatomy and Physiology 4.5
RESP $1030 \quad$ Respiratory Care Procedures I 4.5
RESP $1031 \quad$ Current Concepts I 2.0
RESP $1040 \quad$ Respiratory Care Procedures II 4.5
RESP $1041 \quad$ Current Concepts II 2.0
RESP $1042 \quad$ Pharmacology for Respiratory Care 3.0
RESP $1991 \quad$ Clinical Practicum I 5.5
RESP $1992 \quad$ Clinical Practicum II 5.5
RESP 1993 Clinical Practicum III 5.5
RESP $2100 \quad$ Advanced Respiratory Care 4.5
RESP $2101 \quad$ Current Concepts III 2.0
RESP 2120 Cardiology and Hemodynamics 3.0
RESP $2121 \quad$ Current Concepts IV 2.0
RESP $2122 \quad$ Pediatric and Neonatal Respiratory Care 3.0
RESP $2131 \quad$ Current Concepts V 2.0
RESP $2132 \quad$ Respiratory Care Seminar 4.5
RESP $2994 \quad$ Clinical Practicum IV 5.5
RESP 2995 Clinical Practicum V 5.5

## Other requirements for Respiratory Care Technology (21.5-22.5 credit hrs.)

Courses
BIOS 1010 Introduction to Biology © © 6.0
BIOS 1010L Introduction to Biology Lab 0.0

BIOS $2310 \quad$ Human Anatomy and Physiology I 6.0
BIOS 2310L Human Anatomy and Physiology I Lab 0.0
BIOS $1310 \quad$ Survey of Human Anatomy and Physiology 5.0

| BIOS 1310L | Survey of Human Anatomy and Physiology <br> Lab | 0.0 |
| :--- | :--- | :--- |
| OIOS 2320 | OR |  |
|  | Human Anatomy and Physiology II <br> and | 6.0 |
| BIOS 2320L | Human Anatomy and Physiology II Lab | 0.0 |
| CHEM 1010 | College Chemistry | 6.0 |
| CHEM 1010L | College Chemistry Lab | 0.0 |
| PHYS 1010 | Applied Physics | 4.5 |
| PHYS 1010L | Applied Physics Lab | 0.0 |

## Suggested Curriculum Plan

Below is a suggested guide for students planning careers as respiratory therapists after two years of full-time study.

## First Year

First quarter (Summer)

| BIOS 1010 | Introduction to Biology <br> and | 6.0 |
| :--- | :--- | :--- |
| BIOS 1010L | Introduction to Biology Lab <br> OR | 0.0 |
| BIOS 2310 | Human Anatomy and Physiology I <br> and | 6.0 |
| BIOS 2310L | Human Anatomy and Physiology I Lab | 0.0 |
| CHEM 1010 | College Chemistry | 6.0 |
| CHEM 1010 | College Chemistry Lab | 0.0 |
| MATH 1310 | Intermediate Algebraß | 4.5 |

Second quarter (Fall)
BIOS $1310 \quad 5.0$
and
BIOS 1310L Survey of Human Anatomy and Physiology 0.0
Lab
OR
BIOS $2320 \quad$ Human Anatomy and Physiology II 6.0
BIOS 2320L Human Anatomy and Physiology II Lab 0.0
ENGL 1010 English Composition Iß © 4.5
PHYS $1010 \quad$ Applied Physics 4.5
PHYS 1010L Applied Physics Lab 0.0
RESP $1000 \quad$ Orientation to Respiratory Care 3.0
Third quarter (Winter)
INFO 1001 Information Systems and Literacy © 4.5
PSYC 1010 Introduction to Psychology ${ }^{\text {® }}$ © 4.5
RESP $1010 \quad$ Introduction to Respiratory Care 4.5
RESP $1020 \quad$ Cardiopulmonary Anatomy and Physiology 4.5
Fourth quarter (Spring)
BIOS $2150 \quad$ Microbiology 6.0

BIOS 2150L Microbiology Lab 0.0
RESP 1030 Respiratory Care Procedures I 4.5
RESP $1031 \quad$ Current Concepts I 2.0
RESP 1991 Clinical Practicum I 5.5
Second Year
Fifth quarter (Summer)
RESP 1040 Respiratory Care Procedures II 4.5

RESP $1041 \quad$ Current Concepts II 2.0
RESP $1042 \quad$ Pharmacology for Respiratory Care $\quad 3.0$
RESP $1992 \quad$ Clinical Practicum II 5.5
Sixth quarter (Fall)
HMRL $1010 \quad$ Human Relations Skills • © 4.5
RESP $1993 \quad$ Clinical Practicum III 5.5
RESP $2100 \quad$ Advanced Respiratory Care 4.5
RESP 2101 Current Concepts III 2.0
Seventh quarter (Winter)
RESP $2120 \quad$ Cardiology and Hemodynamics 3.0
RESP 2121 Current Concepts IV 2.0
RESP $2122 \quad$ Pediatric and Neonatal Respiratory Care 3.0
RESP 2994 Clinical Practicum IV 5.5

| Eighth quarter (Spring) |  |  |
| :--- | :--- | :--- |
| ENGL 1020 | English Composition IIఆ৫ | 4.5 |
| RESP 2131 | Current Concepts V | 2.0 |
| RESP 2132 | Respiratory Care Seminar | 4.5 |
| RESP 2995 | Clinical Practicum V | 5.5 |

## Dental Assisting (DEACE)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate teaches basic knowledge of all facets of dental assisting and develops 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.
This program has special admission requirements. Contact Student Services for more information and to obtain a current admission information packet.

## Graduation Requirements

General education 13.5
Major requirements
68.0

Total credit hours required 81.5
General education requirements ( 13.5 credit hrs.)
Communications
ENGL 1210 Applied Communications 4.5

Social sciences
Select one course from the following:
$\begin{array}{ll}\text { PSYC } 1000 & \text { Psychology for Everyday Living }\end{array}$
PSYC $1010 \quad$ Introduction to Psychology $७$ © 4.5
Quantitative/numeracy skills
Select one course from the following:
Any 1000-level of Mathematics 4.5
MATH $1240 \quad$ Applied Mathematics 4.5
MATH $1310 \quad$ Intermediate Algebraß 3.5
MATH 1310 or higher should be taken by students seeking the Professional Health Studies option or by students who want a transfer math course.

Major requirements for Dental Assisting ( 68.0 credit hrs.)
Courses
DENT 1000
DENT 1020
DNT 1102
DENT 1120
DENT 1140
DENT 1160
DENT 1180
DENT 1200
DENT 1230
DENT 1240
DENT 1260
DENT 1280
DENT 1310
DENT 1320
DENT 1350
DENT 1360
DENT 1370
DENT 1991
DENT 1992
DENT 1993
EMSP 1000

Introduction to Dental Assisting 2.0
Dental Pathology and Microbiology 2.5
Dental Pharmacology 2.0
Nutrition and Preventive Dentistry2.03.0

Infection Control 3.0
Dental Radiology I 2.5
Dental Radiology II

- 4.0

Chairside Assisting I 4.0
Chairside Assisting II 4.0
Chairside Assisting III 4.0
Clinical Experience I 2.5
Clinical Experience II 8.0
Clinical Seminar 2.0
Cardiopulmonary Resuscitation for
Healthcare Providers

## Curriculum Plan

Below is the required sequence of courses for students planning careers in dental assisting, a one year program of full-time study. Students must pass all courses in the quarter with at least a C or the student is not allowed to continue in the program.

| First Year |  |  |
| :--- | :--- | :--- |
| First quarter (Fall) |  |  |
| DENT 1000 | Introduction to Dental Assisting | 2.0 |
| DENT 1100 | Dental Anatomy | 4.0 |
| DENT 1120 | Related Anatomy | 2.5 |
| DENT 1140 | Dental Pathology and Microbiology | 2.5 |
| DENT 1260 | Infection Control | 3.0 |
| DENT 1280 | Dental Office Emergencies | 2.5 |
| DENT 1350 | Chairside Assisting I | 4.0 |
| EMSP 1000 | Cardiopulmonary Resuscitation for | 1.0 |
|  | Healthcare Providers |  |
| Second quarter (Winter) | 3.0 |  |
| DENT 1180 | Nutrition and Preventive Dentistry | 5.5 |
| DENT 1200 | Dental Materials | 4.0 |
| DENT 1230 | Dental Specialties I | 2.5 |
| DENT 1310 | Dental Radiology I | 4.0 |
| DENT 1360 | Chairside Assisting II |  |
| Third quarter (Spring) | 2.0 |  |
| DENT 1160 | Dental Pharmacology | 2.0 |
| DENT 1240 | Dental Specialties II | 4.0 |
| DENT 1320 | Dental Radiology II | 4.0 |
| DENT 1370 | Chairside Assisting III | 2.5 |
| DENT 1991 | Clinical Experience I | 4.5 |
| ENGL 1210 | Applied Communications | 4.5 |
|  | Mathematics |  |
| Fourth quarter (Summer) | 3.0 |  |
| DENT 1020 | Dental Office Procedures | 8.0 |
| DENT 1992 | Clinical Experience II | 2.0 |
| DENT 1993 | Clinical Seminar | 4.5 |
|  | Social sciences |  |

The dental assisting curriculum is accredited by the Commission on Dental Accreditation for the American Dental Association.

Students who successfully complete the Dental Assisting program can earn the Professional Health Studies degree by fulfilling the additional 24.0 credit hours in general education requirements.

## Paramedicine (PMPMC)

Award: Certificate of achievement
Program Location: Fort Omaha Campus, South Omaha Campus
This certificate of achievement allows students after successful completion to sit for the National Registry exam. Once certified, students can apply for state licensure. Upon becoming licensed, students can function as advanced providers in a fire department, with a transport service, or in a hospital emergency room.

## Graduation Requirements

General education 13.5
Major requirements 81.0
Total credit hours required 94.5
General education requirements ( 13.5 credit hrs.) Communications
ENGL $1010 \quad$ English Composition IB © 4.5

Humanities/social sciences
Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
MATH 1310 Intermediate Algebra $\checkmark$ B
4.5

| Major requirements for Paramedicine (81.0 credit hrs.) |  |  |
| :---: | :---: | :---: |
| Courses |  |  |
| EMSP 1000 | Cardiopulmonary Resuscitation for Healthcare Providers | 1.0 |
| EMSP 1100 | Emergency Medical Technician | 12.0 |
| EMSP 1120 | Paramedic Part 1 of 4 | 12.0 |
| EMSP 1122 | Paramedic Part 2 of 4 | 12.0 |
| EMSP 1123 | Paramedic Clinical/Field Component Part 1 of 3 | 3.5 |
| EMSP 1124 | Paramedic Part 3 of 4 | 12.0 |
| EMSP 1125 | Paramedic Clinical/Field Part 2 of 3 | 3.5 |
| EMSP 1126 | Paramedic Part 4 of 4 | 12.0 |
| EMSP 1127 | Paramedic Clinical/Field Part 3 of 3 | 3.5 |

Students who successfully complete the Paramedicine program can earn the Professional Health Studies degree by fuffiling the additional 19.5 credit hours in general education requirements.

## Medical Assisting (MDACE)

Award: Certificate of achievement

## Program location: South Omaha Campus

One of the fastest growing healthcare occupations today is the medical assistant. Medical Assisting is a one-year certificate of achievement designed to give students the knowledge and skills to provide administrative and clinical support to healthcare employers, including hospitals, nursing and residential care facilities, and physicians' offices.
This program has special admission requirements. Contact Student Services for more information and to obtain a current admission information packet.

## Graduation Requirements <br> General education 13.5 <br> Additional requirements 6.0 <br> Major requirements 70.0 <br> Total credit hours required 89.5

General education requirements ( 13.5 credit hrs.)
Communication
Select one course from the following:
$\begin{array}{ll}\text { ENGL } 1010 & \text { English Composition I- } \quad\end{array}$
ENGL 1210 Applied Communications 4.5
ENGL 1010 should be taken by students seeking the Professional Health Studies option.

## Social sciences

PSYC $1120 \quad$ Human Growth and Development ${ }^{\circ}$ ? 4.5
Quantitative/numeracy skills
Select one course from the following:
MATH $1240 \quad$ Applied Mathematics

| MATH 1310 | Intermediate Algebra $\sim$ Э | 4.5 |
| :---: | :---: | :---: |

MATH 1240 does not count toward nursing admission or Professional Health Studies degree.
Take MATH 1310 or higher level MATH course.
Additional requirements ( 6.0 credit hrs.)
Courses
BIOS $1310 \quad$ Survey of Human Anatomy and Physiology 5.0
BIOS 1310L Survey of Human Anatomy and Physiology 0.0
EMSP $1000 \quad$ Cardiopulmonary Resuscitation for 1.0

Major requirements for Medical Assisting (70.0 credit hrs.)

## Courses

HIMS 1150
Introduction to Medical Law and Ethics-ß -
MDST 1010 Clinical Procedures I 6.0

| MDST 1020 | Administrative Procedures I | 4.5 |
| :--- | :--- | ---: |
| MDST 1030 | Medical Disorders | 3.5 |
| MDST 1040 | Clinical Terminology I | 4.5 |
| MDST 1050 | Clinical Terminology II | 4.5 |
| MDST 2010 | Clinical Procedures II | 6.0 |
| MDST 2020 | Administrative Procedures II | 4.5 |
| MDST 2030 | Laboratory Techniques | 3.5 |
| MDST 2110 | Pharmacology for Medical Assistants and | 4.5 |
| MDST 2120 | Allied Health Professionals I |  |
|  | Pharmacology for Medical Assistants and | 4.5 |
| MDST 2980 | Allied Health Professionals II | 18.5 |

The Medical Assisting program is accredited by the Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756, 727-210-2350.
Students who successfully complete the Medical Assisting program can earn the Professional Health Studies degree by fulfilling the additional 13.5 credit hours in general education requirements.

## Professional Health Studies

Degree: Associate in Applied Science
Professional Health Studies

- Dental Assisting
- Paramedicine
- General Health Studies
- Medical Assisting


## 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 and public services. This degree provides students with the flexibility to create career tracks and options based on their personal and professional goals. The degree focuses on career areas as well as general education and presents students with an associate degree, which allows some latitude in selection of courses in the various health and public services areas. Students should work with an advisor or counselor in planning the completion of this degree.
Responsibilities vary depending on the professional setting, location, and discipline. Graduates work side-by-side with skilled practitioners and career professionals and are an integral part of the healthcare and public service team, providing excellent healthcare and service while making a difference in the lives of the patients and community members they serve.

## Graduation Requirements

| General education | $33.0^{*}$ |
| :--- | :--- |
| Major requirements | 36.0 |
| Option requirements | $13.5-27.0$ |
| Total credit hours required | $\mathbf{9 6 . 0 - 1 1 4 . 5}$ |

*Some general education requirements may have been previously met in the certificate program.

## General education requirements ( 33.0 credit hrs.)

## Communications

| ENGL 1010 | English Composition IV® | 4.5 |
| :--- | :---: | :---: |
| ENGL 1020 | English Composition IIß $\bullet$ | 4.5 |
| Social sciences/natural science |  |  |
|  | Natural science elective | 6.0 |
|  | Social sciences | 4.5 |

See Social sciences course options (p. 25)
Quantitative/numeracy skills
MATH 1310 Intermediate Algebra 3
4.5

Other
HMRL $1010 \quad$ Human Relations Skills- - © 4.5
INFO 1001 Information Systems and Literacy 4.5

## Major requirements for Professional Health Studies ( 36.0 credit hrs.)

Some major requirements may have been previously met in the certificate program.

## Courses

Complete a minimum of 36.0 course credit hours from a maximum of two prefixes related to health fields. Select from these prefixes: HLTH, HIMS, DENT, NURS, BIOS, SCIE, CHEM, PHYS, MDST, EMSP, and FIST. The following example demonstrates a possible combination.
HIMS $1111 \quad$ Healthcare Careers $\bullet \bullet \quad 4.5$
HIMS $1120 \quad$ Medical Terminology I © 4.5
HIMS $1130 \quad$ Medical Terminology IIß © 4.5
HIMS 1150 Introduction to Medical Law and Ethics $\smile$ © 4.5
HIMS 1180 Disease Processes © 4.5
HLTH $1050 \quad$ Nutrition in the Life Cycle^A 4.5
HLTH $1200 \quad$ Long-Term Care - CNA 6.5
HLTH $1300 \quad$ Medication Aide 5.0

## Option requirements for Professional Health Studies tracks (13.5-27.0 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. Note that not all courses in the degree options may transfer.

## Dental Assisting (24.0 credit hrs.)

Professional Health Studies - Dental Assisting (PHSDO) (p. 102)
Paramedicine (19.5 credit hrs.)
Professional Health Studies - Paramedicine (PHPMO) (p. 102)
General Health Studies ( 27.0 credit hrs.)
Professional Health Studies - General Health Studies (PHSGO) (p. 102)
Medical Assisting ( 13.5 credit hrs.)
Professional Health Studies - Medical Assisting (PHSMO) (p. 103)
Some general education and major courses have been previously met in the certificate programs; refer to the following pages for additional requirements. Note that not all courses in the degree options may transfer.

## Professional Health Studies - Dental Assisting (PHSDO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus
This option allows students to increase the number of opportunities available to them in achieving their personal and professional goals. Students have the opportunity to work toward teaching in a dental assisting program. Students should work with an advisor or counselor in planning the completion of this degree option.

## Graduation Requirements

Completed certificate
81.5

General education 24.0

Total credit hours required 105.5

## General education requirements

See General education requirements for Professional Health Studies (p. 101)
Option requirements for Dental Assisting track (24.0 credit hrs.)

Students who successfully complete the Dental Assisting certificate (p. 100) can earn the Professional Health Studies degree by fulfilling the additional 24.0 general education requirements. Note that not all courses in the degree may transfer.

## Professional Health Studies - Paramedicine (PHPMO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus
This option allows graduates to transfer to a four-year program in health or medical sciences. Graduates often find an expanded job market available to them as some employers require an associate degree as the minimum for hire.
Graduation Requirements
Completed certificate 94.5
General education 19.5
Total credit hours required 114.0

## General education requirements

See General education requirements for Professional Health Studies (p. 101)
Additional requirements for Paramedicine track (19.5 credit hrs.)
Students who successfully complete the Paramedicine certificate of achievement (p.100) can earn the Professional Health Studies degree by fulfilling the additional 19.5 general education requirements. Note that not all courses in the degree may transfer.

## Professional Health Studies - General Health Studies (PHSGO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus
This option provides students who plan to make application to a four-year institution in the areas of health, emergency services, public service, and medical sciences the opportunity to customize their coursework to meet prerequisites for these programs.

## Graduation Requirements

General education 33.0
Major requirements 36.0
Option requirements 27.0
Total credit hours required 96.0

## General education requirements

See General education requirements for Professional Health Studies (p. 101)
Major requirements for Professional Health Studies
See Major requirements for Professional Health Studies (p.102)

## Option requirements for General Health Studies track ( 27.0 credit hrs.)

Select 27.0 credit hours from any of the following health-related prefixes: HLTH, HIMS, DENT, NURS, BIOS, SCIE, CHEM, PHYS, MDST, EMSP, and FIST. Note that not all courses in the degree may transfer.

## Professional Health Studies - Medical Assisting (PHSMO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This option allows expansion of graduates' roles in medical assisting to include supervisory, leadership, and managerial roles and positions. It provides the opportunity and a pathway for lifelong learning as well as to pursue advanced degrees and grow professionally in a variety of healthcare careers.

## Graduation Requirements

Completed certificate 89.5
General education 19.5
Total credit hours required 109.0

## General education requirements

See General education requirements for Professional Health Studies (p. 101)

## Option requirements for Medical Assisting track (13.5 credit hrs.)

Students who successfully complete the Medical Assisting certificate (p. 101) can earn the Professional Health Studies degree by fulfilling the additional 13.5 general education requirements. Note that not all courses in the degree may transfer.

## Nursing

Employment in a nursing healthcare career is a caring and compassionate opportunity to serve in a variety of settings throughout our community. We offer various options to fit your goals.
Degree: Associate in Science
Nursing
Certificate of Achievement
Nursing - Practical

## Nursing - Associate Degree (ASNAS)

Award: Associate in science in nursing
Program location: South Omaha Campus
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 selects from a variety of therapeutic nursing interventions to provide care for clients. Graduates of this program are 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 Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404-9755000.

## Graduation Requirements

General education 51.0
1st year (LPN) major requirements 35.0
2nd year (RN) major requirements 22.0
Total credit hours required
MCC's nursing programs have special admissions requirements. Contact Student Services for more information and to obtain a current healthcare admission information packet.

## General education requirements ( 51.0 credit hrs.)

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

## Communications

ENGL $1010 \quad$ English Composition I® 4.5

ENGL $1020 \quad$ English Composition IIఆ 『 4.5

| Social sciences |  |  |
| :---: | :---: | :---: |
| PSYC 1120 | Human Growth and Development $\mathcal{\ddots}$ | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1310 | Intermediate Algebra* | 4.5 |
| Natural sciences |  |  |
| BIOS 2150 | Microbiology | 6.0 |
| BIOS 2150L | Microbiology Lab | 0.0 |
| BIOS 2310 | Human Anatomy and Physiology I | 6.0 |
| BIOS 2310L | Human Anatomy and Physiology I Lab | 0.0 |
| BIOS 2320 | Human Anatomy and Physiology II | 6.0 |
| BIOS 2320L | Human Anatomy and Physiology II Lab | 0.0 |
| CHEM 1010 | College Chemistry- | 6.0 |
| CHEM 1010L | College Chemistry Lab | 0.0 |
| BIOS 2150, BIOS 2310: Additional prerequisite(s) may be required. |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\bigcirc$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {© }}$ | 4.5 |

## Major requirements for Nursing - Associate Degree ( 57.0 credit hrs.)

(35.0 credit hours are earned during first-year LPN.)

## Courses

NURS 2140 Adult Nursing IV 5.0
NURS $2150 \quad$ Adult Nursing V 5.0
NURS $2210 \quad$ Professional Role of the Nurse II 1.0
NURS $2310 \quad$ Mental Health Nursing II 5.0
NURS $2410 \quad$ Family Nursing II 5.0
NURS $2520 \quad$ Concepts of Health Assessment and 1.0
Therapeutic Interventions II
See Nursing Suggested Curriculum Plan (p. 104)

## Nursing - Practical (LPNCE)

Award: Certificate of achievement
Program location: South 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. Graduates of this program are 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 19.5
Additional requirements 12.0
Major requirements 35.0
Total credit hours required 66.5
MCC's nursing programs have special admission requirements. Contact Student Services for more information and to obtain a current healthcare admission information packet.

## General education requirements (19.5 credit hrs.)

Communications
ENGL $1010 \quad$ English Composition I- ${ }^{\circ}$ • 4.5
Quantitative/numeracy skills
MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B 4.5
Social sciences
PSYC 1120
Human Growth and Development 4.5
Natural sciences
CHEM 1010
College Chemistry ${ }^{\wedge}$
6.0

CHEM 1010L
0.0

## Additional requirements ( 12.0 credit hrs.)

| Courses |  |  |
| :--- | :--- | :--- |
| BIOS 2310 | Human Anatomy and Physiology I | 6.0 |
| BIOS 2310L | Human Anatomy and Physiology I Lab | 0.0 |
| BIOS 2320 | Human Anatomy and Physiology II | 6.0 |
| BIOS 2320L | Human Anatomy and Physiology II Lab | 0.0 |

BIOS 2310: Additional prerequisite(s) may be required.
Major requirements for Nursing - Practical ( 35.0 credit hrs.)
Courses
NURS $1110 \quad$ Adult Nursing I 6.0
NURS $1120 \quad$ Adult Nursing II 8.0
NURS $1130 \quad$ Adult Nursing III 8.5
NURS $1200 \quad$ Professional Role of the Nurse I 1.0
NURS 1300 Mental Health Nursing I 1.0
NURS $1400 \quad$ Family Nursing I 3.0
NURS $1510 \quad$ Concepts of Health Assessment and 3.5
Therapeutic Interventions I
Pharmacology
NURS $1950 \quad$ Pharmacology
See Nursing Suggested Curriculum Plan (p. 104)

## Nursing Suggested Curriculum Plan

## Practical Nursing Program

First year
NOTE: Applicants accepted to MCC's Practical Nursing program must complete Cardiopulmonary Resuscitation (EMSP 1000 - CPR) prior to orientation.

## Prerequisites

(must be completed prior to the application deadline)
CHEM $1010 \quad$ College Chemistry
ENGL $1010 \quad$ English Composition I- © $\quad 4.5$
MATH $1310 \quad$ Intermediate Algebra $\because 3.5$
PSYC $1120 \quad$ Human Growth and Development- 3.5
First quarter
BIOS 2310
BIOS 2310L
Human Anatomy and Physiology I 6.0
Human Anatomy and Physiology I Lab 0.0
NURS $1110 \quad$ Adult Nursing I 6.0
NURS $1200 \quad$ Professional Role of the Nurse I 1.0
NURS $1300 \quad$ Mental Health Nursing I 1.0
NURS $1510 \quad$ Concepts of Health Assessment and 3.5
Second quarter
BIOS $2320 \quad$ Human Anatomy and Physiology II 6.0
BIOS 2320L Human Anatomy and Physiology II Lab 0.0
NURS $1120 \quad$ Adult Nursing II 8.0
NURS $1950 \quad$ Pharmacology 4.0
Third quarter
NURS $1130 \quad$ Adult Nursing III 8.5
NURS $1400 \quad$ Family Nursing I 3.0

## Associate Degree Nursing Program

Second Year
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 Microbiology 6.0

BIOS 2150L Microbiology Lab $\quad 0.0$
INFO 1001 Information Systems and Literacy © 4.5
Fifth quarter
ENGL 1020
English Composition II•• 4.5
NURS $2410 \quad$ Family Nursing II 5.0
NURS $2520 \quad$ Concepts of Health Assessment and $\quad 1.0$

## Sixth quarter

| NURS 2140 | Adult Nursing IV | 5.0 |
| :--- | :--- | :--- |
| NURS 2310 | Mental Health Nursing II | 5.0 |
| Seventh quarter |  |  |
| HMRL 1010 | Human Relations Skills? $\smile$ | 4.5 |
| NURS 2150 | Adult Nursing V | 5.0 |
| NURS 2210 | Professional Role of the Nurse II | 1.0 |

## Humanities and Visual Arts

## Who We Are

The Humanities and Visual Arts academic area provides general education core competency in a variety of liberal arts disciplines. Additionally, we provide career education in the visual and performing arts including arts entrepreneurship; design, interactivity and media arts; interior design; photography; video/audio communication arts; and theatre.

## Our Mission Statement

To facilitate general education transfer in the humanities and fine arts and address core competencies that enhance the employability of students in any career field. Core competencies include:

- Creativity
- Problem solving
- Critical thinking and analysis
- Communication
- Multi-cultural awareness
- Innovation
- Integration of technology


## Transfer Degree Options

Liberal Arts/Academic Transfer - Language Studies (LTLAA) (p. 153)

## Art

Art is a visual arts discipline in which traditional media is used in the creation of two and three dimensional artwork such as drawing, painting, sculpture, printmaking, ceramics, and jewelry.

## Degree: Associate in Arts

Art
Certificate of Achievement:
Art - Entrepreneurship for the Artist

## 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 as well as electronic technologies. This degree prepares students to enter a four-year fine arts program and currently articulates with the University of Nebraska at Omaha College of Communication, Fine Arts, and Media.

## Graduation Requirements

General education
31.5

Major requirements 67.5
Total credit hours required 99.0

## General education requirements ( 31.5 credit hrs.)

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

## Communications

ENGL $1010 \quad$ English Composition I•® 4.5

ENGL $1020 \quad$ English Composition II円 $๑ \quad 4.5$
SPCH $1110 \quad$ Public Speaking $\bigcirc$ © 4.5
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 151)
ARTS 1000 is recommended.
Quantitative/numeracy skills
MATH $1310 \quad$ Intermediate Algebraß 4.5
Other
HMRL $1010 \quad$ Human Relations Skills $\bullet$ © 4.5
INFO 1001 Information Systems and Literacy © © 4.5
Major requirements for Art ( 67.5 credit hrs.)
Courses
ARTS $1010 \quad$ Elementary Drawing 4.5
ARTS 1020 2-D Design 4.5
ARTS 1030 3-D Design 4.5
ARTS $1040 \quad$ New Media Design 4.5
ARTS 1110 Art History-Ancient to Gothic $\quad$ • 4.5
ARTS $1120 \quad$ Art History-Renaissance to Modern $\because$ B 4.5
ARTS 2010 Life Drawing 4.5
ARTS $2020 \quad$ Elementary Painting 4.5
ARTS $2030 \quad$ Elementary Sculpture 4.5
ARTS $2040 \quad$ Elementary Printmaking 4.5
DIMA $1110 \quad$ Digital Design: Raster 4.5
OR
Digital Design: Vector
Select 18.0 credit hours from the following:
ARTS $1050 \quad$ Creative Careers 4.5
ARTS 2025 Watercolor 4.5
ARTS $2050 \quad$ Elementary Ceramics 4.5
ARTS $2060 \quad$ Elementary Jewelry 4.5
ARTS $2120 \quad$ Intermediate Painting 4.5
ARTS $2130 \quad$ Intermediate Sculpture 4.5
ARTS $2140 \quad$ Intermediate Printmaking 4.5
Intermediate Ceramics 4.5
ARTS $2160 \quad$ Intermediate Jewelry 4.5
ARTS $2220 \quad$ Art Gallery Management 4.5
ARTS $2560 \quad$ Portfolio Development and Professional 4.5
ARTS $2900 \quad$ Special Topics in Art variable
ARTS 2981 Internship variable
BSAD $1250 \quad$ Introduction to Not-for-Profit Management 4.5
DIMA Course of choice
PHOT Course of choice
Students may select multiple DIMA or PHOT courses if so desired.
ARTS 2050, ARTS 2150: These courses are at Omaha Clay Works.

## Curriculum Plan

Below is a suggested guide for students planning to transfer to four-year institutions after two years of full-time study.

## First Year

First quarter (Fall)
ARTS 1010
Elementary Drawing
OR
ARTS 1020
ARTS 1110
ENGL 1010
INFO 1001


## Major requirements for Art - Entrepreneurship for the Artist ( 36.0 credit hrs.)

Students should work with faculty to select courses from the lower list that meet their career goals.

## Courses

ARTS $1050 \quad$ Creative Careers 4.5
ARTS $2220 \quad$ Art Gallery Management 4.5
ARTS $2560 \quad$ Portfolio Development and Professional 4.5
ARTS 2981 Internship variable
ENTR 1050 Introduction to Entrepreneurship © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study ${ }^{\text {® }} 4.5$
ENTR $2090 \quad 4.5$

Select 4.5 credit hours from the following:
ARTS 2900 Special Topics in Art variable
BSAD $1250 \quad$ Introduction to Not-for-Profit Management 4.5
DIMA $1110 \quad$ Digital Design: Raster 4.5
DIMA $1120 \quad$ Digital Design: Vector 4.5
ENTR $2050 \quad$ Marketing for the Entrepreneur* 3.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneur- 3
ENTR $2070 \quad$ Financial Topics for the Entrepreneur $\begin{aligned} & 4.5\end{aligned}$
PHOT $1005 \quad$ Basic Photography I - Digital 6.0

## Design, Interactivity, and Media Arts

The Design, Interactivity, and Media Arts program provides a creative environment where students develop their visual problem-solving skills through the study of media, theory, and practices. The curriculum emphasizes a visual and conceptual approach to image construction and manipulation on the computer through a foundation of courses that include art, computer graphics, and typography. This core provides a basis for choosing an area of concentration for further study.
Degree: Associate in Applied Science
Design, Interactivity, and Media Arts

```
2-D Animation
3-D Animation and Games
Graphic Design
Illustration
Media Generalist
Motion Graphics
Web Design
DIMA Entrepreneur
```


## Certificate of Achievement:

Design and Interactive Media Arts Entrepreneurship
Design, Interactivity, and Media Arts - Web Multimedia Production

## Career Certificate:

Design, Interactivity, and Media Arts - Narrative Structure and Visualization Design, Interactivity, and Media Arts - Web Multimedia Production

## Design, Interactivity, and Media Arts (DIMAS)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
The Design, Interactivity, and Media Arts program provides a creative environment where students develop their visual problem-solving skills through the study of media, theory, and practices. The curriculum emphasizes a visual and conceptual approach to image construction and manipulation on the computer through a foundation of courses that include art, computer graphics, and typography. This core provides a basis for choosing an area of concentration for further study.
The program awards a customizable associate in applied science degree. Students may tailor their degree to emphasize 3-D animation and games, 2-D animation, interactive media and web design, motion graphics, or graphic design. Students may also follow a generalist path by choosing a variety of courses and media.

| Graduation Requirements |  |
| :--- | :---: |
| General education | 27.0 |
| Major requirements | 27.0 |
| Concentration requirements | $49.5-54.0$ |
| Total credit hours required | $103.5-108.0$ |

General education requirements ( 27.0 credit hrs.)
Communications

| ENGL 1010 | English Composition IB © | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition IIP |  |



## Tier I - Major requirements for Design, Interactivity, and Media Arts (27.0 credit hrs.) <br> Courses

Tier I - Students must take all courses

| ARTS 1010 | Elementary Drawing | 4.5 |
| :--- | :--- | :--- |
| ARTS 1020 | 2-D Design | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 |
| DIMA 1120 | Digital Design: Vector | 4.5 |
| DIMA 1310 | Typography I | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |

## Tier II and Tier III-Concentration Requirements for Design, Interactivity, and Media Arts (49.5-54.0 credit hrs.)

2-D Animation (54.0 credit hrs.)
Design, Interactivity, and Media Arts - 2-D Animation (DI2DO) (p. 106)
3-D Animation and Games ( 54.0 credit hrs.)
Design, Interactivity, and Media Arts - 3-D Animation and Games (DI3DO) (p.
107)

Graphic Design (54.0 credit hrs.)
Design, Interactivity, and Media Arts - Graphic Design (DIGDO) (p. 108)
Illustration (54.0 credit hrs.)
Design, Interactivity, and Media Arts - Illustration (DIILO) (p. 108)
Media Generalist ( 54.0 credit hrs.)
Design, Interactivity, and Media Arts - Media Generalist (DIMGO) (p. 109)
Motion Graphics ( 51.0 credit hrs.)
Design, Interactivity, and Media Arts - Motion Graphics (DIMOO) (p. 110)
Web Design (49.5 credit hrs.)
Design, Interactivity, and Media Arts - Web Design (DIWDO) (p. 110)
DIMA Entrepreneur ( 49.5 credit hrs.)
Design, Interactivity, and Media Arts - DIMA Entrepreneur (DIENO) (p. 111)

## Design, Interactivity, and Media Arts - 2-D <br> Animation (DI2DO)

This concentration focuses on basic 2-D principles of animation and time-based art. Career opportunities include film animation, multimedia and web interface design, and more.

## Requirements

Tier I - Major Requirements (27.0 credit hrs.)
See Tier I - Major requirements for DIMAS (p. 106)
$\begin{array}{lll}\text { Tier II - Required Concentration ( } 45.0 \text { credit hrs.) } & \\ \text { DIMA } 1411 \quad \text { History of Animation } & 4.5\end{array}$
DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5
DIMA $1230 \quad$ Drawing for Electronic Media 4.5
DIMA 1410 2-D Animation and Compositing I 4.5
DIMA $1510 \quad$ Interactive 2-D Design I 4.5
DIMA $1620 \quad$ Introduction to 3-D Modeling and Animation 4.5

| DIMA 2210 | Electronic Illustration | 4.5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DIMA 2410 | 2-D Animation and Compositing II | 4.5 | Tier II - Required Concentration (45.0 credit hrs.) |  |  |
| DIMA 2840 | Projects Development | 4.5 | DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
| ARTS 2010 | Life Drawing | 4.5 |  | Development |  |
| Tier III - Electives (9.0 credit hrs.) |  |  | DIMA 1230 | Drawing for Electronic Media | 4.5 |
| Select 9.0 credit hours from the following: |  |  | DIMA 1400 | Game Design Fundamentals | 4.5 |
| DIMA 1400 | Game Design Fundamentals | 4.5 | DIMA 1411 | History of Animation | 4.5 |
| DIMA 1455 | Introduction to Stop-Motion Animation | 4.5 | DIMA 1625 | Introduction to Stop-Motion Animation Introduction to 3-D Modeling and Animation | 4.5 4.5 |
| DIMA 1500 | Web Design | 4.5 | DIMA 2620 | 3-D Character Development | 4.5 |
| DIMA 2450 | Design for Motion Graphics II | 4.5 |  | OR |  |
| DIMA 2510 | Interactive 2-D Design II | 4.5 | DIMA 2625 | 3-D Modeling for Animation and Games | 4.5 |
| DIMA 2900 | Special Topics in DIMA | variable | DIMA 2640 | 3-D Lab | 4.5 |
| DIMA 2981 | Internship | 4.5 | DIMA 2700 | 3-D Game Development | 4.5 |
| PHOT 1005 | Basic Photography I- Digital | 6.0 | DIMA 2840 | Projects Development | 4.5 |
| VACA 1020 | Audio I | 4.5 | Tier III - Electives (9.0 credit hrs.) |  |  |
| VACA 1130 | Video I-Studio | 4.5 |  |  |  |
| VACA 2220 | Digital Media Editing | 4.5 | Select 9.0 credit hours from the following: |  |  |
| VACA 1110 | Introduction to Scriptwriting | 4.5 | DIMA 1500 | Web Design | 4.5 |
| VACA 2120 | Screenwriting Principles | 4.5 | DIMA 1510 | Interactive 2-D Design I | 4.5 |
| ARTS 2020 | Elementary Painting | 4.5 | DIMA 1410 | 2-D Animation and Compositing I | 4.5 |
| ARTS 2025 | Watercolor | 4.5 | DIMA 2410 | 2-D Animation and Compositing II | 4.5 |
| Curriculum Plan - 2-D |  |  | DIMA 2210 | Electronic Illustration | 4.5 |
|  |  |  | DIMA 2500 | Web Design Partnership Project | 4.5 |
| First Year |  |  | DIMA 2450 | Design for Motion Graphics II | 4.5 |
| Quarter One |  |  | DIMA 2900 | Special Topics in DIMA | variable |
| ARTS 1010 | Elementary Drawing | 4.5 | DIMA 2981 | Internship | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 | PHOT 1005 | Basic Photography I- Digital | 6.0 |
| DIMA 1120 | Digital Design: Vector | 4.5 | VACA 1020 | Audio I | 4.5 |
|  | Gen. Ed. 4.5 |  | VACA 1130 | Video I-Studio | 4.5 |
| Quarter Two |  | VACA 2220 | Digital Media Editing | 4.5 |
| ARTS 1020 |  |  | 2-D Design | 4.5 | VACA 1110 | Introduction to Scriptwriting | 4.5 |
| DIMA 1310 | Typography I | 4.5 | ARTS 2030 | Elementary Sculpture | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 | ARTS 2010 | Life Drawing | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard Development | 4.5 | INFO 2340 | Internet Scripting | 4.5 |
| Quarter Three |  |  | Curriculum Plan -3-D |  |  |
| DIMA 1230 | Drawing for Electronic Media | 4.5 |  |  |  |
| DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |  |  |  |
| DIMA 1411 | History of Animation | 4.5 |  |  | 4.5 |
|  | Gen. Ed. | 4.5 | ARTS 1010 | Elementary Drawing | 4.5 |
| Second Year |  |  | DIMA 1120 | Digital Design: Raster Digital Design: Vector | 4.5 4.5 |
| Quarter One |  |  |  | Gen. Ed. | 4.5 |
| DIMA 1510 | Interactive 2-D Design I | 4.5 | Quarter Two 4.5 |  |  |
| DIMA 1410 | 2-D Animation and Compositing I | 4.5 | ARTS 1020 | 2-D Design | 4.5 |
| ARTS 2010 | Life Drawing | 4.5 | DIMA 1310 | Typography I | 4.5 |
|  | Gen. Ed. | 4.5 | DIMA 1400 | Game Design Fundamentals | 4.5 |
| Quarter Two |  |  | DIMA 1220 | Character, Narrative, and Storyboard Development | 4.5 |
| DIMA 2210 |  | Electronic Illustration |  |  |  | 4.5 |
|  | Gen. Ed. | 4.5 | Quarter Three |  |  |
|  | Tier 3 Elective | 4.5 | DIMA 1230 | Drawing for Electronic Media | 4.5 |
| Quarter Three |  |  | DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |
|  | Gen. Ed. | 4.5 | DIMA 1411 | History of Animation | 4.5 |
|  | Gen. Ed. | 4.5 |  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 | Second Year |  |  |
| DIMA 2840 | Projects Development | 4.5 | Quarter One |  |  |
|  | Design, Interactivity, and Media Arts - 3-D |  |  | DIMA 1450 | Design for Motion Graphics I | 4.5 |
|  |  |  |  | DIMA 2700 | 3-D Game Development | 4.5 |
| Animation and Games (DI3DO) |  |  | DIMA 2625 | 3-D Modeling for Animation and Games | 4.5 |
| Students create models, characters, and imaginative spaces that are the foundation of 3-D film animation and the gaming industry. These skills also apply to marketing, web design, and social media. |  |  | Quarter Two |  |  |
|  |  |  | DIMA 2640 | 3-D Lab | 4.5 |
|  |  |  | DIMA 1455 | Introduction to Stop-Motion Animation | 4.5 |
| Requirements |  |  |  | Gen. Ed. | 4.5 |
| Tier I - Major Requirements (27.0 credit hrs.) |  |  |  |  | 4.5 |
| See Tier I - Ma | quirements for DIMAS (p. 106) |  |  |  |  |

Quarter Three

DIMA 2840

## Design, Interactivity, and Media Arts - Graphic Design (DIGDO)

Students combine creative problem-solving with visual, technical, and artistic skills to communicate messages to a specific audience. Design for print is the emphasis of this program.

## Requirements

Tier I - Major Requirements ( 27.0 credit hrs.)
See Tier I - Major requirements for DIMAS (p. 106)

| Tier II - Required Concentration (45.0 credit hrs.) |  |  |
| :---: | :---: | :---: |
| DIMA 1305 | Concept Development | 4.5 |
| DIMA 1325 | Layout | 4.5 |
| DIMA 1320 | History of Graphic Design | 4.5 |
| DIMA 1500 | Web Design | 4.5 |
| DIMA 1100 | Desktop Publishing Basics - InDesign | 4.5 |
| DIMA 2350 | Typography II | 4.5 |
| DIMA 2352 | Publication Design | 4.5 |
| DIMA 2300 | Logo Design and Branding | 4.5 |
| DIMA 2310 | Information Design | 4.5 |
| DIMA 2810 | Portfolio Development | 4.5 |
| Tier III - Electives (9.0 credit hrs.) |  |  |
| Select 9.0 credit hours from the following: |  |  |
| DIMA 1350 | Print Overview | 4.5 |
| DIMA 2351 | Package Design | 4.5 |
| DIMA 1200 | Illustration I | 4.5 |
| DIMA 2200 | Illustration II | 4.5 |
| DIMA 2981 | Internship | 4.5 |
| DIMA 2900 | Special Topics in DIMA | variable |
| INFO 1311 | Web Page Creation $\sim_{*}$ © | 4.5 |
| DIMA 2500 | Web Design Partnership Project | 4.5 |
| ENTR 1050 | Introduction to Entrepreneurship $\bigcirc$ © | 4.5 |
| DIMA 2700 | 3-D Game Development | 4.5 |

## Curriculum Plan - Graphic Design

First Year

| Quarter One |  |
| :--- | :--- |
| DIMA 1110 | Digital Design: Raster |
| DIMA 1120 | Digital Design: Vector |
| DIMA 1100 | Desktop Publishing Basics - InDesign |
| ARTS 1020 | 2-D Design |
| Quarter Two |  |
| ARTS 1010 | Elementary Drawing |
| DIMA 1310 | Typography I |
| DIMA 1305 | Concept Development |
|  | Gen. Ed. |
| Quarter Three |  |
| DIMA 1325 | Layout |
| DIMA 1320 | History of Graphic Design |
| DIMA 1450 | Design for Motion Graphics I |
| Gen. Ed. |  |
| Second Year |  |
| Quarter One |  |
| DIMA 2300 | Logo Design and Branding |
| DIMA 2350 | Typography II |
| DIMA 1500 | Web Design |
|  | Gen. Ed. |

## Quarter Two

DIMA 1310
Typography I
DIMA 1305

Quarter Three
DIMA 1325
Layou

Design for Motion Graphics
Gen. Ed

## Second Year

Quan 2300
DIMA 2350
Typography II

Gen. Ed.

| Quarter Two |  |  |
| :--- | :--- | :--- |
| DIMA 2310 | Information Design | 4.5 |
| DIMA 2352 | Publication Design | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
| Quarter Three |  |  |
|  | Gen. Ed. | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
| DIMA 2810 | Portfolio Development | 4.5 |

## Design, Interactivity, and Media Arts - Illustration (DIILO)

Students visually solve problems through the use of traditional and digital media as well as introductory animation skills to create visuals in support of a communication idea, mood, and/or concept.

## Requirements

Tier I - Major Requirements (27.0 credit hrs.)
See Tier I - Major requirements for DIMAS (p. 106)
Tier II - Required Concentration (40.5 credit hrs.)

| ARTS 2010 | Life Drawing | 4.5 |
| :--- | :--- | :--- |
| ARTS 2020 | Elementary Painting | 4.5 |
| ARTS 2040 | Elementary Printmaking | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
|  | Development |  |
| DIMA 1230 | Drawing for Electronic Media | 4.5 |
| DIMA 1200 | Illustration I | 4.5 |
| DIMA 2200 | Illustration II | 4.5 |
| DIMA 2210 | Electronic Illustration | 4.5 |
| DIMA 2810 | Porffolio Development | 4.5 |

Tier III - Electives ( 13.5 credit hrs.)
Select 13.5 credit hours from the following:
ARTS $1110 \quad$ Art History-Ancient to Gothic $७$ ©
$\begin{array}{lll}\text { ARTS 1110 } & \text { Art History-Ancient to Gothic } \bullet \bullet & 4.5 \\ & \text { OR } & 4.5\end{array}$
ARTS 2025 Watercolor 4.5
ARTS 1030 3-D Design 4.5
ARTS $1050 \quad$ Creative Careers 4.5
DIMA $1620 \quad$ Introduction to 3-D Modeling and Animation 4.5
DIMA $2981 \quad$ Internship 4.5
DIMA 2900 Special Topics in DIMA variable
DIMA $1411 \quad$ History of Animation 4.5
DIMA $2450 \quad$ Design for Motion Graphics II 4.5
DIMA $1320 \quad$ History of Graphic Design 4.5
DIMA 1325 Layout 4.5
DIMA $2352 \quad$ Publication Design 4.5
DIMA $2350 \quad$ Typography II 4.5
DIMA 1305 Concept Development 4.5
DIMA 2351 Package Design 4.5
PHOT $1005 \quad$ Basic Photography I - Digital 6.0
ENTR 1050 Introduction to Entrepreneurship © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study ${ }^{\circ}$ 4.5
ENTR $2050 \quad$ Marketing for the Entrepreneurß 4.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneur ${ }^{\text {B }} 4.5$
ENTR $2070 \quad$ Financial Topics for the Entrepreneur 3.5

## Curriculum Plan - Illustration

First Year
Quarter One
ARTS $1010 \quad$ Elementary Drawing 4.5
ARTS 1020 2-D Design 4.5
DIMA $1110 \quad$ Digital Design: Raster 4.5
Gen. Ed. 4.5

| Quarter Two |  |  |
| :--- | :--- | ---: |
| DIIA 1120 | Digital Design: Vector | 4.5 |
| ARTS 2010 | Life Drawing | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Three | Typography I | 4.5 |
| DIMA 1310 | Elementary Painting | 4.5 |
| ARTS 2020 | 4.5 |  |
| DIMA 2210 | Electronic Illustration | 4.5 |
|  | Gen. Ed. |  |
| Second Year |  | 4.5 |
| Quarter One |  | 4.5 |
| DIMA 1200 | Illustration I | 4.5 |
| ARTS 2040 | Elementary Printmaking | 4.5 |
| DIMA 1230 | Drawing for Electronic Media |  |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  | 4.5 |
| DIMA 2200 | Illustration II | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
|  | Development |  |
|  | Gen. Ed. | 4.5 |
| Quarter Three | Tier 3 Elective | 4.5 |
| DIMA 2810 | Portfolio Development | 4.5 |
|  | Gen. Ed. | 4.5 |

## Design, Interactivity, and Media Arts - Media Generalist (DIMGO)

The generalist option allows students to customize their degree to meet their unique career goals.

## Requirements

Tier I - Major Requirements (27.0 credit hrs.)
See Tier I - Major requirements for DIMAS (p. 106)
$\begin{array}{lll}\begin{array}{l}\text { Tier II - Required Concentration (40.5 credit hrs.) } \\ \text { DIMA } 1411 \\ \text { History of Animation }\end{array} & 4.5\end{array}$
DIMA $1320 \quad$ OR $\quad$ History of Graphic Design $\quad 4.5$

DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5
DIMA $1230 \quad$ Drawing for Electronic Media 4.5
DIMA $1620 \quad$ Introduction to 3-D Modeling and Animation 4.5
DIMA $1455 \quad$ Introduction to Stop-Motion Animation 4.5
DIMA 1410 2-D Animation and Compositing I 4.5
DIMA $1400 \quad$ Game Design Fundamentals 4.5
DIMA 1500
Web Design
DIMA $1305 \quad$ Concept Development 4.5
DIMA $1200 \quad$ Illustration I 4.5
4.5

DIMA $2840 \quad$ Projects Development 4.5
Tier III - Electives (13.5 credit hrs.)
Select 13.5 credit hours from the following:
DIMA $1230 \quad$ Drawing for Electronic Media 4.5

DIMA $1510 \quad$ Interactive 2-D Design I 4.5
DIMA 2410 2-D Animation and Compositing II 4.5
DIMA $2210 \quad$ Electronic Illustration 4.5
INFO 1311 Web Page Creation $\bigcirc$ © 4.5
INFO $2340 \quad$ Internet Scripting 4.5
DIMA $2500 \quad$ Web Design Partnership Project 4.5
DIMA $2450 \quad$ Design for Motion Graphics II 4.5
DIMA $2510 \quad$ Interactive 2-D Design II 4.5
DIMA 2700 3-D Game Development 4.5
DIMA 2620 3-D Character Development 4.5

| DIMA 2625 | 3-D Modeling for Animation and Games | 4.5 |
| :---: | :---: | :---: |
| DIMA 2640 | 3-D Lab | 4.5 |
| DIMA 2900 | Special Topics in DIMA | variable |
| DIMA 2981 | Internship | 4.5 |
| DIMA 1325 | Layout | 4.5 |
| DIMA 2200 | Illustration II | 4.5 |
| DIMA 2352 | Publication Design | 4.5 |
| DIMA 2350 | Typography II | 4.5 |
| DIMA 2300 | Logo Design and Branding | 4.5 |
| DIMA 2310 | Information Design | 4.5 |
| DIMA 2351 | Package Design | 4.5 |
| DIMA 2500 | Web Design Partnership Project | 4.5 |
| PHOT 1500 | Moving Image Lab | 6.0 |
| PHOT 1005 | Basic Photography I- Digital | 6.0 |
| PHOT 2025 | Intermediate Digital Photography | 6.0 |
| VACA 1020 | Audio I | 4.5 |
| VACA 1110 | Introduction to Scriptwriting | 4.5 |
| VACA 1130 | Video I - Studio | 4.5 |
| VACA 2120 | Screenwriting Principles | 4.5 |
| VACA 2220 | Digital Media Editing | 4.5 |
| ARTS 1110 | Art History-Ancient to Gothic- © | 4.5 |
|  | OR |  |
| ARTS 1120 | Art History-Renaissance to Modern ${ }^{\text {® }}$ | 4.5 |
| ARTS 1030 | 3-D Design | 4.5 |
| ARTS 2010 | Life Drawing | 4.5 |
| ARTS 2020 | Elementary Painting | 4.5 |
| ARTS 2025 | Watercolor | 4.5 |
| ARTS 2030 | Elementary Sculpture | 4.5 |
| ARTS 2040 | Elementary Printmaking | 4.5 |
| ENTR 1050 | Introduction to Entrepreneurship $\sim_{\text {© }}$ © | 4.5 |
| ENTR 2040 | Entrepreneurship Feasibility Study ${ }^{\text {® }}$ | 4.5 |
| ENTR 2050 | Marketing for the Entrepreneur ${ }^{\text {or }}$ | 4.5 |
| ENTR 2060 | Legal Issues for the Entrepreneur ${ }^{\text {- }}$ | 4.5 |
| ENTR 2070 | Financial Topics for the Entrepreneur ${ }_{\text {B }}$ | 4.5 |
| Curriculum Plan - Media Generalist |  |  |
| First Year |  |  |
| Quarter One |  |  |
| ARTS 1010 | Elementary Drawing | 4.5 |
| ARTS 1020 | 2-D Design | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  |  |
| DIMA 1120 | Digital Design: Vector | 4.5 |
| DIMA 1305 | Concept Development | 4.5 |
|  | Gen. Ed. | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard Development | 4.5 |
| Quarter Three |  |  |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
| DIMA 1310 | Typography I | 4.5 |
| DIMA 1400 | Game Design Fundamentals | 4.5 |
|  | Gen. Ed. | 4.5 |
| Second Year |  |  |
| Quarter One |  |  |
| DIMA 1200 | Illustration I | 4.5 |
|  | Gen. Ed. | 4.5 |
| Select one course from the following: |  |  |
| DIMA 1411 | History of Animation | 4.5 |
| DIMA 1320 | History of Graphic Design | 4.5 |
| Select one course from the following: |  |  |
| DIMA 1455 | Introduction to Stop-Motion Animation | 4.5 |
| DIMA 1410 | 2-D Animation and Compositing I | 4.5 |


| Quarter Two |  |  |
| :--- | :--- | ---: |
| DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |
| DIMA 1500 | Web Design | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
| Quarter Three |  |  |
| DIMA 2840 | Projects Development | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Tier 3 Elective | 4.5 |

## Design, Interactivity, and Media Arts - Motion Graphics (DIMOO)

This concentration focuses on time-based art leading to the production of a motion graphics portfolio.

## Requirements

## Tier I - Major Requirements (27.0 credit hrs.)

See Tier I - Major requirements for DIMAS (p. 106)

| Tier II - Required | Concentration (42.0 credit hrs.) |  |
| :--- | :--- | :--- |
| DIMA 1411 | History of Animation | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
|  | Development | 4.5 |
| DIMA 1230 | Drawing for Electronic Media | 4.5 |
| DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |
| DIMA 2450 | Design for Motion Graphics II | 4.5 |
| DIMA 1455 | Introduction to Stop-Motion Animation |  |
|  | OR | 4.5 |
| DIMA 1410 | 2-D Animation and Compositing I | 4.5 |
| DIMA 2210 | Electronic Illustration | 4.5 |
| DIMA 2840 | Projects Development | 6.0 |
| PHOT 1500 | Moving Image Lab |  |
|  | OR | 4.5 |
| VACA 1020 | Audio I |  |
|  | And | 4.5 |

Tier III - Electives (9.0 credit hrs.)
Select 9.0 credit hours from the following:
DIMA $1500 \quad$ Web Design 4.5

DIMA $1510 \quad$ Interactive 2-D Design I 4.5
DIMA $2510 \quad$ Interactive 2-D Design II 4.5
DIMA $1400 \quad$ Game Design Fundamentals 4.5
DIMA $1455 \quad$ Introduction to Stop-Motion Animation 4.5
DIMA 1410 2-D Animation and Compositing I 4.5
DIMA 2410 2-D Animation and Compositing II
DIMA 2700
DIMA 2620
3-D Game Development
4.5

DIMA $2625 \quad$ 3-D Modeling for Animation and Games 4.5
DIMA 2640 3-D Lab 4.5
DIMA 2900 Special Topics in DIMA variable
DIMA $2981 \quad$ Internship 4.5
ARTS $2010 \quad$ Life Drawing 4.5
PHOT $1500 \quad$ Moving Image Lab 6.0
VACA 1020 Audio I 4.5
VACA $1130 \quad$ Video I - Studio 4.5
VACA $2220 \quad$ Digital Media Editing 4.5
VACA $1110 \quad$ Introduction to Scriptwriting 4.5
VACA $2120 \quad$ Screenwriting Principles 4.5
ARTS $2030 \quad$ Elementary Sculpture 4.5
ARTS $2040 \quad$ Elementary Printmaking 4.5

Curriculum Plan - Motion Graphics
First Year

| Quarter One |  |  |
| :---: | :---: | :---: |
| ARTS 1010 | Elementary Drawing | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 |
| DIMA 1120 | Digital Design: Vector | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  |  |
| ARTS 1020 | 2-D Design | 4.5 |
| DIMA 1310 | Typography I | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard Development | 4.5 |
| Quarter Three |  |  |
| DIMA 2840 | Projects Development | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. | 4.5 |
| Second Year |  |  |
| Quarter One |  |  |
| DIMA 1455 | Introduction to Stop-Motion Animation | 4.5 |
| DIMA 1410 | 2-D Animation and Compositing I | 4.5 |
| PHOT 1025 | Digital Photography | 6.0 |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  |  |
| DIMA 2450 | Design for Motion Graphics II | 4.5 |
| DIMA 2210 | Electronic Illustration | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
| Quarter Three |  |  |
|  | Gen. Ed. | 4.5 |
|  | Gen. Ed. | 4.5 |
|  | Tier 3 Elective | 4.5 |
| DIMA 2840 | Projects Development | 4.5 |

## Design, Interactivity, and Media Arts - Web Design (DIWDO)

Students combine creative problem-solving with visual, technical, and artistic skills to create aesthetically pleasing and functional websites.

## Requirements

Tier I - Major Requirements ( 27.0 credit hrs.)
See Tier I - Major requirements for DIMAS (p. 106)
Tier II - Required Concentration (31.5 credit hrs.)
DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5

INFO 1311 Web Page Creation 3.5
DIMA $1500 \quad$ Web Design 4.5
INFO $2340 \quad$ Internet Scripting 4.5
DIMA $1510 \quad$ Interactive 2-D Design I 4.5
DIMA $2500 \quad$ Web Design Partnership Project 4.5
DIMA $2820 \quad$ Web Design Portfolio Development 4.5
Tier III - Electives ( 18.0 credit hrs.)
Select 18.0 credit hours from the following:
DIMA $1411 \quad$ History of Animation 4.5

DIMA $1230 \quad$ Drawing for Electronic Media 4.5
DIMA $1620 \quad$ Introduction to 3-D Modeling and Animation 4.5
DIMA $2510 \quad$ Interactive 2-D Design II 4.5
DIMA $1400 \quad$ Game Design Fundamentals 4.5
DIMA 2700 3-D Game Development 4.5
DIMA 2900 Special Topics in DIMA variable
DIMA 2981 Internship 4.5
DIMA $1320 \quad$ History of Graphic Design 4.5
DIMA 1325 Layout 4.5
DIMA $2350 \quad$ Typography II 4.5

| DIMA 2352 | Publication Design | 4.5 |
| :---: | :---: | :---: |
| DIMA 2300 | Logo Design and Branding | 4.5 |
| DIMA 2310 | Information Design | 4.5 |
| DIMA 2810 | Portfolio Development | 4.5 |
| ARTS 1110 | Art History-Ancient to Gothic-3 | 4.5 |
|  | OR |  |
| ARTS 1120 | Art History-Renaissance to Modern ${ }^{\text {B }}$ | 4.5 |
| HUMS 2310 | Film History and Appreciation* | 4.5 |
| PHOT 1005 | Basic Photography I- Digital | 6.0 |
| PHOT 1500 | Moving Image Lab | 6.0 |
| VACA 1020 | Audio I | 4.5 |
| VACA 1130 | Video I - Studio | 4.5 |
| VACA 2220 | Digital Media Editing | 4.5 |
| VACA 1110 | Introduction to Scriptwriting | 4.5 |
| VACA 2120 | Screenwriting Principles | 4.5 |
| ENTR 1050 | Introduction to Entrepreneurship ¢ © | 4.5 |
| ENTR 2040 | Entrepreneurship Feasibility Study ${ }^{\text {of }}$ | 4.5 |
| ENTR 2050 | Marketing for the Entrepreneur | 4.5 |
| ENTR 2060 | Legal Issues for the Entrepreneur ${ }^{\text {B }}$ | 4.5 |
| ENTR 2070 | Financial Topics for the Entrepreneur ${ }^{\text {B }}$ | 4.5 |

## Curriculum Plan - Web Design

First Year

| Quarter One |  | 4.5 |
| :--- | :--- | :--- |
| ARTS 1010 | Elementary Drawing | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 |
| DIMA 1120 | Digital Design: Vector | 4.5 |
|  | Gen. Ed. |  |
| Quarter Two |  | 4.5 |
| ARTS 1020 | 2-D Design | 4.5 |
| DIMA 1310 | Typography I | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
| INFO 1311 | Web Page Creation © |  |
| Quarter Three |  | 4.5 |
| INFO 2340 | Internet Scripting | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard |  |
|  | Development | 4.5 |
|  | Gen. Ed. | 4.5 |


| Second Year |  |  |
| :--- | :--- | ---: |
| Quarter One |  | 4.5 |
| DIMA 1500 | Web Design | 4.5 |
| DIMA 1510 | Interactive 2-D Design I | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. |  |
| Quarter Two |  | 4.5 |
| DIMA 2500 | Web Design Partnership Project | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. |  |
| Quarter Three |  | 4.5 |
| DIMA 2840 | Projects Development | 4.5 |
|  | Tier 3 Elective | 4.5 |

## Design, Interactivity, and Media Arts - DIMA Entrepreneur (DIENO)

Students prepare for entrepreneurial self-employment opportunities.

| Requirements |  |
| :--- | :--- |
| Tier I - Major Requirements ( 27.0 credit hrs.) |  |
| See Tier I - Major requirements for DIMAS (p. 106) |  |
| Tier II - Required Concentration (27.0 credit hrs.) |  |
| ENTR 1050 | Introduction to Entrepreneurship•• |
| ENTR 2040 | Entrepreneurship Feasibility Study |


| ENTR 2050 | Marketing for the Entrepreneur ${ }^{\text {® }}$ | 4.5 |
| :---: | :---: | :---: |
| ENTR 2060 | Legal Issues for the Entrepreneur ${ }^{\text {B }}$ | 4.5 |
| ENTR 2070 | Financial Topics for the Entrepreneur-3 | 4.5 |
| ENTR 2090 | Entrepreneurship Business Plan* | 4.5 |
| Tier III - Electives (22.5 credit hrs.) |  |  |
| Select 22.5 credit hours from the following: |  |  |
| DIMA 1100 | Desktop Publishing Basics - InDesign | 4.5 |
| DIMA 1220 | Character, Narrative, and Storyboard Development | 4.5 |
| DIMA 1411 | History of Animation | 4.5 |
| DIMA 1500 | Web Design | 4.5 |
| DIMA 1230 | Drawing for Electronic Media | 4.5 |
| DIMA 1305 | Concept Development | 4.5 |
| DIMA 1325 | Layout | 4.5 |
| DIMA 1350 | Print Overview | 4.5 |
| DIMA 1510 | Interactive 2-D Design I | 4.5 |
| DIMA 1400 | Game Design Fundamentals | 4.5 |
| DIMA 1410 | 2-D Animation and Compositing I | 4.5 |
| DIMA 2410 | 2-D Animation and Compositing II | 4.5 |
| DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |
| DIMA 2352 | Publication Design | 4.5 |
| DIMA 2500 | Web Design Partnership Project | 4.5 |
| DIMA 2450 | Design for Motion Graphics II | 4.5 |
| DIMA 2510 | Interactive 2-D Design II | 4.5 |
| DIMA 2700 | 3-D Game Development | 4.5 |
| DIMA 2840 | Projects Development | 4.5 |
| ARTS 1110 | Art History-Ancient to Gothic ${ }^{\text {© }}$ © | 4.5 |
|  | OR |  |
| ARTS 1120 | Art History-Renaissance to Modern-3 | 4.5 |
| HUMS 2310 | Film History and Appreciation ${ }^{\text {B }}$ | 4.5 |
| DIMA 2840: Students may not register for DIMA 2840 without instructor approval. |  |  |
| Curriculum Plan - DIMA Entrepreneur |  |  |
| First Year |  |  |
| Quarter One |  |  |
| ARTS 1010 | Elementary Drawing | 4.5 |
| DIMA 1110 | Digital Design: Raster | 4.5 |
| ENTR 1050 | Introduction to Entrepreneurship $\bigcirc$ © | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  |  |
| ARTS 1020 | 2-D Design | 4.5 |
| DIMA 1120 | Digital Design: Vector | 4.5 |
| ENTR 2040 | Entrepreneurship Feasibility Study ${ }^{\text {O }}$ | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Three |  |  |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
| DIMA 1350 | Print Overview | 4.5 |
| ENTR 2050 | Marketing for the Entrepreneur ${ }^{\text {® }}$ | 4.5 |
|  | Gen. Ed. | 4.5 |
| Second Year |  |  |
| Quarter One |  |  |
| ENTR 2060 | Legal Issues for the Entrepreneur ${ }^{\text {B }}$ | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Two |  |  |
| ENTR 2070 | Financial Topics for the Entrepreneur** | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. | 4.5 |
| Quarter Three |  |  |
| ENTR 2090 | Entrepreneurship Business Plan ${ }^{\text {B }}$ | 4.5 |
|  | Tier 3 Elective | 4.5 |
|  | Gen. Ed. | 4.5 |

## Web Multimedia Production (DIWCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This certificate of achievement gives students and professionals seeking to acquire new skills the foundation required to create and deliver video and multimedia online. Students completing this certificate may seek opportunities in web media design and production.

All digital courses are taught hands-on in a computer lab that is always open during business hours and available to students.

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | 43.5 |

Total credit hours required 57.0

## General education requirements ( 13.5 credit hrs.) Communications

ENGL 1010 English Composition I?

## Humanities/social sciences

Select one course from the following:
ARTS $1110 \quad$ Art History-Ancient to Gothic•• 4.5

ARTS $1120 \quad$ Art History-Renaissance to Modern $७ \quad 4.5$
DIMA $1411 \quad$ History of Animation 4.5
Quantitative/numeracy skills
Mathematics or Financial Literacy
Major requirements for Design, Interactivity, and Media Arts - Web Multimedia Production (43.5 credit hrs.)

## Courses

DIMA 1220
Character, Narrative, and Storyboard
Development
Web Design
4.5

DIMA 1500
DIMA $1450 \quad$ Design for Motion Graphics I $\quad 4.5$
4.5

DIMA $1510 \quad$ Interactive 2-D Design I 4.5
INFO 1311 Web Page Creation $\because$ © 4.5
PHOT $1005 \quad$ Basic Photography I - Digital 6.0
OR
PHOT $1500 \quad$ Moving Image Lab 6.0
VACA $1130 \quad$ Video I - Studio 4.5
VACA $2220 \quad$ Digital Media Editing 4.5

## Narrative Structure and Visualization (DINCC)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate offers students and returning professionals the opportunity to develop a solid foundation in narrative and visualization techniques through the examination and study of visual art history, motion picture history, animation history, and their creative processes. Students completing this career certificate may seek employment in storyboarding and pre-production for motion pictures, television, advertising, marketing, visualization, and web media. NOTE: This career certificate leads to a degree in general studies.

## Requirements for Narrative Structure and Visualization career certificate ( 36.0 credit hrs.)

## Courses

ARTS 1040
New Media Design 4.5
ARTS $1110 \quad$ Art History-Ancient to Gothic © 4.5
ARTS $1120 \quad$ Art History-Renaissance to Modern $3 \quad 4.5$
DIMA $1411 \quad$ History of Animation 4.5
DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5
HUMS $2310 \quad$ Film History and Appreciation $\because 3.5$
VACA $1110 \quad$ Introduction to Scriptwriting 4.5
VACA $2120 \quad$ Screenwriting Principles 4.5

## Web Multimedia Production (DIWCC)

Award: Career certificate
Program location: Elkhorn Valley Campus
This career certificate offers students the foundation skills required to create and deliver video and multimedia online. Students completing this career certificate may seek opportunities in web media design and production. All digital courses are taught hands-on in a computer lab that is always open during business hours and available to students.

| Requirements for Web Multimedia Production career |  |  |
| :--- | :--- | :--- |
| certificate (33.0 credit hrs.) |  |  |
| Courses |  |  |
| DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
|  | Development | 4.5 |
| DIMA 1500 | Web Design | 4.5 |
| DIMA 1450 | Design for Motion Graphics I | 4.5 |
| DIMA 1510 | Interactive 2-D Design I | 4.5 |
| INFO 1311 | Web Page Creation $\smile$ | 6.0 |
| PHOT 1025 | Digital Photography |  |
|  | OR | 6.0 |
| PHOT 1500 | Moving Image Lab | 4.5 |
| VACA 1130 | Video I - Studio |  |
| Degree-seeking students should take PHOT 1500. |  |  |

## Design and Interactive Media Arts Entrepreneurship (DIMCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This degree offers design and interactive media arts students the foundation and additional skills advantageous to the pursuit of entrepreneurial self-employment opportunities in electronic media arts or related disciplines.

Graduation Requirements
General education 13.5
Major requirements 40.5
Total credit hours required 54.0
General education requirements ( 13.5 credit hrs.)
Communications
ENGL $1010 \quad$ English Composition $\operatorname{lB}$ © 4.5

Humanities/social sciences
Select one course from the following:
ARTS 1000 Introduction to the Visual Arts® 4.5
ARTS 1110 Art History-Ancient to Gothic $\because$ • 4.5
ARTS $1120 \quad$ Art History-Renaissance to Modern $\because \quad 4.5$
Quantitative/numeracy skills
Mathematics or Financial Literacy 4.5
See Quantitative/numeracy skills course options (p. 27)
Major requirements for Design and Interactive Media
Arts Entrepreneurship ( 40.5 credit hrs.)
Courses
DIMA $1110 \quad$ Digital Design: Raster 4.5
DIMA $1120 \quad$ Digital Design: Vector 4.5
DIMA $1310 \quad$ Typography I 4.5
DIMA $1450 \quad$ Design for Motion Graphics I 4.5
ENTR $1050 \quad$ Introduction to Entrepreneurship $७$ • 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study $\begin{array}{rl}* & 5\end{array}$
ENTR $2090 \quad$ Entrepreneurship Business Plan $\because \quad 4.5$
Select two courses from the following:
DIMA $1100 \quad$ Desktop Publishing Basics - InDesign 4.5
DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5
DIMA $1305 \quad$ Concept Development 4.5

DIMA 1325 Layout 4.5
DIMA 1400
DIMA 1410
DIMA 1500
DIMA 1510
DIMA 1620
DIMA 2410
DIMA 2450
DIMA 2500
DIMA 2510

| Layout | 4.5 |
| :--- | :--- |
| Game Design Fundamentals | 4.5 |
| 2-D Animation and Compositing I | 4.5 |
| Web Design | 4.5 |
| Interactive 2-D Design I | 4.5 |
| Introduction to 3-D Modeling and Animation | 4.5 |
| 2-D Animation and Compositing II | 4.5 |
| Design for Motion Graphics II | 4.5 |
| Web Design Partnership Project | 4.5 |
| Interactive 2-D Design II | 4.5 |

## Publication Writing and Design (PWDCE)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus
This certificate of achievement offers students and returning professionals the opportunity to develop a solid foundation in print publication design. Students receive instruction in creative and technical writing, copy and content editing, and the foundational techniques of layout and print design. Students completing this certificate of achievement may seek employment in corporate communications, copywriting, marketing support, or magazine and book design. NOTE: This certificate of achievement leads to a general studies degree.

## Graduation Requirements <br> General education 13.5 <br> Major requirements 40.5 <br> Total credit hours required 54.0

General education requirements ( 13.5 credit hrs.)
Communications

| ENGL 1220 | Technical Writing ${ }^{\text {B }}$ | 4.5 |
| :---: | :---: | :---: |
|  | Technical Wring |  |

## Humanities/social sciences

ENGL $2450 \quad$ Introduction to Literature $\smile$ 丹 4.5
Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics

## Major requirements for Publication Writing and Design ( 40.5 credit hrs.)

## Courses

ENGL $1240 \quad$ Oral and Written Reports $\mathcal{B} \quad 4.5$
ENGL $1310 \quad$ Creative Writing 4.5
ENGL $1320 \quad$ Introduction to Publication 4.5
DIMA $1100 \quad$ Desktop Publishing Basics - InDesign 4.5
DIMA 1120 Digital Design: Vector 4.5
DIMA $1305 \quad$ Concept Development 4.5
DIMA $1310 \quad$ Typography I 4.5
DIMA 1325 Layout 4.5
DIMA $2352 \quad$ Publication Design 4.5

## Humanities

The Humanities area offers courses in the areas of humanities, music philosophy, and speech. Two programs of study are available.
Career Certificate:
Global Perspectives
Professional Communication

## Global Perspectives (GLPCC)

Students earning this career certificate increase their knowledge of global and cultural issues, fulfilling the need to understand and facilitate intercultural interactions for careers in today's increasingly global environment. NOTE: This career certificate leads to a general studies degree.

## Requirements for Global Perspectives career certificate (27.0 credit hrs.)

| Courses |  |  |
| :---: | :---: | :---: |
| ARTS 1110 | Art History-Ancient to Gothic 3 ( | 4.5 |
| HIST 1120 | World Civilization from 1500 to Present $\mathcal{B}$ © | 4.5 |
| HUMS 1150 | The Humanities in the Non-Western World -3 | 4.5 |
| PHIL 2200 | Introduction to Comparative Religion-3 | 4.5 |
| POLS 2070 | Contemporary Social and Political Issues-B | 4.5 |
| SOCI 1250 | Introduction to Anthropology ${ }^{\text {O }}$ | 4.5 |

## Professional Communication (PRCCC)

This career certificate prepares students to communicate more effectively in a variety of professional settings. NOTE: This career certificate leads to a general studies degree.

## Requirements for Professional Communication career certificate ( 27.0 credit hrs.)

Courses

| ENGL 1220 | Technical Writing ${ }^{\text {B }}$ | 4.5 |
| :---: | :---: | :---: |
|  | OR |  |
| ENGL 1230 | Business Writing ${ }^{\text {B }}$ | 45 |

ENGL $1240 \quad$ Oral and Written Reportsß $\quad 4.5$
SPCH 1110 Public Speaking $\because$ • 4.5
PHIL 1030 Professional Ethics $\sqrt{\bullet}$ 4.5

| Electives - Select one of the following three areas of emphasis: |
| :--- |
| Creative Communication |
| ENGL 1310 Creative Writing |

ENGL $1320 \quad$ Introduction to Publication 4.5
$\begin{array}{ll}\text { Not-for-Profit Communication } & \\ \text { BSAD } 1250 \quad \text { Introduction to Not-for-Profit Management }\end{array}$
ENGL $2210 \quad$ Grant Writing 4.5
Group Communication
SPCH $1220 \quad$ Communication in Small Groups 4.5
SPCH 1300 Interpersonal Communication 4.5

## Interior Design

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 retailing. Job opportunities include positions as interior design assistants, consultants, and sales personnel for local interior product retailers.

Degree: Associate in Applied Science
Interior Design

## Interior Design (IDAS1)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus
This degree provides students with aesthetic design knowledge and skills and a practical knowledge of retail and business procedures in the area of interior products 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 at Kearney's Interior Design program. Ask an advisor for details.

## Graduation Requirements

General education 27.0
Major requirements 73.0
Total credit hours required 100.0

## General education requirements (27.0 credit hrs.)



Major requirements for Interior Design (73.0 credit hrs.) Courses
INTD $1100 \quad$ Illustration Techniques for Interiors 3.0
INTD $1210 \quad$ Foundations for Interior Design 4.5
INTD 1220 Residential Design 4.5
INTD $1230 \quad$ Kitchen and Bath Design 3.0
INTD $1260 \quad$ Color Theory 4.5
INTD $1310 \quad$ Fundamentals of Textiles 4.5
INTD $1320 \quad$ Interior Finishes and Materials 4.5
INTD $1410 \quad$ History of Architecture and Interiors 4.5
INTD $1420 \quad$ History of Furniture 4.5
INTD $2100 \quad$ Room Rendering 4.5
INTD $2250 \quad$ Commercial Design 4.0
INTD $2520 \quad$ Professional Practice 3.0
INTD $2940 \quad$ Interior Design Capstone 3.0
INTD 2981 Internship 3.0
To register for INTD 2981 Internship, students must contact an interior design instructor and have completed a minimum of 30.0 hours in the Interior Design program.
Select 18.0 credit hours from the following:
ACCT $1050 \quad$ Bookkeeping
$\begin{array}{lll} & \text { OR } & \\ & 3.0 \\ \text { ACCT } 1100 & \text { Accounting I® } \odot & 4.0\end{array}$
ARCH $1100 \quad$ Beginning AutoCAD 4.5
ARCH $1110 \quad$ Intermediate AutoCAD 4.5
ARTS Course of choice 4.5
BSAD $1000 \quad$ Introduction to Business $\bullet$ © 4.5

ENTR $1050 \quad$ Introduction to Entrepreneurship $\because$ © 4.5
BSAD $1200 \quad$ Principles of Selling $\quad 4.5$
ENTR $2050 \quad$ Marketing for the Entrepreneur- 3.5
ENTR $2060 \quad$ Legal Issues for the Entrepreneurß $\quad 4.5$
ENTR $2070 \quad$ Financial Topics for the Entrepreneur色 4.5
INTD 2900 Special Topics in Interior Design variable
To register for INTD 2900, students must contact an interior design instructor and have completed a minimum of 30.0 hours in the interior design program.

## Curriculum Plan

Below is a suggested guide for students planning careers in interior design after two years of full-time study.

## First Year

First Quarter
INTD 1100
INTD $1210 \quad$ Foundations for Interior Design 4.5
INTD $1310 \quad$ Fundamentals of Textiles 4.5
MATH
Cours

Second Quarter

|  | English level I | 4.5 |
| :--- | :--- | ---: |
| INFO 1001 | Information Systems and Literacy $\odot$ | 4.5 |
| INTD 1220 | Residential Design | 4.5 |
| INTD 1320 | Interior Finishes and Materials | 4.5 |
| Third Quarter |  | 4.5 |
|  | English level II | 3.0 |
| INTD 1230 | Kitchen and Bath Design | 4.5 |
| INTD 1260 | Color Theory | 4.5 |
|  | Related discipline |  |
| Second Year |  | 4.5 |
| Fifth Quarter |  | 4.5 |
| INTD 1410 | History of Architecture and Interiors | 9.0 |
| INTD 2100 | Room Rendering |  |
|  | Related discipline | 4.5 |
| Sixth Quarter |  | 4.5 |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.0 |
| INTD 1420 | History of Furniture | 4.5 |
| INTD 2250 | Commercial Design |  |
|  | Related discipline | 4.5 |
| Seventh Quarter |  | 3.0 |
|  | Humanities/social sciences elective | 3.0 |
| INTD 2520 | Professional Practice | 3.0 |

## Languages

Language interpreters provide a crucial service to our communities. Demand for interpreter services in legal, medical, and customer service settings is high. This program enables students to learn the skills to excel in this rewarding field.
Certificate of Achievement:
Language Interpretation

## Language Interpretation (LGICE)

Award: Certificate of achievement
Program location: Online
This certificate offers students the opportunity to improve their language interpreting skills while earning a certificate in interpreting entirely online. Specially designed courses help up-and-coming interpreters learn the skills required to excel in this rewarding field. Note: This certificate of achievement leads to a general studies degree.

## Graduation Requirements

General education 13.5
Major requirements 36.0
Total credit hours required 49.5
General education requirements ( 13.5 credit hrs.)
Communications
ENGL 1010 English Composition Iß 4.5

Social sciences
Social sciences
See Social Sciences course options (p. 25)
Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics $B$
4.5

## Major requirements for Language Interpretation（36．0 credit hrs．）

## Courses

## Initial course sequence

（students must take all courses）

| LANG 1110 | Introduction to Language Interpretation $\mathcal{B}^{\text {a }}$ |
| :---: | :---: |
| LANG 1120 | Interpreting Ethics $\sim$ Э |
| LANG 1130 | Emphasis Seminar＊ |

LANG 1130 Emphasis Seminarß
Specialty course sequences
（students must complete one area of specialization and the special topics course）

## Community specialization

| LANG 2110 | Fundamentals of Community Interpretation $७$ | 4.5 |
| :--- | :--- | :--- |
| LANG 2120 | Community Interpretation－Terminology and | 4.5 |
|  | Sight Translation丹 |  |
| LANG 2130 | Consecutive Interpretation－Community | 4.5 |
| LANG 2140 | Simultaneous Interpretation－Community | 4.5 |

Legal specialization
LANG $2210 \quad$ Fundamentals of Legal Interpretation 3
LANG $2220 \quad$ Legal Terminology and Sight Translation -3 4．5
LANG $2230 \quad$ Consecutive Interpretation－Legalß 4.5
LANG $2240 \quad$ Simultaneous Interpretation－Legal $\Theta>4$
$\begin{array}{lll}\text { Medical specialization } & \\ \text { LANG } 2310 \quad \text { Fundamentals of Medical Interpretation•色 } & 4.5\end{array}$
LANG $2320 \quad$ Medical Terminology and Sight Translation $-\bigoplus$ B 4.5
LANG $2330 \quad$ Consecutive Interpretation－Medical－尹 4.5
LANG $2340 \quad$ Simultaneous Interpretation－Medical $\mathcal{B}$ 4．5
LANG 2900 Special Topics in Languages variable

## Curriculum Plan

Below is a suggested guide for students planning to complete the Language Interpretation certificate after one year of full－time study．

## First Year

First quarter（Fall）
ENGL $1010 \quad$ English Composition I•® 4.5
LANG 1110 Introduction to Language Interpretation - B 4.5
MATH $1220 \quad$ Business Mathematics $\because$ ® 4.5
Second quarter（Winter）
LANG 1120 Interpreting Ethics ß 4.5
LANG $1130 \quad$ Emphasis Seminar $\begin{aligned} & 4.5\end{aligned}$
Social sciences 4.5
Third quarter（Spring）
Specialty course 4.5
Specialty course 4.5
Fourth quarter（Summer）
LANG 2900 Special Topics in Languages variable
Specialty course 4.5
Specialty course 4.5

## Photography

Students in the Photography program learn 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．This program articulates with the University of Nebraska at Omaha＇s College of Communication，Fine Arts，and Media and with Bellevue University．

Degree：Associate in Applied Science
Photography

## Photography（PTAS3）

Award：Associate in applied science degree
Program location：Elkhorn Valley Campus
This degree teaches students to solve photographic problems through the skillful use of camera，lighting，laboratory，and electronic techniques．The program includes experiences in commercial，general，and digital photography．Graduates of this program are prepared for the following employment opportunities： commercial or portraits studio，hospital or research laboratory，newspaper，photo－ finishing laboratory，digital imaging service，retail photo sales，or independent business ownership．Classes in this program transfer to the University of Nebraska－Lincoln．

## Graduation Requirements

| General education | 28.5 |
| :--- | :--- |
| Major requirements | 76.5 |
| Total credit hours required | $\mathbf{1 0 5 . 0}$ |

General education requirements（ 28.5 credit hrs．）
Communications

| ENGL 1010 | English Composition I－ | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition IIf（ | 4.5 |
| Humanities／social sciences |  |  |
| PHOT 1005 | Basic Photography I－Digital | 6.0 |
| Quantitative／numeracy skills |  |  |
|  | Mathematics or Financial Literacy | 4.5 |
| See Quantitative／numeracy skills course options（p．27） |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$（ | 4.5 |

## Major requirements for Photography（ 76.5 credit hrs．）

Students should work with faculty to select courses from the lower list that meet their career goals．

| Courses |  |  |
| :--- | :--- | ---: |
| ARTS 1020 | 2－D Design | 4.5 |
| PHOT 1010 | Basic Photography II－Film | 6.0 |
| PHOT 1015 | Photographic Concepts | 6.0 |
| PHOT 1020 | Color Photography | 6.0 |
| PHOT 1025 | Digital Photography | 6.0 |
| PHOT 1535 | Large Format Photography | 6.0 |
| PHOT 1545 | Photographic Lighting | 6.0 |
| PHOT 2015 | Intermediate Photographic Concepts | 6.0 |
| PHOT 2025 | Intermediate Digital Photography | 6.0 |
| PHOT 2560 | Portfolio Development and Professional | 6.0 |
|  | Practice |  |
| Select 18．0 credit hours from the following： | 4.5 |  |
| ENTR 1050 | Introduction to Entrepreneurship © | 6.0 |
| PHOT 1500 | Moving Image Lab | 6.0 |
| PHOT 1540 | Photojournalism | 6.0 |
| PHOT 1550 | Experimental Photography | 6.0 |
| PHOT 2525 | Advanced Digital Photography | 6.0 |
| PHOT 2535 | Advanced Large Format Photography | 6.0 |
| PHOT 2545 | Advanced Photographic Lighting | 6.0 |
| PHOT 2550 | Advanced Experimental Photography | variable |
| PHOT 2900 | Special Topics in Photography | variable |
| PHOT 2981 | Internship | 4.5 |
| ARTS | Course of choice | 4.5 |
| DIMA | Course of choice | 4.5 |
| VACA | course of choice |  |
| For the most current transfer listings，visit www．mccneb．edu／articulation． |  |  |

## Spanish

There are more native speakers of Spanish than there are native speakers of English in the world today．Knowledge of a second language is a valuable skill， both globally and locally，in business，medical，and service settings．

## Career Certificate：

Spanish for Business
Spanish for Healthcare

## Spanish for Business（SBPS1）

Award：Career certificate
Program location：Elkhorn Valley Campus，Fort Omaha Campus，South Omaha Campus
Speaking and understanding Spanish is a valuable skill in today＇s business world． This career certificate is for students who wish to better communicate with Hispanic business clients．It will prepare them to hold beginning to intermediate conversations with Spanish－speaking individuals．NOTE：This career certificate leads to a general studies degree．

## Requirements for Spanish for Business career certificate（ 24.0 credit hrs．）

## Courses

SPAN $1050 \quad$ Spanish for Business l® 4.5
SPAN $1051 \quad$ Spanish for Business IIB 4.5
SPAN $2050 \quad$ Intermediate Spanish for Business l⿻彐 4.5
SPAN $2051 \quad$ Intermediate Spanish for Business II－ 3.5
SPAN 2981 Spanish for Business Internship variable

## Spanish for Healthcare（SMPS1）

Award：Career certificate
Program location：Elkhorn Valley Campus，Fort Omaha Campus，South Omaha Campus
Students who wish to study Spanish to better communicate with medical patients or clients can earn the Spanish for Healthcare career certificate by completing the following courses．It provides the basic knowledge to hold beginning to intermediate conversations with Spanish－speaking individuals．NOTE：This career certificate leads to a general studies degree．

## Requirements for Spanish for Healthcare career certificate（ 24.0 credit hrs．） <br> Courses <br> SPAN $1060 \quad$ Spanish for Healthcare I－$\quad 4.5$ <br> SPAN $1061 \quad$ Spanish for Healthcare IIß 4.5 <br> SPAN $2060 \quad$ Intermediate Spanish for Healthcare I－B 4.5 <br> SPAN 206 <br> SPAN 2982 Spanish for Healthcare Internship variable <br> Intermediate Spanish for Healthcare IIß <br> 4.5

## 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；develops critical thinking and collaborative skills；and gives a solid background in interdisciplinary arts，social awareness，and appreciation of diverse cultures．

Degree：Associate in Arts
Theatre

## Certificate of Achievement：

Theatre－Playwriting
Theatre－Theatre Technology
Career Certificate：THEA 2901
Playwriting
Theatre Technology

## Theatre（THEAA）

Award：Associate in arts degree
Program location：Elkhorn Valley Campus，Fort Omaha Campus，South Omaha Campus
This degree 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 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．

## Graduation Requirements

General education 31.5
Major requirements 67.0
Total credit hours required 98.5
General education requirements（ 31.5 credit hrs．）
Communications
ENGL $1010 \quad$ English Composition I © 4.5

ENGL $1020 \quad$ English Composition II丹 © 4.5
SPCH $1110 \quad$ Public Speaking $『$ • 4.5
Humanities／social sciences
Humanities／social sciences 4.5
See Humanities／social sciences course options（p．151）
THEA 1000 Introduction to Theatre is recommended．
Quantitative／numeracy skills
Mathematics or Financial Literacy
See Quantitative／numeracy skills course options（p．150）
Other
HMRL $1010 \quad$ Human Relations Skills $\checkmark$ © 4.5
INFO 1001 Information Systems and Literacy $\bullet$ • 4.5
Major requirements for Theatre（ 67.0 credit hrs．）
Courses
THEA 1110 Theatre Technology I 4.0
THEA $2010 \quad$ Script Analysis $\quad 4.5$
THEA $2020 \quad$ Fundamentals of Acting I 4.5
THEA $2030 \quad$ Playwriting I 4.5
THEA $2110 \quad$ Theatre History I 4.5
THEA $2120 \quad$ Theatre History II 4.5
ENGL $2480 \quad$ Introduction to Drama Literature I 4.5
ENGL $2481 \quad$ Introduction to Drama Literature II 4.5
Select 22.5 credit hours from the following：
THEA $1120 \quad$ Theatre Technology II 4.0
THEA $1130 \quad$ Theatre Technology III 4.0
THEA $2021 \quad$ Fundamentals of Acting II 4.5
THEA $2031 \quad$ Playwriting II 4.5
THEA 2040 Movement for the Actor 4.5
THEA $2050 \quad$ Voice for the Actor 4.5
THEA $2150 \quad$ Stage Rigging 4.5
THEA $2160 \quad$ Principles of Stage Lighting 4.5
THEA $2170 \quad$ Stage Management 4.5
THEA $2200 \quad$ Arts Administration 4.5
THEA $2900 \quad$ Special Topics in Theatre variable
THEA 2901 Special Topics in Playwriting variable
THEA 2920 Theatre Practicum variable
THEA $2981 \quad$ Cooperative Study I 4.0
THEA 2982 Cooperative Study II 4.0
THEA $2983 \quad$ Cooperative Study III 4.0

| Select 9.0 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 |

Two courses from the same prefix may be selected.

## Theatre - Playwriting (THEP1)

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

| ENGL 1010 | English Composition 1 © | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition IIP© | 4.5 |
| Humanities |  |  |
|  | Humanities/social sciences | 4.5 |
| See Humanities/social sciences course options (p. 25) |  |  |
| THEA 1000 Introduction to Theatre is recommended. |  |  |
| Quantitative/numeracy skills |  |  |
|  | Mathematics or Financial Literacy | 4.5 |

See Quantitative/numeracy skills course options (p. 27)

## Major requirements for Theatre - Playwriting (36.0 credit hrs.)

## Courses

ENGL $1310 \quad$ Creative Writing 4.5
ENGL $2480 \quad$ Introduction to Drama Literature I 4.5
OR
ENGL 2481 Introduction to Drama Literature II 4.5
THEA $2010 \quad$ Script Analysis 4.5
THEA $2020 \quad$ Fundamentals of Acting I 4.5
THEA $2030 \quad$ Playwriting I 4.5
THEA $2031 \quad$ Playwriting II 4.5
THEA $2110 \quad$ Theatre History I 4.5
THEA $2120 \quad$ Theatre History II 4.5

## Theatre Technology (THETC)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This 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.
The Theatre Technology Apprenticeship program is a two-year program run in conjunction with the Omaha Community Playhouse. In order to satisfy the 1500hour requirement to receive the Theatre Technology Apprenticeship Program Certificate from the U.S. Department of Labor, students are required to complete an additional 24.0 credit hours of cooperative study courses (THEA 2981-THEA 2986) beyond the MCC certificate of achievement.
Graduation RequirementsGeneral education 13.5
Major requirements ..... 34.5
Total credit hours required ..... 48.0
General education requirements ( 13.5 credit hrs.)
Communications
English level I4.5
See Communications course options (p. 25)
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)
Humanities
Humanities
See Humanities course options (p. 25)
THEA 1000 Introduction to Theatre is recommended

## Major requirements for Theatre - Theatre Technology ( 34.5 credit hrs.)

Courses
THEA $1110 \quad$ Theatre Technology I 4.0
THEA $1120 \quad$ Theatre Technology II 4.0
THEA $1130 \quad$ Theatre Technology III 4.0
THEA $2010 \quad$ Script Analysis 4.5
THEA $2110 \quad$ Theatre History I 4.5
THEA $2120 \quad$ Theatre History II 4.5
THEA $2150 \quad$ Stage Rigging 4.5
THEA $2900 \quad$ Special Topics in Theatre variable
THEA $2160 \quad$ Principles of Stage Lighting 4.5

## Theatre Technology (THETD)

Award: Career certificate
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This career certificate prepares students to participate in the backstage technical aspects of theatre production.

Requirements for Theatre Technology career certificate (28.5 credit hrs.)

Courses
THEA $1110 \quad$ Theatre Technology I 4.0
THEA 1120 Theatre Technology II 4.0
THEA $1130 \quad$ Theatre Technology III 4.0
THEA $2010 \quad$ Script Analysis 4.5
THEA 2981 Cooperative Study I 4.0
THEA 2982 Cooperative Study II 4.0
THEA $2983 \quad$ Cooperative Study III 4.0

## VideolAudio Communications Arts

The Video/Audio Communication Arts program teaches students the production process for television, film, commercial, and other media production. Students learn to use professional moving image cameras in the field and the studio. Students learn how to record quality professional audio in the field and studio. Students learn how to write scripts for feature films, commercials, and corporate industrial media. Students also learn how to edit and manipulate visual and sound media using industry standard professional tools and software.

Degree: Associate in Applied Science
Video/Audio Communication Arts
Certificate of Achievement:
Video/Audio Communications Arts - Digital Cinema
Video/Audio Communications Arts - Screenwriting
Video/Audio Communications Arts - Sound Recording

## VideolAudio Communications Arts (VAAAS)

Award: Associate in applied science degree

## Program location: Elkhorn Valley Campus

This degree provides students with a background in various aspects of video and audio production and post-production. Graduates 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 at Omaha College of Communication, Fine Arts, and Media and Bellevue University.

## Graduation Requirements

| General education | 28.5 |
| :---: | :---: |
| Major requirements | 72.0 |
| Total credit hours required | 100.5 |
| General education requirements (28.5 credit hrs.) |  |
| Communications |  |
| ENGL 1010 English Composition I- |  |
| ENGL 1020 English Composition II®* |  |
| Humanities/social sciences |  |
| PHOT 1005 Basic Photography I - Digital |  |
| Quantitative/numeracy skills |  |
| Mathematics or Financial Literacy |  |
| See Quantitative/numeracy skills course options (p. 150) |  |
| Other |  |
| HMRL 1010 Human Relations Skills $\bigcirc$ © |  |
| INFO 1001 Information Systems and Literacy ${ }^{\text {© }}$ |  |

## Major requirements for Video/Audio Communication Arts (72.0 credit hrs.)

## Courses

ARTS 1020 2-D Design 4.5
DIMA $1450 \quad$ Design for Motion Graphics I 4.5
PHOT $1025 \quad$ Digital Photography 6.0
PHOT $1500 \quad$ Moving Image Lab 6.0
VACA $1010 \quad$ Audio and Video Production Engineering 4.5
VACA 1020 Audio I 4.5
VACA $1110 \quad$ Introduction to Scriptwriting 4.5
VACA $1130 \quad$ Video I - Studio 4.5
VACA $2120 \quad$ Screenwriting Principles 4.5
VACA $2130 \quad$ Video II - Field 4.5
VACA $2131 \quad$ Video III - Project Development 4.5
VACA $2220 \quad$ Digital Media Editing 4.5
VACA $2540 \quad$ Video Portfolio Development 3.0
VACA $2940 \quad$ MetroVision Practicum 3.0

VACA 2981 Internship variable

| Select 9.0 credit hours from the following: |  |  |
| :--- | :--- | ---: |
| ARTS 1010 | Elementary Drawing |  |
| DIMA 1220 | Character, Narrative, and Storyboard | 4.5 |
|  | Development | 4.5 |
| DIMA 1620 | Introduction to 3-D Modeling and Animation | 4.5 |
| ENGL 1310 | Creative Writing | 4.5 |
| ENGL 2480 | Introduction to Drama Literature I | 4.5 |
| HUMS 2310 | Film History and Appreciation | 4.5 |
| PHOT 1540 | Photojournalism | 6.0 |
| PHOT 2025 | Intermediate Digital Photography | 6.0 |
| THEA 2010 | Script Analysis | 4.5 |
| THEA 2020 | Fundamentals of Acting I | 4.5 |
| VACA 2020 | Audio II | 4.5 |
| VACA 2030 | Audio III | 4.5 |
| VACA 2050 | Pro-Tools | 4.5 |
| VACA 2060 | Audio Mixing and Summing | 4.5 |
| VACA 2070 | Modern Recording Techniques | 4.5 |
| VACA 2230 | Video Post-Production | 4.5 |
| VACA 2240 | Cinematography | 4.5 |
| VACA 2900 | Special Topics in VideolAudio | variable |

## Video/Audio Communications Arts - Digital Cinema (VDCC1)

Award: Certificate of achievement Program location: Elkhorn Valley Campus
This certificate provides students with basic skills using tools in digital film production. Students may seek employment in entry-level production environments, freelance positions, or as independent filmmakers.
Graduation Requirements
General education 13.5
Major requirements 42.0
Total credit hours required 55.5
General education requirements ( 13.5 credit hrs.) Communications
ENGL $1010 \quad$ English Composition I• © 4.5

Humanities/social sciences
HUMS $2310 \quad$ Film History and Appreciation -3 4
Quantitative/numeracy skills
MATH $1240 \quad$ Applied Mathematics 4.5

## Major requirements for Video/Audio Communication <br> Arts - Digital Cinema ( 42.0 credit hrs.) <br> Courses

PHOT $1500 \quad$ Moving Image Lab 6.0
VACA $1020 \quad$ Audio I 4.5
VACA 1110 Introduction to Scriptwriting 4.5
VACA $2120 \quad$ Screenwriting Principles 4.5
VACA $2130 \quad$ Video II - Field 4.5
VACA $2131 \quad$ Video III - Project Development 4.5
VACA $2220 \quad$ Digital Media Editing 4.5
VACA 2240 Cinematography 4.5
Select 4.5 credit hours from the following:
DIMA $1220 \quad$ Character, Narrative, and Storyboard 4.5
DIMA $1450 \quad$ Design for Motion Graphics I 4.5
DIMA $1620 \quad$ Introduction to 3-D Modeling and Animation 4.5
PHOT 1005 Basic Photography I - Digital $\quad 6.0$
PHOT $1025 \quad$ Digital Photography 6.0
THEA $2020 \quad$ Fundamentals of Acting I 4.5
VACA $1010 \quad$ Audio and Video Production Engineering 4.5
VACA 1130 Video I Studio 4.5
VACA $2020 \quad$ Audio II 4.5
VACA 2050 Pro-Tools 4.5

| VACA 2540 | Video Portfolio Development | 3.0 |
| :--- | :--- | ---: |
| VACA 2900 | Special Topics in Video/Audio | variable |
| VACA 2940 | MetroVision Practicum | 3.0 |

Degree-seeking students should select DIMA 1450, PHOT 1005, PHOT 1025, VACA 1010, VACA 1130, or VACA 2540.

## Video/Audio Communications Arts Screenwriting (VACS1)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This certificate of achievement provides students with an in-depth opportunity to learn writing for the screen in traditional media, short and feature film, and new media. Students may seek employment in the production industry as a commercial screenwriter, corporate/industrial screenwriter, or as an independent screenwriter. NOTE: This certificate of achievement leads to a general studies degree.

## Graduation Requirements <br> General education 18.0 <br> Major requirements 33.0 <br> Total credit hours required 51.0

## General education requirements ( 18.0 credit hrs.)

## Communications

ENGL $1010 \quad$ English Composition Iß © 4.5

ENGL $1020 \quad$ English Composition II® © 4.5
Humanities
HUMS 2310
Film History and Appreciation -3
Quantitative/numeracy skills
Mathematics or Financial Literacy
See Quantitative/numeracy skills course options (p. 27)

## Major requirements for VideolAudio Communications Arts - Screenwriting ( 33.0 credit hrs.)

## Courses

ENGL $1310 \quad$ Creative Writing 4.5
PHOT $1500 \quad$ Moving Image Lab 6.0
THEA $2010 \quad$ Script Analysis 4.5
THEA $2020 \quad$ Fundamentals of Acting I 4.5
VACA $1110 \quad$ Introduction to Scriptwriting 4.5
VACA $2120 \quad$ Screenwriting Principles 4.5
VACA $2240 \quad$ Cinematography 4.5

## VideolAudio Communications Arts - Sound Recording (VSRC1)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus
This certificate provides students with basic professional skills to work in the audio recording field. Students 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. NOTE: This certificate of achievement leads to a general studies degree.

## Graduation Requirements

| General education | 13.5 |
| :--- | ---: |
| Major requirements | 42.0 |
| Total credit hours required | 55.5 |
| General education requirements (13.5 credit hrs.)  <br> Communications  <br> ENGL 1010 English Composition lea |  |42.055.5

ENGL 1010
Humanities/social sciences
Humanities/social sciences ..... 4.5
See Humanities/social science
Quantitative/numeracy skills

MATH $1240 \quad$ Applied Mathematics 4.5

## Major requirements for Video/Audio Communications Arts - Sound Recording ( 42.0 credit hrs.)

Students should work with faculty to select courses from the list that meet their career goals

## Courses

PHOT $1500 \quad$ Moving Image Lab 6.0
VACA $1010 \quad$ Audio and Video Production Engineering 4.5
VACA 1020 Audio I 4.5
VACA 1110 Introduction to Scriptwriting 4.5
VACA 2020 Audio II 4.5
VACA $2030 \quad$ Audio III 4.5
VACA 2981 Internship variable
VACA 2050 Pro-Tools 4.5
VACA $2060 \quad$ Audio Mixing and Summing 4.5
VACA $2070 \quad$ Modern Recording Techniques 4.5
Internship must be taken for 4.5 credit hours if taken in lieu of VACA 2030 Audio III.

## Information Technology and E-Learning

Individuals interested in an IT career should be curious, have the ability to think logically, and have strong problem-solving skills. A working knowledge of mathematics and good communication skills are also important because troubleshooting, teamwork, and helping others are important aspects of most IT jobs. In addition, Web developers also need creative skills. Whether dealing with customers, managers, or other computer specialists, IT professionals need the abilities to solve technical challenges as well as to communicate effectively on paper, in person, and electronically.

## Computer Technology Transfer

Degree: Associate in Science
Computer Technology Transfer - Computer Science
Computer Technology Transfer - Information Assurance
Computer Technology Transfer - Management Information Systems

## Computer Technology Transfer - Computer Science (CTSAS)

Award: Associate in science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

This degree provides students with the dual option of seeking entry-level programming positions and/or continuing their studies at a four-year institution. Currently, Bellevue University and the University of Nebraska at Omaha accept this degree. Areas of emphasis include Logic C, C++, VB, and Java.

## Graduation Requirements

| General education | $42.5-44.0$ |
| :--- | :--- |
| Major requirements | 60.5 |
| Total credit hours required | $\mathbf{1 0 3 . 0 - 1 0 4 . 5}$ |

## General education requirements (42.5-44.0 credit hrs.)

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

## Communications

ENGL $1010 \quad$ English Composition $\operatorname{lB}$ © 4.5
ENGL 1020 English Composition IIß © 4.5
SPCH 1110 Public Speaking © © 4.5

| Social sciences |  |  |
| :---: | :---: | :---: |
| Select two courses from the following: |  |  |
| ECON 1000 | Macroeconomics* | 4.5 |
| ECON 1100 | Microeconomics $\sim_{\text {- }}$ | 4.5 |
| PSYC 1010 | Introduction to Psychology © | 4.5 |
| SOCI 1010 | Introduction to Sociology ${ }_{\text {© }}$ | 4.5 |
| SOCI 2050 | Current Social Problems* | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1420 | College Algebra* | 5.0 |
| MATH 1420: Additional prerequisite(s) may be required. |  |  |
| Natural sciences |  |  |
|  | Natural sciences | 6.0-7.5 |
| See Natural sciences course options (p. 151) |  |  |
| CHEM 1010/CHEM 1010L or PHYS 110A-C/PHYS 110AL-CL recommended; students may waive hidden prerequisites. |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills ${ }^{\text {¢ }}$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| Major requirements for Computer Technology Transfer - Computer Science ( 60.5 credit hrs.) |  |  |
| Courses |  |  |
| INFO 1003 | Introduction to Computer Programming | 5.0 |
| INFO 1023 | Networking Essentials | 4.5 |
| INFO 1521 | Java Programming İ8 | 4.5 |
| INFO 1523 | Visual Basic. NET İ | 4.5 |
| INFO 1531 | Java Programming IIV* | 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 1-8 | 7.5 |
| MATH 2411 | Calculus IITo | 7.5 |
| INFO 1522 | C++ Programming 18 | 4.5 |
| INFO 1532 | C++ Programming II® | 4.5 |

MATH 2410: Additional prerequisite(s) may be required.
For the most current transfer listings, visit www.mccneb.edu/articulation.

## Computer Technology Transfer - Information Assurance (CTIAS)

Award: Associate in science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online
This degree provides students with the dual option of seeking entry-level information assurance positions and/or continuing their studies at a four-year institution. Currently, Bellevue University and the University of Nebraska at Omaha accept this degree. Areas of emphasis include policy, systems hardening, systems testing, border security, forensics, and legal issues.
Graduation Requirements
General education 44.0
Major requirements 54.5
Total credit hours required 98.5
General education requirements ( 44.0 credit hrs.)
Communications

| ENGL 1010 | English Composition 1 O | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II- | 4.5 |
| SPCH 1110 | Public Speaking © | 4. |
| Social sciences |  |  |
| SOCI 1010 | Introduction to Sociology- | 4.5 |


| Select one of the following: |  |  |
| :--- | :--- | ---: |
| ECON 1000 | Macroeconomics | 4.5 |
| ECON 1100 | Microeconomics $\because$ | 4.5 |

PSYC 1010 Introduction to Psychology ${ }^{\text {® }}$ • 4.5
SOCI $2050 \quad$ Current Social Problems $\mathcal{\ominus} \quad 4.5$
Quantitative/numeracy skills
MATH $1420 \quad$ College Algebra $\checkmark$ - 5.0
MATH 1420: Additional prerequisite(s) may be required.
Natural sciences

| PHYS 110A | Principles of Physics IA | 2.5 |
| :--- | :--- | :--- |
| PHYS 110AL | Principles of Physics IA Lab | 0.0 |
| PHYS 110B | Principles of Physics IB | 2.5 |
| PHYS 110BL | Principles of Physics IB Lab | 0.0 |
| PHYS 110C | Principles of Physics IC | 2.5 |
| PHYS 110CL | Principles of Physics IC Lab | 0.0 |
| Other |  |  |
| HMRL 1010 | Human Relations Skills © | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |

## Major requirements for Computer Technology Transfer - Information Assurance ( 54.5 credit hrs.)

## Courses

INFO 1003 Introduction to Computer Programming $\downarrow$ © 5.0
INFO $1110 \quad$ Windows Operating Systems I $\mathcal{B}$ • 4.5
INFO 1521 Java Programming lও 4.5
INFO 1523 Visual Basic.NET I-丹 4.5
INFO 1620 Introduction to Database Design $\bigcirc$ © 4.5
INFO $2362 \quad$ Building Secure Environments $\because$ © 4.5
INFO $2537 \quad$ Data Structures Using C and C++ $\quad 4.5$
INFO 2630 Structured Query Language (SQL) B 4.5
INFO $2805 \quad$ Network and Information Security Basics $\backsim$ B 4.5
INFO $2806 \quad$ Network Attacks, Intrusions, and Penetration 4.5
INFO 2808 Boundary Protection 3 B 4.5
INFO 2809 Information Systems, Forensics, and Legal 4.5

Computer Technology Transfer - Management Information Systems (CTMAS)
Award: Associate in science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online
This degree provides students with the dual option of seeking entry-level programming positions and/or continuing their studies at a four-year institution. Currently, Bellevue University and the University of Nebraska at Omaha accept this degree. Areas of emphasis include Logic C, C++, VB, and Java.

## Graduation Requirements

| General education | $47.0-48.5$ |
| :--- | :--- |
| Major requirements | 53.0 |
| Total credit hours required | $\mathbf{1 0 0 . 0 - 1 0 1 . 5}$ |

## General education requirements (47.0-48.5 credit hrs.)

The general education requirements for this degree program exceed the minimum standard number of hours. For more information, contact Student Services.
Communications

| ENGL 1010 | English Composition l ¢ © | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II- | 4.5 |
| SPCH 1110 | Public Speaking © | 4.5 |
| Social sciences |  |  |
| ECON 1000 | Macroeconomics ${ }^{\text {® }}$ | 4.5 |
| ECON 1100 | Microeconomics $\checkmark$ - | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1420 | College Algebra $\checkmark$ | 5.0 |

MATH 1420: Additional prerequisite(s) may be required.

## Natural sciences

Natural sciences 6.0-7.5
See Natural Sciences course options (p. 151)
PHYS 110A-C/PHYS 110AL-CL is recommended.
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ • 4.5
INFO 1001 Information Systems and Literacy $\bullet$ • 4.5
Cultural diversity
Select one course from the following:
ENGL $2530 \quad$ Ethnic Literature 4.5

HIST $1050 \quad$ Introduction to Black History 3 B 4.5
HIST $1110 \quad$ World Civilization from Prehistory to 1500 3
HIST $1120 \quad$ World Civilization from 1500 to Present $\mathcal{G}$ © 4.5
Major requirements for Computer Technology Transfer - Management Information Systems ( 53.0 credit hrs.)

Courses
ACCT 1100 Accounting 1 © $\bullet$ 4.0
ACCT 1110 Accounting $\operatorname{IH}$ ® • 4.0
ACCT 1120 Accounting III $\bigcirc$ © 4.0
INFO 1003 Introduction to Computer Programming
INFO 1521 Java Programming lio 4.5
INFO 1523 Visual Basic.NET I-B 4.5
INFO 1531 Java Programming II色 4.5
INFO 1620 Introduction to Database Design $\odot$ © 4.5
INFO $2537 \quad$ Data Structures Using C and C++ß $\quad 4.5$
INFO $2630 \quad$ Structured Query Language (SQL) B $\quad 4.5$
INFO 1522 C++ Programming IB 4.5
INFO 1532 C++ Programming II色 4.5
INFO 2630: Students are required to take an additional upper- division databaserelated course at UNO to meet UNO's degree requirements.
Students may waive hidden prerequisites for INFO classes.
For the most current transfer listings, visit www.mccneb.edu/articulation.

## General Information Technology

Degree: Associate in Applied Science
General Information Technology
Certificate of Achievement:
General Information Technology - Computer Programming
General Information Technology - UNIX/Linux Operating Systems

## General Information Technology (GITAS)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

Information Technology is an integral part of today's business environment. This degree provides a process where students can customize an IT degree to meet the needs and requirements of current and future IT jobs.

## Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 40.5 |
| Total credit hours required | $99.5-100.0$ |

## General education requirements (27.0-27.5 credit hrs.)

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

## Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)

| Humanities/social sciences |  |  |
| :---: | :---: | :---: |
|  | Humanities/social sciences | 4.5 |
| See Humanities/social sciences course options (p. 25) |  |  |
| Quantitative/numeracy skills |  |  |
| MATH 1220 | Business Mathematics ${ }^{*}$ | 4.5 |
|  | OR |  |
| MATH 1420 | College Algebra | 5.0 |

MATH 1420: Students transferring to a four-year institution must take this course. Additional prerequisite(s) may be required.
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacye 0 4.5

## Major requirements for General Information Technology ( 32.0 credit hrs.)

Courses
INFO 1002 Introduction to Information Technology $\bullet$ © 4.5
INFO 1003 Introduction to Computer Programming - © 5.0
INFO 1111 Linux Operating Systems IB 4.5
INFO 1023 Networking Essentials $\checkmark$ © 4.5
INFO $1110 \quad$ Windows Operating Systems IT © 4.5
INFO 1311 Web Page Creation $\quad 4.5$
INFO 1620 Introduction to Database Design $\bigcirc$ © 4.5

## Option requirements for General Information Technology ( 40.5 credit hrs.)

Students are required to meet with designated faculty after completing six core courses to plan the remainder of the course of study. Students build their degree from any of the Information Technology degree options, Computer Technology Transfer degrees, Microcomputer Technology certificate options, or the Electronics Technology degree. Students must take 18.0 credit hours of advanced coursework plus a capstone course.

## Curriculum Plan

Below is a suggested guide for students planning careers in general information technology after two years of full-time study.

## First Year <br> First quarter

|  | English level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |
| INFO 1003 | Introduction to Computer Programming ${ }^{( }$© | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{\text {P }}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems I- © | 4.5 |
| INFO 1620 | Introduction to Database Design ${ }^{\text {® }}$ © | 4.5 |
| Third quarter |  |  |
|  | English level II | 4.5 |
| INFO 1023 | Networking Essentials $\uparrow$ © | 4.5 |
| INFO 1311 | Web Page Creation ${ }^{\text {© }}$ © | 4.5 |
| Fourth quarter |  |  |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| INFO 1111 | Linux Operating Systems I* | 4.5 |
| MATH 1220 | Business Mathematics $\checkmark$ | 4.5 |
|  | OR |  |
| MATH 1420 | College Algebra* | 5.0 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO | Elective | 4.5 |
| INFO | Elective | 4.5 |
| INFO | Elective | 4.5 |
| Sixth quarter |  |  |
| INFO | Elective | 4.5 |
| INFO | Elective | 4.5 |
| INFO | Elective | 4.5 |


| Seventh quarter |  | 4.5 |
| :--- | :--- | ---: |
| INFO | Elective | 4.5 |
| INFO | Elective | 4.5 |
|  | Social sciences elective |  |
| Eighth quarter |  | 4.5 |
| INFO | Capstone course |  |
| Students who complete an Associate in Applied Science in Information |  |  |
| Technology at MCC have completed the major requirements for Bellevue |  |  |
| University. Students need to take at least 30.0 semester hours at Bellevue and |  |  |
| can take additional coursework at MCC toward their Bellevue University degree. |  |  |

## General Information Technology - Computer Programming (CPTCE)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

This certificate of achievement provides students with a foundation in programming logic and modern computer languages. Students become familiar with a language that is utilized in today's IT businesses.

## Graduation Requirements

| General education | $13.5-14.0$ |
| :--- | :--- |
| Major requirements | 36.5 |
| Total credit hours required | $\mathbf{5 0 . 0 - 5 0 . 5}$ |

## General education requirements (13.5-14.0 credit hrs.)

Communications

|  | English level I | 4.5 |
| :---: | :---: | :---: |
| See Communications course options (p. 25) |  |  |
| Other |  |  |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4. |
| Quantitative/numeracy skills |  |  |
| MATH 1220 | Business Mathematics ${ }_{\text {B }}$ | 4. |
|  | OR |  |
| MATH 1420 | College Algebra $\sim^{*}$ | 5.0 |

MATH 1420: Additional prerequisite(s) may be required.

## Major requirements for Computer Programming (36.5 credit hrs.)

## Courses

INFO 1003 Introduction to Computer Programming © 5.0
INFO 1009 Introduction to Cloud Computing 4.5
INFO $1311 \quad$ Web Page Creation $\bullet$ © 4.5
INFO 1620 Introduction to Database Design © © 4.5
INFO 2351 Introduction to XML - © 4.5
INFO 2630 Structured Query Language (SQL)ß 4.5
Select one of the following pair of language options:
Option 1:
INFO 1521 Java Programming lỉ 4.5
INFO 1531 Java Programming II色 4.5
Option 2:
INFO 1523 Visual Basic.NET I- 4.5
INFO 1533 Visual Basic.NET II円 $\quad 4.5$
Option 3:
INFO 1526 C\# (C-Sharp) Programming IB 4.5
INFO 1536 C\# (C-Sharp) Programming IIB $\quad 4.5$

## Curriculum Plan

Below is a suggested guide for students planning careers in computer programming after one year of full-time study.

First Year

| First quarter |  |  |
| :---: | :---: | :---: |
|  | English level I | 4.5 |
| INFO 1001 | Information Systems and Literacy- | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\checkmark$ © | 5.0 |
| Second quarter |  |  |
| INFO 1009 | Introduction to Cloud Computing ${ }^{\text {B }}$ | 4.5 |
| INFO 1620 | Introduction to Database Design $\bigcirc$ © | 4.5 |
| MATH 1220 | Business Mathematics ${ }_{\text {B }}$ | 4.5 |
|  | OR |  |
| MATH 1420 | College Algebra $\sim$ | 5.0 |
| Third quarter |  |  |
| INFO 1311 | Web Page Creation $\bigcirc$ | 4.5 |
| INFO 2630 | Structured Query Language (SQL)* | 4.5 |
|  | Language option | 4.5 |
| Fourth quarter |  |  |
| INFO 2351 | Introduction to XML ® $^{\text {© }}$ | 4.5 |
|  | Language option | 4.5 |

## General Information Technology - UNIX/Linux Operating Systems (LNXSC)

Award: Certificate of achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online
UNIX and Linux are popular operating systems in the information world today.
This certificate of achievement provides skills in using these operating systems.
Graduation Requirements

| General education | $18.0-18.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Total credit hours required | $\mathbf{5 0 . 0 - 5 0 . 5}$ |

## General education requirements (18.0-18.5 credit hrs.)

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

Communications
English level I 4.5
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
Select one course from the following:
MATH $1220 \quad$ Business Mathematics $-\mathcal{B} \quad 4.5$
MATH 1420 College Algebra $\checkmark$ ß $\quad 5.0$
MATH 1420: Additional prerequisite(s) may be required.
Other
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for UNIX/Linux Operating Systems ( 32.0 credit hrs.)

Courses
INFO 1003 Introduction to Computer Programming © © 5.0
INFO $1110 \quad$ Windows Operating Systems I- $\bullet$ • 4.5
INFO 1111 Linux Operating Systems IB 4.5
INFO 1113 AIX Operating System 4.5
INFO $1120 \quad$ Windows Operating System IIB 4.5
INFO 1121 Linux Operating Systems II 4.5
INFO 2122 UNIX Scripting $\mathfrak{\ominus}$ 4.5

| Curriculum Plan |  |  |
| :---: | :---: | :---: |
| Below is a suggested guide for students planning careers in UNIX/Linux operating systems. |  |  |
| First Year |  |  |
| First quarter |  |  |
|  | ENGL level I | 4.5 |
| INFO 1001 | Information Systems and Literacy © | 4.5 |
| INFO 1003 | Introduction to Computer Programming © | 5.0 |
| Second quarter |  |  |
|  | Social science elective | 4.5 |
| INFO 1110 | Windows Operating Systems I- $\bullet$ | 4.5 |
| INFO 1111 | Linux Operating Systems Ifo | 4.5 |
| Third quarter |  |  |
| INFO 1113 | AIX Operating System | 4.5 |
| INFO 1120 | Windows Operating System IIFO | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Fourth quarter |  |  |
| INFO 1121 | Linux Operating Systems II | 4.5 |
| INFO 2122 | UNIX Scripting ${ }^{\text {B }}$ | 4.5 |

## Electronics Technology

Electronics is an industrial area of growth and opportunity. The Electronics
Technology program trains students in basic electronics skills and Cisco systems necessary for immediate employment.

## Degree: Associate in Applied Science

Electronics Technology - Cisco Network Technician
Electronics Technology - Computer Electronics
Certificate of Achievement:
Electronics Technology - Cisco Networking
Electronics Technology - Microcomputer Repair
Career Certificate:
Cisco Certified Network Associate

## Electronics Technology - Cisco Network Technician (ELNCO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree provides students with the latest knowledge used by many businesses to build and maintain their network systems. Students learn the hands-on skills needed to build networks as well as the skills needed to successfully complete the Cisco certification (CCNA).

## Graduation Requirements

| General education | 27.5 |
| :--- | :--- |
| Major requirements | 54.0 |
| Option requirements | 18.0 |
| Total credit hours required | 99.5 |

## General education requirements ( 27.5 credit hrs.)

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

## Communications

```
English level| 4.5
```

English level II 4.5

See Communications course options (p. 25)
Humanities/social sciences Humanities/social sciences

| Quantitative/numeracy skills |  |  |
| :---: | :---: | :---: |
| MATH 1420 | College Algebra ${ }^{\text {B }}$ | 5.0 |
| MATH 1420: Additional prerequisite(s) may be required. |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ ( | 4.5 |
| Major requirements for Electronics Technology - Cisco Network Technician ( 54.0 credit hrs.) |  |  |
| Courses |  |  |
| ELEC 1100 | IT Essentials PC Repair I | 4.5 |
| ELEC 1110 | IT Essentials PC Repair II | 4.5 |
| ELEC 1200 | Cisco Network Fundamentals | 9.0 |
| ELEC 1210 | Cisco Routing | 9.0 |
| ELEC 2220 | Cisco LAN Switching | 9.0 |
| ELEC 2225 | CCNA Security | 4.5 |
| ELEC 2230 | Cisco Accessing the WAN | 9.0 |
| INFO 1110 | Windows Operating Systems 1-® | 4.5 |
| Option requirements for Electronics Technology Cisco Network Technician (18.0 credit hrs.) |  |  |
| Courses |  |  |
| Select 18.0 credit hours from the following: |  |  |
| INFO 1003 | Introduction to Computer Programming $\bigcirc$ © | 5.0 |
| INFO 1111 | Linux Operating Systems İB | 4.5 |
| INFO 1120 | Windows Operating System IIM | 4.5 |
| INFO 2135 | Network Infrastructure B $^{\text {a }}$ | 4.5 |
| INFO 2142 | Windows Active Directory ${ }^{\text {B }}$ | 4.5 |
| INFO 1120: Additional prerequisite(s) may be required. |  |  |
| Curriculum Plan |  |  |
| Below is a suggested guide for students planning careers as network technicians after two years of full-time study. |  |  |
| First Year |  |  |
| First quarter |  |  |
| ELEC 1100 | IT Essentials PC Repair I | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{(1)}$ | 4.5 |
| MATH 1420 | College Algebra ${ }^{\text {B }}$ | 5.0 |
| Second quarter |  |  |
| ELEC 1110 | IT Essentials PC Repair II | 4.5 |
|  | English level I | 4.5 |
|  | Humanities/social science elective | 4.5 |
| Third quarter |  |  |
| ELEC 1200 | Cisco Network Fundamentals | 9.0 |
| INFO 1110 | Windows Operating Systems 1 © | 4.5 |
| Fourth quarter |  |  |
| ELEC 1210 | Cisco Routing | 9.0 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| ELEC 2220 | Cisco LAN Switching | 9.0 |
|  | Elective | 4.5 |
| Sixth quarter |  |  |
| ELEC 2230 | Cisco Accessing the WAN | 9.0 |
|  | Elective | 4.5 |
| Seventh quarter |  |  |
|  | English level II | 4.5 |
|  | Electives | 9.0 |
| Eighth quarter |  |  |
| ELEC 2225 | CCNA Security | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Electronics Technology - Computer Electronics (ELCEO)

Award: Associate in applied science degree
Program location: South Omaha Campus
This degree provides students with comprehensive knowledge of electronics that can be applied to many facets of the computer field.

## Graduation Requirements

| General education | 27.5 |
| :--- | :--- |
| Major requirements | 54.5 |
| Option requirement | 18.0 |

Total credit hours required 100.0
General education requirements ( 27.5 credit hrs.)
The general education requirements for this degree program exceed the minimum standard number of hours. For more information, contact Student Services.

## Communications

## English level I

4.5

English level II
4.5

See Communications course options (p. 25)
Humanities/social sciences Humanities/social sciences
See Humanities/social sciences course options (p. 25)
Quantitative/Numeracy Skills
MATH $1420 \quad$ College Algebra $\because$
MATH 1420: Additional prerequisite(s) may be required.
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacy 0 • 4.5
Major requirements for Electronics Technology Computer Electronics ( 54.5 credit hrs.)

## Courses

ELEC $1000 \quad$ Basic Electricity/Electronics 9.0
ELEC $1010 \quad$ Electronic Devices/Digital Circuits 9.0
ELEC 1100 IT Essentials PC Repair I 4.5
ELEC $1110 \quad$ IT Essentials PC Repair II 4.5
ELEC $1200 \quad$ Cisco Network Fundamentals 9.0
ELEC $1210 \quad$ Cisco Routing 9.0
INFO 1002 Introduction to Information Technology $\quad 4.5$
INFO 1003 Introduction to Computer Programming © 5.0

## Option requirements for Electronics Technology Computer Electronics ( 18.0 credit hrs.)

## Courses

## Select 18.0 credit hours from the following:

## ELEC $2220 \quad$ Cisco LAN Switching

ELEC $2230 \quad$ Cisco Accessing the WAN 9.0
INFO $1110 \quad$ Windows Operating Systems IB $\bullet$ • 4.5
INFO 1111 Linux Operating Systems IB 4.5
INFO 1112 Introduction to IBM i•色 4.5
INFO $1113 \quad$ AIX Operating System 4.5
INFO $1120 \quad$ Windows Operating System IIß
INFO $1121 \quad$ Linux Operating Systems II 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in computer electronics after two years of full-time study.

| First Year |  |  |
| :---: | :---: | :---: |
| First quarter |  |  |
| ELEC 1100 | IT Essentials PC Repair I | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{-1}$ | 4.5 |
|  | ENGL level I | 4.5 |
| Second quarter |  |  |
| ELEC 1110 | IT Essentials PC Repair II | 4.5 |
|  | English level II | 4.5 |
| INFO 1002 | Introduction to Information Technology ${ }_{\text {© }}$ | 4.5 |
| Third quarter |  |  |
| ELEC 1000 | Basic Electricity/Electronics | 9.0 |
| INFO 1003 | Introduction to Computer Programming $\mathcal{B}$ © | 5.0 |
| Fourth quarter |  |  |
| ELEC 1010 | Electronic Devices/Digital Circuits | 9.0 |
| HMRL 1010 | Human Relations Skills $\bigcirc$ | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| ELEC 1200 | Cisco Network Fundamentals | 9.0 |
| MATH |  | 5.0 |
| Sixth quarter |  |  |
| ELEC 1210 | Cisco Routing | 9.0 |
|  | Social science | 4.5 |
| Seventh quarter |  |  |
|  | Elective(s) | 9.0 |
| Eighth quarter |  |  |
|  | Elective(s) | 9.0 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

Electronics Technology - Cisco Networking
(ELCCO)
Award: Certificate of achievement
Program location: South Omaha Campus
This certificate provides an intensive study of Cisco networking systems. Successful completion enables students to gain employment in the networking industry.

## Graduation Requirements

General education 13.5
Major requirements 40.5
Total credit hours required 54.0
General education requirements ( 13.5 credit hrs.) Communications

English level I
See Communications course options (p. 25)
Quantitative/numeracy skills
MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B
Other
INFO 1001 Information Systems and Literacy © 4.5
Major requirements for Electronics Technology - Cisco Networking ( 40.5 credit hrs.)

## Courses

ELEC 1200 Cisco Network Fundamentals 9.0
ELEC $1210 \quad$ Cisco Routing 9.0
ELEC $2220 \quad$ Cisco LAN Switching 9.0
ELEC $2230 \quad$ Cisco Accessing the WAN 9.0
INFO $1110 \quad$ Windows Operating Systems I- $\bullet$ • 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in Cisco networking after one year of full-time study.
First Year

| First quarter |  |  |
| :---: | :---: | :---: |
| ELEC 1200 | Cisco Network Fundamentals | 9. |
| INFO 1001 | Information Systems and Literacy ${ }^{(1)}$ | 4.5 |
| Second quarter |  |  |
| ELEC 1210 | Cisco Routing | 9. |
| INFO 1110 | Windows Operating Systems 1-® | 4. |
| Third quarter |  |  |
| ELEC 2220 | Cisco LAN Switching | 9. |
|  | English level I | 4.5 |
| Fourth quarter |  |  |
| ELEC 2230 | Cisco Accessing the WAN | 9.0 |
| MATH 1310 | Intermediate Algebra $\sim^{*}$ | 4.5 |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Electronics Technology - Microcomputer Repair (ELMCO)

Award: Certificate of achievement
Program location: South Omaha Campus
This certificate provides an introduction to basic electrical and electronic circuits and devices with emphasis on microcomputer parts and systems. It enables students to enter company training programs and assist certified electronics technicians. Upon successful completion, students may work toward the Electronics Technology associate degree.

## Graduation Requirements

| General education | 13.5 |
| :--- | :--- |
| Major requirements | 22.5 |
| Option requirements | 18.0 |
| Total credit hours required | 54.0 |

General education requirements ( 13.5 credit hrs.) Communications

English level I
See Communications course options (p. 25)
Quantitative/Numeracy Skills
MATH $1310 \quad$ Intermediate Algebraß 3.5
Other
INFO 1001 Information Systems and Literacy ©
Major requirements for Electronics Technology -
Microcomputer Repair ( 22.5 credit hrs.)

## Courses

ELEC 1100
IT Essentials PC Repair I
ELEC 1110 IT Essentials PC Repair II 4.5
ELEC $1200 \quad$ Cisco Network Fundamentals 9.0
INFO $1110 \quad$ Windows Operating Systems IB

## Option requirements for Electronics Technology Microcomputer Repair (18.0 credit hrs.)

## Courses

ELEC $1000 \quad$ Basic Electricity/Electronics 9.0
ELEC $1010 \quad$ Electronic Devices/Digital Circuits 9.0

## Curriculum Plan

Below is a suggested guide for students planning careers in microcomputer repair after one year of full-time study.

| First Year |  |  |
| :--- | :--- | ---: |
| First quarter |  | 4.5 |
| ELEC 1100 | IT Essentials PC Repair I | 4.5 |
|  | English level I | 4.5 |
| INFO 1001 | Information Systems and Literacy © |  |
| Second quarter |  | 9.0 |
| ELEC 1000 | Basic Electricity/Electronics | 4.5 |
| ELEC 1110 | IT Essentials PC Repair II |  |
| Third quarter |  | 9.0 |
| ELEC 1010 | Electronic Devices/Digital Circuits | 4.5 |
| INFO 1110 | Windows Operating Systems I? |  |
| Fourth quarter |  | 9.0 |
| ELEC 1200 | Cisco Network Fundamentals | 4.5 |
| MATH 1310 | Intermediate Algebra |  |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Cisco Certified Network Associate (ECASD)

Award: Career certificate
Program location: South Omaha Campus
This career certificate allows students to sit the certification exam for the Cisco Certified Network Associate.

## Requirements for Cisco Certified Network Associate career certificate ( 36.0 credit hrs.)

## Courses

ELEC 1200 Cisco Network Fundamentals 9.0
ELEC $1210 \quad$ Cisco Routing 9.0
ELEC 2220 Cisco LAN Switching 9.0
ELEC 2230 Cisco Accessing the WAN 9.0

## Information Technology

Degree: Associate in Applied Science
Information Technology
Information Technology - Data Center Management
Information Technology - Database Administration
Information Technology - Desktop Support Specialist
Information Technology - Embedded Systems
Information Technology - Programming for Database/Web
Information Technology - Server Administration
Information Technology - Web Development
Certificate of Achievement:
Information Technology - Data Center Technician
Information Technology - Security Technician
Information Technology - Server Technician
Information Technology - Web Author

## Information Technology (INTAS)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, 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, help desk, database, web design, and computer programming fields.

## Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 45.0 |
| Total credit hours required | $\mathbf{1 0 4 . 0 - 1 0 4 . 5}$ |

## General education requirements ( $27.0-27.5$ credit hrs.)

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

## Communications

| English level I | 4.5 |
| :--- | :--- |
| English level II | 4.5 |

See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/Numeracy Skills
Select one course from the following:
MATH $1220 \quad$ Business Mathematics-色 4.5
MATH $1420 \quad$ College Algebra $\because \quad 5.0$
MATH 1420: Students transferring to a four-year institution must take this course. Additional prerequisite(s) may be required.
Other
HMRL $1010 \quad$ Human Relations Skills $\circlearrowleft$ • 4.5
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5

## Major requirements for Information Technology (32.0 credit hrs.)

## Courses

INFO 1002 Introduction to Information Technology © 4.5
INFO 1003 Introduction to Computer Programming $\bigcirc$ • 5.0
INFO $1023 \quad$ Networking Essentials $\bigcirc$ © 4.5
INFO $1110 \quad$ Windows Operating Systems I•® $\quad 4.5$
INFO 1111 Linux Operating Systems I-B 4.5
INFO 1311 Web Page Creation $\bullet$ © 4.5
INFO 1620 Introduction to Database Design $\because$ © 4.5

## Option requirements for Information Technology (45.0 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 (45.0 credit hrs.)
Information Technology - Data Center Management (ITDCO) (p. 126)
Database Administration ( 45.0 credit hrs.)
Information Technology - Database Administration (ITDAO) (p. 127)
Desktop Support Specialist ( 45.0 credit hrs.)
Information Technology - Desktop Support Specialist (ITDS1) (p. 127)
Embedded Systems (45.0 credit hrs.)
Information Technology _Embedded Systems Technology (ITESO) (p. 128)
Programming for Database/Web ( 45.0 credit hrs.)
Information Technology - Programming for Database/Web (ITDWO) (p. 129)

## Server Administration (45.0 credit hrs.)

Information Technology - Server Administration (ITSAO) (p. 129)
Web Development ( 45.0 credit hrs.)
Information Technology - Web Development (ITWDO) (p. 130)
Students who complete an Associate in Applied Science in Information
Technology at MCC have completed the major requirements for Bellevue
University. Students need to take at least 30.0 semester hours at Bellevue and can take additional coursework at MCC toward their Bellevue University degree.

## Information Technology - Data Center Management (ITDCO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Fremont Area Center, Online
Data centers are a critical part of today's data processing world. This degree familiarizes students with the physical components, design, management, support, and operations of a data center. Students learn about the data center infrastructure, creating a server environment to meet specific needs, and daily operations of data center activities.

## Graduation Requirements

General education 27.0-27.5

Major requirements 32.0
Option requirements 45.0
Total credit hours required 104.0-104.5

## General education requirements

See General education requirements for Information Technology (p. 126)
Major requirements for Information Technology
See Major requirements for Information Technology (p. 126)
Option requirements for Information Technology - Data Center Management ( 45.0 credit hrs.)

Courses
INFO $1009 \quad$ Introduction to Cloud Computing $\begin{aligned} & \text { B }\end{aligned} .5$
INFO 1401 Introduction to Data Center Management®ß 4.5
INFO 1411 IT Troubleshooting and Recovery $\quad 4.5$
INFO $1421 \quad$ Cloud Infrastructure and Services Monitoring 4.5
INFO 1431 Data Center Physical Design $3 \quad 4.5$
INFO 2351 Introduction to XMLও
INFO 2362 Building Secure Environments - B 4.5
INFO $2401 \quad$ Applied Data Center Management 4.5
INFO 2808 Boundary Protection 3 B 4.5
INFO $2990 \quad$ Data Center Management Internship $\mathcal{B} \quad 4.5$
INFO 1421: Additional prerequisite(s) may be required.

## Curriculum Plan

Below is a suggested guide for students planning careers in data center management after two years of full-time study.

## First Year

First quarter

|  | English level I | 4.5 |
| :--- | :--- | :--- |
| INFO 1001 | Information Systems and Literacy* | 4.5 |

INFO 1003
Information Systems and Literacy $\quad$ ©
4.5

Introduction to Computer Programming $\mathcal{B}$ ©
5.0

Second quarter
INFO 1002
INFO 1110
Introduction to Information Technology-
4.5

Windows Operating Systems 1 ©
Introduction to Database Design 4.5

English level II
4.5

INFO 1023 Networking Essentials $\smile$ © 4.5
INFO 1401 Introduction to Data Center Management®ß 4.5

| Fourth quarter |  |  |
| :---: | :---: | :---: |
| INFO 1009 | Introduction to Cloud Computing ${ }^{\text {B }}$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\checkmark$ | 4.5 |
| INFO 1311 | Web Page Creation $\sim^{*}$ © | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 1111 | Linux Operating Systems IB | 4.5 |
| INFO 1411 | IT Troubleshooting and Recovery ${ }^{\text {o }}$ | 4.5 |
| INFO 2351 | Introduction to XML ® $^{\text {c }}$ | 4.5 |
| Sixth quarter |  |  |
| INFO 1421 | Cloud Infrastructure and Services Monitoring | 4.5 |
| INFO 2362 | Building Secure Environments $\checkmark$ ¢ | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Seventh quarter |  |  |
| INFO 1431 | Data Center Physical Design ${ }_{\text {B }}$ | 4.5 |
| INFO 2401 | Applied Data Center Management | 4.5 |
| INFO 2808 | Boundary Protection $\sim_{\text {B }}$ | 4.5 |
| Eighth quarter |  |  |
| INFO 2990 | Data Center Management Internship ${ }_{\text {B }}$ | 4.5 |
|  | Humanities/social science elective | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology - Database <br> Administration (ITDAO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus, Sarpy Center, Online
Databases are the core of today's information systems and comprise one of the fastest growing areas of the information technology field. This degree provides students with a strong technical foundation in the design, implementation, and administration of a relational database system.

## Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 45.0 |

## General education requirements

See General education requirements for Information Technology (p. 126)

## Major requirements for Information Technology

See Major requirements for Information Technology (p. 126)

## Option requirements for Information Technology Database Administration ( 45.0 credit hrs.)

## Courses

INFO 1009 Introduction to Cloud Computing 4.5
INFO $1011 \quad$ Project Management - B 4.5
INFO 2351 Introduction to XML $\uplus$ © 4.5
INFO 2621 IBM i DB2 Database Management 4.5
INFO 2630 Structured Query Language (SQL) 3.5
INFO 2635 MySQL Programming - - 4.5
INFO 2641 SQL Server Design and Implementation 3 B 4.5
INFO $2940 \quad$ Database and Web Programming 4.5

INFO 2940 is required for this program; it is the last course to be taken.

| Select 9.0 credit hours from the following: |  |  |
| :--- | :--- | :--- |
| INFO 1401 | Introduction to Data Center Management® | 4.5 |
| INFO 2538 | Systems Analysis and Design | 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 |

## Curriculum Plan

Below is a suggested guide for students planning careers in database administration after two years of full-time study.

## First Year

First quarter

|  | English level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy $\sim_{0}$ © | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\bigcirc$ © | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{\text {© }}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems 1 B | 4.5 |
| INFO 1620 | Introduction to Database Design $\sim_{\text {© }}$ | 4.5 |
| Third quarter |  |  |
|  | English level II | 4.5 |
| INFO 1023 | Networking Essentials $\sim_{\text {© }}$ © | 4.5 |
| INFO 1311 | Web Page Creation ${ }^{\text {© }}$ © | 4.5 |
| Fourth quarter |  |  |
| HMRL 1010 | Human Relations Skills $\bigcirc$ © | 4.5 |
| INFO 1011 | Project Management ${ }^{\text {B }}$ | 4.5 |
| INFO 1111 | Linux Operating Systems 1 ® | 4.5 |

Second Year
Fifth quarter
INFO 2351 Introduction to XML $\bigcirc$ © 4.5

INFO $2630 \quad$ Structured Query Language (SQL) © 4.5
INFO 2621
Sixth quarter
INFO 2635 MySQL Programming $-\frac{\bigotimes}{3} 4$
INFO Elective 4.5
MATH Elective 4.5-5.0
Seventh quarter
INFO 2640
INFO 2641
INFO
Eighth quarter
INFO 2940
Database and Web Programming
Capstone $\because$
Humanities/social science elective
4.5

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology - Desktop Support Specialist (ITDS1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, Online
This degree prepares students to successfully install, upgrade, deploy, and configure Windows operating systems. Students gain a strong technical foundation in monitoring and maintaining software, security features, and network connectivity

## Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 45.0 |
| Total credit hours required | $\mathbf{1 0 4 . 0 - 1 0 4 . 5}$ |

## General education requirements

See General education requirements for Information Technology (p. 126)

## Major requirements for Information Technology

See Major requirements for Information Technology (p. 126)

## Option requirements for Desktop Support Specialist ( 45.0 credit hrs.)

## Courses

INFO $1120 \quad$ Windows Operating System IIß $\quad 4.5$
INFO $1240 \quad$ Integrated Applications for IT Support*B 4.5
INFO 1411 IT Troubleshooting and Recovery ${ }^{\text {B }} 4.5$
INFO $1421 \quad$ Cloud Infrastructure and Services Monitoring 4.5
INFO 2261 Software Applications Support®® 4.5
INFO 2351 Introduction to XML $७$ © 4.5
INFO $2362 \quad$ Building Secure Environments $\backsim$ B 4.5
INFO 2808 Boundary Protection 3.5
INFO $2942 \quad$ Network Support Capstone•色 4.5
Select 4.5 credit hours from the following:
ELEC 1100 IT Essentials PC Repair I 4.5
INFO $1805 \quad$ A + Certified Professional 4.5
INFO 2981 Internship Variable

## Curriculum Plan

Below is a suggested guide for students planning careers as desktop support specialists after two years of full-time study.

## First Year

First quarter

|  | ENGL level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\overbrace{\text { © } \text { © }}$ | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{\text {P }}$ © | 4. |
| INFO 1110 | Windows Operating Systems I- | 4.5 |
| INFO 1620 | Introduction to Database Design $\overbrace{\text { © }}$ | 4.5 |
| Third quarter |  |  |
|  | ENGL level II | 4.5 |
| INFO 1023 | Networking Essentials $\bigcirc$ © | 4.5 |
| INFO 1311 | Web Page Creation $\overbrace{\bullet}$ © | 4.5 |
| Fourth quarter |  |  |
| INFO 1120 | Windows Operating System IIß | 4.5 |
| INFO 1411 | IT Troubleshooting and Recovery ${ }^{\text {® }}$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 1111 | Linux Operating Systems I $\mathcal{B}$ | 4. |
| INFO 1240 | Integrated Applications for IT Support* | 4.5 |
| INFO 2351 | Introduction to XML $\underbrace{(1)}$ | 4.5 |
| Sixth quarter |  |  |
| INFO 2261 | Software Applications Support* | 4.5 |
| INFO 1421 | Cloud Infrastructure and Services Monitoring | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Seventh quarter |  |  |
| INFO 2362 | Building Secure Environments $\sim$ ¢ | 4.5 |
| INFO 2808 | Boundary Protection $\sim$ | 4. |
| Eighth quarter |  |  |
|  | Elective | 4.5 |
|  | Humanities/social science elective | 4.5 |
| INFO 2942 | Network Support Capstone ${ }^{\text {B }}$ | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology - Embedded Systems Technology (ITESO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

Virtually every electronic device designed and manufactured today is an embedded system. This degree provides students with the knowledge of embedded systems design and programming in relation to the latest technologies. Career options center on companies focused on processors.

Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 45.0 |
| Total credit hours required | $104.0-104.5$ |
|  |  |
| General education requirements |  |
| The general education requirements for this certificate program exceed the |  |
| minimum standard number of hours. For more information, contact Student |  |
| Services. |  |
| See General education requirements for Information Technology (p. 126) |  |

## Major requirements for Information Technology

See Major requirements for Information Technology (p. 126)
Option requirements for Information Technology -
Embedded Systems Technology ( 45.0 credit hrs.)
Courses
INFO $1009 \quad$ Introduction to Cloud Computing $\begin{aligned} \text { B } & 4.5\end{aligned}$
INFO $1120 \quad$ Windows Operating System IIB 4.5
INFO 1121 Linux Operating Systems II 4.5
INFO $1515 \quad$ Programming for Robotics 4.5
INFO 1521 Java Programming l- 4.5
INFO 1526 C\# (C-Sharp) Programming IB 4.5
INFO $2439 \quad$ Mobile Application Development 4.5
INFO 2947 Embedded Systems Capstone 4.5
Select 9.0 credit hours from the following:
ELEC $1300 \quad$ Radio Frequency Identification (RFID)
$\begin{array}{lll}\text { ELEC } 1300 & \text { Radio Frequency Identification (RFID) } & 4.5 \\ \text { INCT } 2231 & \text { Programmable Logic Controllers I } & 4.5\end{array}$
INCT $2232 \quad$ Programmable Logic Controllers II 4.5
INCT 2235 Programmable Logic Controllers Applications 9.0
INFO 1112 Introduction to IBM i- 3
INFO 1531 Java Programming IIB 4.5
INFO 1536 C\# (C-Sharp) Programming II® 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in embedded systems technology after two years of full-time study.

## First Year

First quarter

|  | English level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy ${ }^{-3}$ © | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\mathcal{B}$ © | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{\text {© }}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems I-® | 4.5 |
| INFO 1620 | Introduction to Database Design $\sim_{*}$ © | 4.5 |
| Third quarter |  |  |
|  | English level II | 4.5 |
| INFO 1023 | Networking Essentials $\uparrow$ © | 4.5 |
| INFO 1311 | Web Page Creation $\sim^{(1)}$ | 4.5 |


| Fourth quarter |  |  |
| :---: | :---: | :---: |
| HMRL 1010 | Human Relations Skills $\bigcirc$ | 4.5 |
| INFO 1009 | Introduction to Cloud Computing ${ }^{\text {® }}$ | 4.5 |
| INFO 1111 | Linux Operating Systems İ | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 1120 | Windows Operating System IIT | 4.5 |
| INFO 1515 | Programming for Robotics | 4.5 |
| INFO 2439 | Mobile Application Development | 4.5 |
| Sixth quarter |  |  |
| INFO 1121 | Linux Operating Systems II | 4.5 |
| INFO 1521 | Java Programming Io | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Seventh quarter |  |  |
| INFO 1526 | C\# (C-Sharp) Programming İB | 4.5 |
|  | Option | 4.5 |
|  | Option | 4.5 |
| Eighth quarter |  |  |
| INFO 2947 | Embedded Systems Capstone | 4.5 |
|  | Humanities/social science elective | 4.5 |

## Information Technology - Programming for Database/Web (ITDWO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, Online
This degree option provides students with a strong foundation in program design, Web programming and design, and database processing that is needed in today's business world. Students gain experience in databases, Web design, and programming languages.

## Graduation Requirements

General education
Major requirements
Option requirements
Total credit hours required
General education requirements
27.0-27.5
32.0
45.0
104.0-104.5

## General education requirements

See General education requirements for Information Technology (p. 126)

## Major requirements for Information Technology

See Major requirements for Information Technology (p. 126)
Option requirements for Information Technology Programming for Database/Web ( 45.0 credit hrs.)
Students must take two programming language options, level I and level II courses.

Option 1:
INFO 1521
Java Programming I $\beta$
4.5

INFO 1531
Java Programming II丹
Option 2:
INFO 1522
INFO 1532
C++ Programming I-4.5

Option 3:
INFO 1523
INFO 1533
Visual Basic.NET I-

Option 4:
INFO 1526
INFO 1536
Also required:
INFO 2351
Introduction to XML •• 4.5
INFO 2630 Structured Query Language (SQL)* 4.5

INFO 2635 MySQL Programming -3 4.5
INFO $2940 \quad$ Database and Web Programming 4.5
Capstone -3
INFO 2940 is required for the degree; however, it is the last course taken.
Select 9.0 credit hours from the following:
INFO $1009 \quad$ Introduction to Cloud Computing-B

INFO $1011 \quad$ Project Management $\triangleleft$ B $\quad 4.5$
INFO $1401 \quad$ Introduction to Data Center Management $\because \ominus \quad 4.5$
INFO 2439 Mobile Application Development 4.5
INFO 2538 Systems Analysis and Design $3 \quad 4.5$

## Curriculum Plan

Below is a suggested guide for students planning careers in programming for database/Web after two years of full-time study.
First Year

| First quarter |  |  |
| :---: | :---: | :---: |
|  | English level I | 4.5 |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ ( | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\bigcirc$ © | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{(1)}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems 1-® | 4.5 |
| INFO 1620 | Introduction to Database Design $\bigcirc$ | 4.5 |
| Third quarter |  |  |
|  | English level II | 4.5 |
| INFO 1023 | Networking Essentials $\bigcirc$ © | 4.5 |
| INFO 1311 | Web Page Creation ${ }_{\text {© }}$ | 4.5 |
| Fourth quarter |  |  |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
|  | Programming level I | 4.5 |
| INFO | Elective | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 2351 | Introduction to XML B $^{\text {c }}$ | 4.5 |
| INFO 2630 | Structured Query Language (SQL)* | 4.5 |
|  | Programming level II | 4.5 |
| Sixth quarter |  |  |
| INFO 2635 | MySQL Programming ® $^{\text {a }}$ | 4.5 |
|  | Programming level I | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Seventh quarter |  |  |
|  | Programming level II | 4.5 |
| INFO | Elective | 4.5 |
|  | Humanities/social science elective | 4.5 |
| Eighth quarter |  |  |
| INFO 2940 | Database and Web Programming Capstone -3 | 4.5 |
| HMRL 1010 | Human Relations Skills $\bigcirc_{\text {© }}$ | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology - Server Administration (ITSAO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online
This degree prepares students to successfully implement, configure, and maintain a Windows server in the Active Directory environment of large companies.
Students gain a strong technical foundation in monitoring and managing a network infrastructure.

Graduation Requirements

| General education | $27.0-27.5$ |
| :--- | :--- |
| Major requirements | 32.0 |
| Option requirements | 45.0 |
| Total credit hours required | $104.0-104.5$ |

## General education requirements

See General education requirements for Information Technology (p. 126)

## Major requirements for Information Technology

See Major requirements for Information Technology (p. 126)

## Option requirements for Information Technology Server Administration ( 45.0 credit hrs.)

## Courses

INFO $1120 \quad$ Windows Operating System IIß 4.5
INFO 1411 IT Troubleshooting and Recovery ${ }^{\text {B }} \quad 4.5$
INFO $1421 \quad$ Cloud Infrastructure and Services Monitoring 4.5
INFO $2135 \quad$ Network Infrastructure $\beta$ B 4.5
INFO $2142 \quad$ Windows Active Directory 3
INFO $2145 \quad$ Windows Server Administration 3 B 4.5
INFO 2351 Introduction to XML丹 © 4.5
INFO $2362 \quad$ Building Secure Environments $\triangleleft$ ® 4.5
INFO $2805 \quad$ Network and Information Security Basics - B 4.5
INFO $2942 \quad$ Network Support Capstone・ヨ 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in server administration after two years of full-time study.
First Year
First quarter
INFO 1001
INFO 1003
Second quarter
INFO 1002
INFO 1110
INFO 1620
Third quarter

INFO 1023
INFO 1311
Fourth quarter
INFO 1120
INFO 1411
HMRL 1010
Second Year
Fifth quarter
INFO 1111
INFO 2135
INFO 2351
Sixth quarter
INFO 1421
INFO 2142
MATH
Seventh quarter
INFO 2145
INFO 2362
INFO 2805
Eighth quarter
INFO 2942

English level I 4.5
Information Systems and Literacy © 4.5
Introduction to Computer Programming $\mathcal{\bullet}$ © 5.0
Introduction to Information Technology $\bullet$ © 4.5
Windows Operating Systems IB © 4.5
Introduction to Database Design 3.5

ENGL level II 4.5
Networking Essentials $\quad 4.5$
Web Page Creation © 4.5
Windows Operating System IIß $\quad 4.5$
IT Troubleshooting and Recovery-3 4.5
Human Relations Skills $\because$ © 4.5

Linux Operating Systems IB 4.5
Network Infrastructure - B 4.5
Introduction to XML $\quad 4.5$
Cloud Infrastructure and Services Monitoring 4.5
Windows Active Directory ${ }^{\circ}$ 4.5
Elective 4.5-5.0
Windows Server Administration $\because 3.5$
Building Secure Environments $\checkmark$ $\neg-5$
Network and Information Security Basics 4.5
Network Support Capstone 3.5
Humanities/social science elective 4.5

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology - Web Development (ITWDO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree prepares students to successfully manage the World Wide Web environment. Students are 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 | 32.0 |
| Option requirements | 45.0 |
| Total credit hours required | $104.0-104.5$ |
| General education requirements |  |
| See General education requirements for Information Technology (p. 126) |  |
| Major requirements for Information Technology |  |
| See Major requirements for Information Technology (p. 126) |  |
| Option requirements for Information Technology - Web |  |
| Development (45.0 credit hrs.) |  |

Courses
INFO 1314 Photoshop $\begin{array}{ll}\text { B } & 4.5\end{array}$
INFO $1315 \quad$ Interface Design $\because \because \quad 4.5$
INFO 1316 Dreamweaver $\begin{array}{lll}\text { B } & 4.5\end{array}$
INFO $2340 \quad$ Internet Scripting 4.5
INFO 2351 Introduction to XML $\checkmark$ • 4.5
INFO $2362 \quad$ Building Secure Environments $\smile$ © 4.5
INFO $2439 \quad$ Mobile Application Development 4.5
INFO $2750 \quad$ Introduction to Web Application 4.5
$\begin{array}{ll}\text { Development } \smile \ominus & 4.5 \\ \text { Web Development Capstoneß }\end{array}$
INFO $2944 \quad$ Web Development Capstone-ß 4.5
Select one of the following courses:
DIMA $1120 \quad$ Digital Design: Vector
INFO 1319 Flash 4.5
INFO 1521 Java Programming IB 4.5
INFO $2630 \quad$ Structured Query Language (SQL)B $\quad 4.5$
INFO 2900 Special Topics in Information Technology variable
INFO 2981 Internship variable

## Curriculum Plan

Below is a suggested guide for students planning careers in Web development after two years of full-time study.
First Year
First quarter

|  | ENGL level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy- | 4.5 |
| INFO 1003 | Introduction to Computer Programming $\bigcirc$ © | 5.0 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }^{\text {® }}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems I-B | 4.5 |
| INFO 1620 | Introduction to Database Design $\sim^{\text {© }}$ | 4.5 |
| Third quarter |  |  |
|  | ENGL level II | 4.5 |
| INFO 1023 | Networking Essentials $\bullet$ © | 4.5 |
| INFO 1311 | Web Page Creation | 4.5 |


| Fourth quarter |  |  |
| :---: | :---: | :---: |
| HMRL 1010 | Human Relations Skills $\smile$ © | 4.5 |
| INFO 1111 | Linux Operating Systems İ* | 4.5 |
| INFO 1315 | Interface Design ${ }^{\text {B }}$ | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 1314 | Photoshop ${ }^{\text {B }}$ | 4.5 |
| INFO 2351 |  | 4.5 |
| MATH | Elective | 4.5-5.0 |
| Sixth quarter |  |  |
|  | Elective | 4.5 |
| INFO 1316 | Dreamweaver ${ }^{\text {B }}$ | 4.5 |
| INFO 2340 | Internet Scripting | 4.5 |
| Seventh quarter |  |  |
| INFO 2439 | Mobile Application Development | 4.5 |
| INFO 2362 | Building Secure Environments $\mathcal{*}$ | 4.5 |
| INFO 2750 | Introduction to Web Application Development | 4.5 |
| Eighth quarter |  |  |
| INFO 2944 | Web Development Capstone $-\frac{B}{}$ | 4.5 |
|  | Humanities/social science elective | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Information Technology Technician (ITTCE)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, Online

Microcomputers have become an integral part of today's office and home environment. This certificate of achievement prepares students with the skills 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 (18.0-18.5 credit hrs.)

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

## Communications

English level I
See Communications course options (p. 25)
Humanities/social sciences
Humanities/social sciences 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/numeracy skills
Select one course from the following:
MATH $1220 \quad$ Business Mathematics $\backsim$ © 4.5

MATH $1420 \quad$ College Algebra $\checkmark$ $\quad 5.0$
MATH 1420: Students transferring to a four-year institution must take this course. Additional prerequisite(s) may be required.
Other
INFO 1001
Information Systems and Literacy ${ }^{-}$©
4.5

## Major requirements for Information Technology Technician ( 13.5 credit hrs.)

Courses
INFO 1002 Introduction to Information Technology•『 4.5
INFO $1110 \quad$ Windows Operating Systems IB® 4.5
INFO 1311 Web Page Creation $\bullet$ © 4.5

## Option requirements for Information Technology Technician (18.0-23.0 credit hrs.)

The Information Technology Technician options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.
Data Center Technician ( 23.0 credit hrs.)
Information Technology - Data Center Technician (ITCCO) (p. 131)
Security Technician ( 22.5 credit hrs.)
Information Technology - Security Technician (ITSTO) (p. 132)
Server Technician ( 22.5 credit hrs.)
Information Technology - Server Technician (ITSRO) (p. 132)
Web Author ( $\mathbf{1 8 . 0}$ credit hrs.)
Information Technology - Web Author (ITWCO) (p. 133)

## Information Technology - Data Center Technician (ITCCO)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Fremont Center, Online
This certificate of achievement provides students with an introduction to data center operations. Students learn 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

See General education requirements for Information Technology Technician (p. 131)

## Major requirements for Information Technology Technician <br> See Major requirements for Information Technology Technician (p. 131)

## Option requirements for Information Technology - Data Center Technician ( 23.0 credit hrs.)

## Courses

INFO 1003 Introduction to Computer Programming $\quad$ © ${ }^{\text {© }}$
INFO $1023 \quad$ Networking Essentials $\checkmark$ © 4.5
INFO 1401 Introduction to Data Center Management-® 4.5
INFO 1411 IT Troubleshooting and Recovery ${ }^{\text {B }} \quad 4.5$
INFO $1421 \quad$ Cloud Infrastructure and Services Monitoring 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers as data center technicians after one year of full-time study.
First Year
First quarter

Second quarter

Third quarter
INFO 1023
INFO 1311
INFO 1401

INFO 1002 Introduction to Information Technology $\bullet$ © 4.5
INFO 1003 Introduction to Computer Programming $\smile$ © 3.0
INFO $1110 \quad$ Windows Operating Systems I- $\bullet$ • 4
ENGL level I
4.5
Information Systems and Literacy - © 4.5
4.5-5.0

| Fourth quarter |  |  |
| :--- | :--- | :--- |
| INFO 1411 | IT Troubleshooting and Recovery | 4.5 |
| INFO 1421 | Cloud Infrastructure and Services Monitoring | 4.5 |
|  | Humanities/social science elective | 4.5 |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Information Technology - Security Technician (ITSTO)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Sarpy Center, Online
This certificate of achievement emphasizes the issues and emerging information and management concepts related to computer security. Students are 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

See General education requirements for Information Technology Technician (p. 131)

## Major requirements for Information Technology Technician

See Major requirements for Information Technology Technician (p. 131)

## Option requirements for Information Technology Security Technician ( 22.5 credit hrs.)

## Courses

INFO 2362 Building Secure Environments-® 4.5
INFO $2805 \quad$ Network and Information Security Basics $\mathcal{3}$ - 4.5
INFO 2806 Network Attacks, Intrusions, and Penetration 4.5
INFO $2808 \quad$ Boundary Protection $\smile$ 4.5
INFO $2809 \quad$ Information Systems, Forensics, and Legal 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers as security technicians after one year of full-time study.
First Year
First quarter
INFO 1001 Information Systems and Literacy $\bigcirc$ © 4.5
INFO 1110

## Second quarter

INFO 1002
INFO 1311
INFO 2805
Third quarter
MATH
INFO 2362
INFO 2806

Fourth quarter
INFO 2808
INFO 2809

Windows Operating Systems I• © 4.5
ENGL level I 4.5

Introduction to Information Technology $\bullet$ • 4.5
Web Page Creation 3 © 4.5
Network and Information Security Basics $\quad 4.5$

Elective 4.5-5.0
Building Secure Environments $\checkmark \mathcal{\vartheta} \quad 4.5$
Network Attacks, Intrusions, and Penetration 4.5
Testing ${ }^{\text {B }}$

Boundary Protection -3
4.5

Information Systems, Forensics, and Legal 4.5
Topics ${ }^{\checkmark}$
Humanities/social science elective 4.5

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Information Technology - Server Technician (ITSRO)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Sarpy Center, Online
Servers have become an integral part of today's office and home environment. This certificate of achievement 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

See General education requirements for Information Technology Technician (p. 131)

## Major requirements for Information Technology Technician

See Major requirements for Information Technology Technician (p. 131)
Option requirements for Information Technology Server Technician ( 22.5 credit hrs.)

## Courses

INFO $1023 \quad$ Networking Essentials $\bullet$ © 4.5
INFO $1120 \quad$ Windows Operating System II-B 4.5
INFO $2135 \quad$ Network Infrastructure $\smile$ B 4.5
INFO $2142 \quad$ Windows Active Directory ${ }^{\text {B }} 4.5$
Select one course from the following:
INFO 1411 IT Troubleshooting and Recovery 1 B 4.5
INFO $1421 \quad$ Cloud Infrastructure and Services Monitoring 4.5
INFO $2145 \quad$ Windows Server Administration $\uparrow$ B 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers as server technicians after one year of full-time study.
First Year
First quarter
INFO 1001 Information Systems and Literacy © © 4.5

Second quarter Introduction to Information Technologyse
INFO 1002
INFO $1110 \quad$ Windows Operating Systems Iß © 4.5
INFO 1311 Web Page Creation ${ }^{-1}$ © 4.5
Third quarter

INFO 1023
Networking Essentials $\quad 4.5$
INFO $1120 \quad$ Windows Operating System II-色 4.5
Fourth quarter
INFO 2135
Network Infrastructure - - 4.5
Windows Active Directory 4.5
Elective 4.5
The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Information Technology - Web Author (ITWCO)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Sarpy Center, Online
This certificate of achievement prepares students to successfully create and edit information in the World Wide Web environment. Students are 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 | $\mathbf{4 9 . 5 - 5 0 . 0}$ |

## General education requirements

See General education requirements for Information Technology Technician (p. 131)

## Major requirements for Information Technology Technician

See Major requirements for Information Technology Technician (p. 131)

## Option requirements for Information Technology - Web Author ( 18.0 credit hrs.)

## Courses

INFO 1314 Photoshop 3.5
INFO 1315 Interface Design•3 4.5
INFO 1316 Dreamweaver®B 4.5
INFO 2340 Internet Scripting 4.5
INFO 2340: Additional prerequisite(s) may be required.

## Curriculum Plan

Below is a suggested guide for students planning careers as web authors after one year of full-time study.

## First Year

| First quarter |  |  |
| :---: | :---: | :---: |
| INFO 1001 | Information Systems and Literacy ${ }^{\text {® }}$ © | 4. |
|  | Humanities/social science elective | 4.5 |
|  | English level I | 4.5 |
| Second quarter |  |  |
| INFO 1002 | Introduction to Information Technology ${ }_{\text {B }}$ © | 4.5 |
| INFO 1110 | Windows Operating Systems I- | 4.5 |
| INFO 1311 | Web Page Creation ${ }^{\text {© }}$ | 4.5 |
| Third quarter |  |  |
| MATH | Elective | 4.5-5.0 |
| INFO 1314 | Photoshop ${ }^{\text {B }}$ | 4. |
| INFO 1315 | Interface Design $\uplus_{\text {® }}$ | 4.5 |
| Fourth quarter |  |  |
| INFO 1316 | Dreamweaver ${ }^{\text {© }}$ | 4.5 |
| INFO 2340 | Internet Scripting | 4.5 |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Health Technology

## Healthcare Information and Administration (HCIA)

Graduates of the Healthcare Information and Administration program are prepared to work in health information management in organizations that create, manage, and utilize health information. Their roles include clinical coder, data analyst, cancer registrar, and electronic health record specialist (see chart below for additional information). This program leads to completion of the associate in applied science degree. The program combines online instruction, online practical activities, and an in-person practicum experience to prepare students for entrylevel employment in the health information field.
The HCIA program is in candidacy status, pending accreditation review by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
Degree: Associate in Applied Science
Healthcare Information and Administration

## Health Information Management Systems (HIMS)

This degree meets 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.

## Degree: Associate in Applied Science

Health Information Management Systems - Medical Coding and Billing
Health Information Management Systems - Medical Office Management
Health Information Management Systems - Language Specialist II
Certificate of Achievement:
Medical Office
Medical Office - Coding and Billing Assistant
Medical Office - Medical Office Assistant
Medical Office - Language Specialist

## Health Information Technology Professional (HITP)

The implementation, configuration, and support of health information systems are vital in today's healthcare industry. This program instructs students on the management of health IT systems, quality improvement through meaningful use of health information technology, security and exchange of protected health information, and the creation of administrative efficiencies through these systems. Students completing this degree are prepared to work as health IT specialists in a clinical or acute care setting.

## Degree: Associate in Applied Science

Health Information Technology Professional
Career Certificate:
Health Information Technology
I

Program Differences

|  | Healthcare Information and Administration (HCIA) | Health Information Management Systems (HIMS) | Health Information Technology Professional (HITP) |
| :---: | :---: | :---: | :---: |
| Focus | Management and use of health information in organizations across the continuum of health care, from preventive to chronic long term | Manage staff and/or systems used to collect, store, retrieve, and communicate healthcare data that are used for the planning, delivery, reimbursement, protection, and evaluation of patient care in the physician practice arena | Implementation, configuration, and support of health IT systems; quality improvement through meaningful use of health information technology; security and exchange of protected health information |
| Potential Credential | Certified Coding Specialist - CCS Certified Tumor Registrar -- CTR Certified Health Data Analyst (CHDA) Certified Document Improvement Practitioner (CDIP) | Certified Professional Coder (CPC)Certified Professional Coder -- Hospital (CPS-H) Certified Professional Coder -- Payer (CPC-P) Registered Medical Transcriptionist (RMT) Certified Medical Transcriptionist (CMT) | Certified Professional in Health Information <br> Technology (CPHIT)Certified Professional in Health Information Exchange (CPHIE) <br> Certified Professional in Electronic Health Records (CPEHR) <br> Health Information Technology Professional (HIT Pro) <br> CompTIA Healthcare IT |
| Title Samples | Health data analyst <br> Clinical coder <br> Clinical documentation specialist <br> Document improvement specialist <br> Cancer registrar <br> Reimbursement specialist <br> Release of information specialist <br> Compliance specialist <br> EHR super user <br> Revenue cycle coordinator <br> Performance improvement analyst | Coder and biller <br> Outpatient coder <br> Reimbursement specialist <br> Medical office manager <br> Medical transcriptionist <br> Voice recognition editor | Health IT specialist Implementation manager Implementation support specialist Workflow redesign specialist Technical/software support specialist Software trainer Network security analyst Database technician Meaningful use specialist |
| Employer | Hospitals, physician practices, outpatient clinics, health insurers, long term care facilities, release of information companies, EHR vendors | Physician practice, ambulatory surgery center, clinics, insurance companies, pharmacy billing companies | Hospitals, physician practices, outpatient clinics, regional extension centers, health insurers, long term care facilities, EHR vendors, government agencies, independent consultant |

## Healthcare Information and Administration

Degree: Associate in Applied Science
Health Information and Administration

## Healthcare Information and Administration <br> (HIAAS)

Award: Associate in applied science degree
Program location: Online
This degree meets the growing need for health information management professionals. As the American population ages with a greater need for healthcare and the increased use of information technology in healthcare, the number of positions for health information managers is rapidly increasing. Health information managers are able to speak the language of both healthcare and information technology.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 47.0 |
| Option requirements | $34.5-35.0$ |

## General education requirements ( 27.0 credit hrs.)

## Communications

English level I

4.5

English level II 4.5
Humanities/social sciences
Humanities/social sciences
See Humanities/social sciences course options (p. 25)

## Quantitative/numeracy skills

MATH 1310 Intermediate Algebra $\checkmark$
or higher level MATH course
Other
HMRL 1010 Human Relations Skills $\quad 4.5$
INFO 1001 Information Systems and Literacy © 4.5

## Major requirements for Healthcare Information and

 Administration ( 47.0 credit hrs.)Courses
HCIA $1010 \quad$ Healthcare Delivery Systems $\because$ B 4.5
HCIA $1020 \quad$ Healthcare Data and Electronic Health Records觡 4.5
HCIA $1030 \quad$ Healthcare Data Management and Use -3.5
HCIA 2010 Healthcare Statistics $\checkmark$ B 4.5
HCIA 2020 Health Law, Privacy, and Ethics 3.5
HCIA 2030 Performance Improvement - B 4.5
HCIA $2421 \quad$ Clinical Coding l-⿵ $\quad 4.5$
HCIA $2431 \quad$ Clinical Coding IIB $\quad 4.5$
HCIA $2432 \quad$ Clinical Coding IIIß $\because .5$
HCIA 2982 HCIA Capstone - $\quad 4.5$
HCIA 2983 HCIA Practicum $\begin{aligned} & \text { B } \\ & 2.0\end{aligned}$

## Option requirements for Healthcare Information and Administration (34.5-35.0 credit hrs.)

| Courses |  |  |
| :---: | :---: | :---: |
| BSAD 1600 | Principles of Supervision ${ }^{\text {B }}$ | 4.5 |
| HIMS 1120 | Medical Terminology IVA | 4.5 |
| HIMS 1130 | Medical Terminology IIT | 4.5 |
| HIMS 1180 | Disease Processes ® $^{\text {© }}$ | 4.5 |
| HIMS 1410 | Introduction to Insurance $-\bigcirc$ © | 3.0 |
| HIMS 2155 | Fundamentals of Pharmacology © | 4.5 |
| HITP 2040 | Info Systems in Healthcare ${ }^{\text {B }}$ | 4.5 |
| Select one of the following groups: |  |  |
| BIOS 1310 | Survey of Human Anatomy and Physiology | 5.0 |
| BIOS 1310L | Survey of Human Anatomy and Physiology Lab | 0.0 |
|  | OR |  |
| HIMS 1310 | Introduction to Anatomy and Physiology © | 4.5 |

The HCIA program has special admission requirements.
Visit www.mccneb.edu/hcia for the application packet and information. Direct questions to the director of the HCIA program.

## Health Information Management Systems

Degree: Associate in Applied Science
Health Information Management Systems

- Medical Coding and Billing
- Medical Office Management
- Medical Language Specialist II


## 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 degree meets 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 | 48.0 |
| Option requirements | 21.0-22.5 |
| Total credit hours required | 96.0-97.5 |
| General education requirements (27.0 credit hrs.) |  |
| Communications |  |
| English level I |  |
| English level II |  |
| See Communications course options (p. 25) |  |
| ENGL 1220 and ENGL 1240 are suggested. |  |
| Social sciences |  |
| Select one course from the following: |  |
| ECON 1000 Macroeconomics © |  |
| PSYC 1010 Introduction to Psychology $\bigcirc$ © |  |
| SOCI 1010 Introduction to Sociology B $^{\text {© }}$ |  |
| Quantitative/numeracy skills |  |
| MATH 1220 Business Mathematics ${ }^{\text {B }}$ |  |
| or higher level MATH course |  |
| Other |  |
| HMRL 1010 Human Relations Skills $\bigcirc$ © |  |
| INFO 1001 Information Systems and Literacy- |  |

## Major requirements for Health Information Management Systems (48.0 credit hrs.)

## Courses

HIMS 1111 Healthcare Careers © 4.5
HIMS $1120 \quad$ Medical Terminology Ife 4.5
HIMS 1130 Medical Terminology II? © 4.5
HIMS 1150 Introduction to Medical Law and Ethics $\curvearrowright$ © 4.5
HIMS 1212 Microsoft Word for Medical Office $\checkmark$ © 4.5
HIMS 1310 Introduction to Anatomy and Physiology- $\bullet$ 4.5
HIMS $2110 \quad$ Principles of Management in Healthcare $\bullet$ © 4.5
HIMS 2400 Introduction to Coding and Billing•
HIMS $2980 \quad$ Medical Office Applications $\mathcal{B} \quad 4.5$
HIMS 2981 Internship 4.0
HITP $1115 \quad$ Electronic Health Records (EHR) Lab 4.5
Experience - -

## Option requirements for Health Information Management Systems (21.0-22.5 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 ( 21.0 credit hrs.)
Medical Coding and Billing (HIMC1) (p. 135)
Medical Office Management ( 21.0 credit hrs.)
Medical Office Management (HIMO1) (p. 136)
Medical Language Specialist II (22.5 credit hrs.)
Medical Language Specialist II (HIMLO) (p. 136)

## Medical Coding and Billing (HIMC1)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This degree prepares students for entry-level employment as coding and billing specialists by providing the basic knowledge, understanding, and skills required to work in a medical facility.

## Graduation Requirements

General education 27.0
Major requirements 48.0
Option requirements 21.0
Total credit hours required 96.0

## General education requirements

See General education requirements for Health Information Management Systems (p. 135)

## Major requirements for Health Information Management Systems

See Major requirements for Health Information Management Systems (p. 135)
Requirements for Health Information Management Systems - Medical Coding and Billing option (21.0 credit hrs.)

## Courses

HIMS 1180 Disease Processes
HIMS $1410 \quad$ Introduction to Insurance ${ }^{\bullet}$ © $\quad 3.0$

HIMS $2155 \quad$ Fundamentals of Pharmacology $\bullet$ © 4.5
HIMS 2420 Coding and Billing l- 4.5
HIMS $2430 \quad$ Coding and Billing IIT © 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in a medical office after two years of full-time study.

## First Year

First quarter
HIMS 1
Healthcare Careers
INFO 1001
Second quarter

HIMS 1120
HIMS 1150
Third quarter
HIMS 1130
HIMS 1212
HITP 1115

Fourth quarter
HIMS 1180
MATH 1220
HIMS 1410
Second Year
Fifth quarter
HIMS 1310
HIMS 2110
HIMS 2400
Sixth quarter
HIMS 2155
HIMS 2420
HMRL 1010
Seventh quarter
HIMS 2430

## Eighth quarter

HIMS 2981
HIMS 2980
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Medical Office Management (HIMO1)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Sarpy Center, Online
This degree provides students 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 | 48.0 |
| Option requirements | 21.0 |
| Total credit hours required | 96.0 |
| General education requirements |  |
| See General education requirements for Health Information Management <br> Systems (p. 135) |  |

## Major requirements for Health Information Management Systems

See Major requirements for Health Information Management Systems (p. 135)

## Requirements for Health Information Management Systems -Medical Office Management option (21.0 credit hrs.)

Courses
HIMS $1210 \quad$ Medical Office Communications $\bullet$ © 4.5

HIMS $2220 \quad$ Medical Transcription IB 4.5
HITP 1005 Introduction to Electronic Health Records $\backsim$ © 4.5
INFO 1213 Database Fundamentals 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in health information management systems after two years of full-time study.
First Year
First quarter

Information Systems and Literacys ©
Second quarter
HIMS 1120 Medical Terminology IS © 4.5
HIMS $1150 \quad$ Introduction to Medical Law and Ethics $\odot$ © 4.5
Third quarter
HIMS 1130
HIMS 1212
Medical Terminology IIS©
HITP 1005 Introduction to Electronic Health Records $\backsim$ © 4.5
Fourth quarter HIMS 1210
HIMS 1410
Medical Office Communications © 4.5
Introduction to Insurance $\quad 3.0$
HITP $1115 \quad$ Electronic Health Records (EHR) Lab 4.5
Second Year
Fifth quarter
HIMS $1310 \quad$ Introduction to Anatomy and Physiology © 4.5
HIMS $2110 \quad$ Principles of Management in Healthcare $\because \bullet$ © 4.5
HIMS $2400 \quad$ Introduction to Coding and Billing $\quad 4.5$
Sixth quarter
HIMS 2220
HMRL 1010
MATH 1220
Medical Transcription Iß
Human Relations Skills $\smile$ © 4.5
Business Mathematics 4.5
Seventh quarter
INFO 1213
Database Fundamentals - B
Social sciences elective 4.5
Eighth quarter
HIMS 2981
Internship
HIMS $2980 \quad$ Medical Office Applications $\sim$ B 4.5
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.
4.5
4.0

## Medical Language Specialist II (HIMLO)

Award: Associate in applied science degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Online
This degree prepares students for employment as medical transcriptionists 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 48.0
Option requirements 22.5
Total credit hours required 97.5

## General education requirements

See General education requirements for Health Information Management Systems (p. 135)

## Major requirements for Health Information Management Systems

See Major requirements for Health Information Management Systems (p. 135)

## Requirements for Health Information Management Systems - Medical Language Specialist II option (22.5 credit hrs.)

## Courses

HIMS 1180 Disease Processes $\smile$ © 4.5
HIMS $1210 \quad$ Medical Office Communications © 4.5
HIMS $2155 \quad$ Fundamentals of Pharmacology $\bullet$ • 4.5
HIMS $2220 \quad$ Medical Transcription IB 4.5
HIMS $2230 \quad$ Medical Transcription II® 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in health information management systems after two years of full-time study.
First Year
First quarter
HIMS 1111 Healthcare Careers © © 4.5

INFO 1001
Second quarter
HIMS 1120
HIMS 1150
Third quarter
HIMS 1130
HIMS 1212
HITP 1115

Fourth quarter
HIMS 1180
MATH 1220
HIMS 1310
Second Year
Fifth quarter
HIMS 1210
HIMS 2155
HIMS 2400
Sixth quarter
HIMS 2110
HIMS 2220
HMRL 1010
Seventh quarter
HIMS 2230

## Eighth quarter

HIMS 2981 Internship 4.0
HIMS $2980 \quad$ Medical Office Applications $\cup$ 4.5
The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Medical Office

Certificate of Achievement:
Medical Office
Medical Coding and Billing Assistant
Medical Office Assistant
Medical Language Specialist I

## Medical Office (MOPC1)

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. This certificate of achievement provides educational opportunities to individuals to obtain the basic knowledge, skills, and attitudes necessary to succeed as clerks in a medical office environment.

## Graduation Requirements

General education 13.5
Major requirements 18.0
Option requirements 21.0-22.5
Total credit hours required 52.5-54.0
General education requirements ( 13.5 credit hrs.)
Communications
English level I 4.5
See Communications course options (p. 25)
Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics - B 4.5
or higher level MATH course
Other
INFO 1001 Information Systems and Literacy ${ }^{-1}$ ©
Major requirements for Medical Office ( 18.0 credit hrs.)
Courses
HIMS 1120 Medical Terminology IF
HIMS $1130 \quad$ Medical Terminology II $\because$ © 4.5
HIMS 1150 Introduction to Medical Law and Ethics - © © 4.5
HIMS $1310 \quad$ Introduction to Anatomy and Physiology $\odot$ © 4.5

## Option requirements for Medical Office (21.0-22.5 credit hrs.)

The Medical Office options 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 (21.0 credit hrs.)
Medical Coding and Billing Assistant (MOCB1) (p. 137)
Medical Office Assistant (22.5 credit hrs.)
Medical Office Assistant (MOOA1) (p. 138)
Medical Language Specialist I (22.5 credit hrs.)I
Medical Language Specialist I (MOLC1) (p. 138)
Students having little or no experience in the healthcare field should also consider taking HIMS 1111 Healthcare Careers.
Students further their education in the Health Information Management Systems area by completing an associate degree.

## Medical Coding and Billing Assistant (MOCB1)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus, Online
This certificate of achievement provides students with the basic foundation needed to work in a healthcare facility as coding and billing assistants.

## Graduation Requirements

General education 13.5
Major requirements 18.0
Option requirements 21.0
Total credit hours required 52.5

## General education requirements

See General education requirements for Medical Office (p. 137)

## Major requirements for Medical Office

See Major requirements for Medical Office (p. 137)

## Option requirements for Medical Office - Medical Coding and Billing Assistant ( 21.0 credit hrs.)

## Courses

HIMS 1180
Disease Processes $\smile$
HIMS 1410
Introduction to Insurance- $\bullet$ 3.0

HIMS 2400 Introduction to Coding and Billing © 4.5
HIMS $2420 \quad$ Coding and Billing IS© © 4.5
HIMS 2430
Coding and Billing II®®
4.5

It is strongly recommended that students take HIMS 2155 Fundamentals of Pharmacology in order to meet entry-level requirements for working in medical coding and billing.

## Curriculum Plan

Below is a suggested guide for students planning careers as medical coding and billing assistants after one year of full-time study.

## First Year

First quarter
HIMS 1120
Medical Terminology | $\mathcal{B}$ • 4.5
INFO 1001
Second quarter
HIMS 1130
HIMS 1150
HIMS 1410
Third quarter
HIMS 1180
HIMS 1310
HIMS 2400
Fourth quarter
HIMS 2420
HIMS 2430
MATH 1220

ENGL level I
Information Systems and Literacy 4.5
Medical Terminology IIF © 4.5
Introduction to Medical Law and Ethics © 4.5
Introduction to Insurance $\triangleleft$ ๔ 3.0

Disease Processes 4.5
Introduction to Anatomy and Physiology $\bullet$ © 4.5
Introduction to Coding and Billing 4.5
Coding and Billing IS © 4.5
Coding and Billing $\| \because \bullet$ © 4.5
Business Mathematics 4.5

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Medical Office Assistant (MOOA1)

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

This certificate of achievement provides students with the basic foundation necessary to work in healthcare facilities as medical receptionists or hospital facilities as unit secretaries.

## Graduation Requirements

General education 13.5
Major requirements 18.0
Option requirements 22.5
Total credit hours required 54.0

## General education requirements

See General education requirements for Medical Office (p. 137)

## Major requirements for Medical Office

See Major requirements for Medical Office (p. 137)

## Option requirements for Medical Office - Medical Office Assistant (22.5 credit hrs.)

Courses
HIMS $1210 \quad$ Medical Office Communications © 4.5
HIMS $1212 \quad$ Microsoft Word for Medical Office $\smile$ © 4.5
HIMS 2220 Medical Transcription IB 4.5
HIMS $2400 \quad$ Introduction to Coding and Billing © © 4.5
HITP 1005 Introduction to Electronic Health Records - © 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers as medical office assistants after one year of full-time study.

## First Year

First quarter

|  | Medical Terminology I ® $_{\text {© }}$ | 4.5 |
| :---: | :---: | :---: |

HIMS 1150 Introduction to Medical Law and Ethics $\smile$ © 4.5
INFO 1001 Information Systems and Literacy- 4.5
Second quarter
ENGL level।
HIMS $1130 \quad$ Medical Terminology II $\odot$ • 4.5
HIMS $1210 \quad$ Medical Office Communications $७$ © 4.5
Third quarter
HIMS 1212
HIMS 1310
Microsoft Word for Medical Office - ©
Introduction to Anatomy and Physiology $\quad$ • 4.5
HITP 1005 Introduction to Electronic Health Records $\smile$ © 4.5
Fourth quarter
HIMS 2220
HIMS 2400
Medical Transcription I-B 4.5

Introduction 4.5
MATH $1220 \quad$ Business Mathematics ${ }^{\bullet}$.5

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Medical Language Specialist I (MOLC1)

Award: Certificate of achievement
Program location: Elkhorn Valley Campus, Fort Omaha Campus, Online
This certificate of achievement provides students with the basic knowledge and skills necessary for entry-level medical transcription trainee positions 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

See General education requirements for Medical Office (p. 137)
Major requirements for Medical Office
See Major requirements for Medical Office (p. 137)
Option requirements for Medical Office - Medical Language Specialist I ( 22.5 credit hrs.)

## Courses

HIMS $1210 \quad$ Medical Office Communications $७$ • 4.5
HIMS 1212 Microsoft Word for Medical Office $\checkmark$ © 4.5
HIMS 2155 Fundamentals of Pharmacology © 4.5
HIMS 2220 Medical Transcription I- 4.5
HIMS $2230 \quad$ Medical Transcription IIß 4.5

## Curriculum Plan

Below is a suggested guide for students planning careers in medical transcription after one year of full－time study．
First Year
First quarter
HIMS $1120 \quad$ Medical Terminology ITB $\quad 4.5$
HIMS 1150
INFO 1001
Second quarter
HIMS 1130
HIMS 1210
HIMS 1212
Third quarter
HIMS 1310
HIMS 2155
HIMS 2220
Fourth quarter
HIMS 2230
MATH $1220 \quad$ Business Mathematics $\Theta \quad 4.5$
The certificate option is an area of interest within a program．Although students may complete single or multiple options within this program，only the major certificate is awarded．
The Medical Transcription program is approved by the Approval Committee for Certified Programs，a joint committee established by the American Health Information Management Association and the Association for Healthcare Documentation Integrity to approve medical transcription education certified programs．

## Patient Transfer Coordinator（HIMPC）

Award：Career certificate
Program location：Elkhorn Valley Campus，Fort Omaha Campus，Sarpy Center， South Omaha Campus，Online
This career certificate prepares students for employment as a patient travel coordinator at a call center．Students gain the medical knowledge needed to manage activities and communication involved in transferring patients via ground and air from one facility to another．

## Requirements for Patient Transfer Coordinator career certificate（ 27.0 credit hrs．）

## Courses

HIMS $1120 \quad$ Medical Terminology IV
HIMS $1130 \quad$ Medical Terminology II $\bullet$ • 4.5
HIMS 1180 Disease Processes © 4.5
HIMS $1212 \quad$ Microsoft Word for Medical Office $\bigcirc$ © 4.5
HIMS 1310 Introduction to Anatomy and Physiology $\smile$ © 4.5
HIMS 2220 Medical Transcription Iß 4.5

## Health Information Technology Professional <br> Degree：Associate in Applied Science <br> Health Information Technology Professional <br> Career Certificate： <br> Health Information Technology <br> Health Information Technology Professional （HITAS）

Award：Associate in applied science degree
Program location：Online
The implementation，configuration，and support of health information systems are vital in today＇s healthcare industry．This program instructs students on the management of health IT systems，quality improvement through meaningful use of health information technology，security and exchange of protected health information，and the creation of administrative efficiencies through these systems．

| Students completing this degree are prepared to work as health IT specialists in a clinical or acute care setting． |  |
| :---: | :---: |
| Graduation Requirements |  |
| General education | 27.0 |
| Major requirements | 63.5 |
| Option requirements | 18.0 |
| Total credit hours required | 108.5 |
| General education requirements（27．0 credit hrs．） |  |
| Communications |  |
| English level I | 4.5 |
| English level II | 4.5 |
| See Communications course options（p．25） |  |
| Social sciences |  |
| Social sciences | 4.5 |
| See Social sciences options（p．25） |  |
| Quantitative／numeracy skills |  |
| MATH 1220 Business Mathematics ${ }^{\text {B }}$ | 4.5 |
| Other |  |
| HMRL 1010 Human Relations Skills ® $^{\text {© }}$ | 4.5 |
| INFO 1001 Information Systems and Literacy ${ }^{\text {© }}$－ | 4.5 |

## Major requirements for Health Information Technology Professional（ 63.5 credit hrs．）

Courses
HIMS 1150 Introduction to Medical Law and Ethics $\smile$ © 4.5
HITP $1010 \quad$ Introduction to Health Information 4.5
Technology ${ }^{\wedge}$
HITP 1145 Healthcare Applications I• © 4.5
HITP $1510 \quad$ Working with EHR Systems $\because$ ® 4.5
HITP $1616 \quad$ Health Information Exchange $\checkmark$ B 4.5
HITP $2940 \quad$ Health IT Capstone 4.5
OR
INFO 1003 Introduction to Computer Programming $\smile$ © $\quad 5.0$
INFO 1011 Project Management $\smile$ ® 4.5
INFO 1023 Networking Essentials $\smile$ © 4.5
INFO $1110 \quad$ Windows Operating Systems I © 4.5
INFO 1111 Linux Operating Systems IBO 4.5
INFO 1620 Introduction to Database Design 3 © 4.5
INFO $2805 \quad$ Network and Information Security Basics $-\theta \quad 4.5$
INFO 2808 Boundary Protection 3 B 4.5
HITP 2940 or HITP 2981 is the final course for the program．Students should take one of these options only after completion of all other HITP requirements．

Options requirements for Health Information
Technology Professional（ 18.0 credit hrs．）
Courses
HIMS 1120 Medical Terminology 怋• 4.5
HITP 1115 Electronic Health Records（EHR）Lab 4.5
HITP $1310 \quad$ Principles of Healthcare Management® 4.5
HITP $1415 \quad$ Workflow Redesign Iß 4.5
HITP $1511 \quad$ Workflow Redesign II丹 4.5
HITP $1512 \quad$ Usability and Health Information Systems $-\hat{B} \quad 4.5$
HITP 1615 Install，Maintain，and Configure EHRs $\triangleleft$ 丹 4.5
HITP $1701 \quad$ Training EHR／HIT Users $७$ B 4.5
INFO 1401 Introduction to Data Center Management $\mathcal{B} \quad 4.5$
INFO 2135 Network Infrastructure - ® 4.5
INFO 2439 Mobile Application Development 4.5
INFO $2806 \quad$ Network Attacks，Intrusions，and Penetration 4.5
Testing
Students need to meet with designated faculty to plan the remainder of the course of study．Students select from any of the courses listed here．

## Curriculum Plan

Below is a suggested guide for students planning careers in health information technology after two years of full－time study．

## First Year

First quarter

INFO 1001
INFO 1003
Second quarter
HITP 1010
INFO 1110
INFO 1620
Third quarter
HIMS 1150
HITP 1145
INFO 1023
Fourth quarter

HITP 1510
INFO 1011
Second Year
Fifth quarter
HITP 1616
INFO 1111
MATH 1220
Sixth quarter
HMRL 1010
INFO 2805

Seventh quarter
INFO 2805

Eighth quarter
HITP 2940

HITP 2981

| Gen．Ed． | 4.5 |
| :---: | :---: |
| Information Systems and Literacy ${ }^{\text {© }}$ © | 4.5 |
| Introduction to Computer Programming $\overbrace{\text { © }}$（ | 5.0 |
| Introduction to Health Information | 4.5 |
| Technology ${ }^{\text {® }}$ |  |
| Windows Operating Systems I＊ | 4.5 |
| Introduction to Database Design $\overbrace{\bullet}^{\text {© }}$ | 4.5 |
| Introduction to Medical Law and Ethics $\overbrace{\bullet}$ © | 4.5 |
| Healthcare Applications I－ | 4.5 |
| Networking Essentials ${ }^{\text {B }}$ © | 4.5 |
| Gen．Ed． | 4.5 |
| Working with EHR Systems $\checkmark$＊ | 4.5 |
| Project Management $\mathcal{B}$ | 4.5 |
| Health Information Exchange - O | 4.5 |
| Linux Operating Systems I－B | 4.5 |
| Business Mathematics $\uparrow$ | 4.5 |
| Human Relations Skills $\checkmark$ © | 4.5 |
| Network and Information Security Basics $\sim_{\text {® }}$ | 4.5 |
| Option | 4.5 |
| Network and Information Security Basics ${ }_{\text {B }}$ | 4.5 |
| Option | 4.5 |
| Option | 4.5 |
| Health IT Capstone | 4.5 |
| OR |  |
| Health IT Internship | 4.5 |
| Option | 4.5 |
| Social science elective | 4.5 |

## Health Information Technology（HITSD）

Award：Career certificate
Program location：Online
This career certificate prepares students with a background in healthcare or information technology to participate in the conversion to an electronic health records system．Students gain skills in EHR installation，configuration，and maintenance．

## Requirements for Health Information Technology career certificate（ 27.0 credit hrs．）

## Courses

HITP $1010 \quad$ Introduction to Health Information 4.5
HITP $1310 \quad$ Principles of Healthcare Management $\because$ B 4.5
HITP $1415 \quad$ Workflow Redesign IBB 4.5
Select three courses from the following：
HITP $1510 \quad$ Working with EHR Systems $\triangleleft$
HITP $1511 \quad$ Workflow Redesign II• 4.5
HITP $1512 \quad$ Usability and Health Information Systems - © 4.5
HITP $1615 \quad$ Install，Maintain，and Configure EHRs －$\quad 4.5$
HITP $1616 \quad$ Health Information Exchange - B 4.5
HITP $1701 \quad$ Training EHR／HIT Users $\bigcirc$

## Office Technology

Even as workplace technology and processes steadily improve，many professionals feel less productive than ever；these very tools are undermining our ability to get work done．The Office Technology program prepares students for careers in the business／corporate setting．This program provides students with a complete knowledge of basic business applications．These skills provide the foundation needed to succeed in today＇s rapidly changing business world．
Degree：Associate in Applied Science
Office Technology－Administrative Assistant
Office Technology－Office Professional
Certificate of Achievement：
Microcomputer Office Technology－Office Applications
Career Certificate：
Customer Service Representative

## Office Technology（OTAAS）

Award：Associate in applied science degree
Program location：Fort Omaha Campus，South Omaha Campus，Online
Office technology specialists are utilized in a broad range of businesses and industries，including both for－profit and nonprofit．This degree provides students with the knowledge and skills necessary for positions in an office environment． Throughout the course of study，students develop the skills needed to work toward Microsoft Office Specialist Certification．

Graduation Requirements
General education 27.0
Major requirements 54.0
Option requirements 16．5－18．0
Total credit hours required 97．5－99．0
General education requirements（ 27.0 credit hrs．）
Communications
English level I
4.5

English level II
4.5

See Communications course options（p．25）
ENGL 1220 Technical Writing and ENGL 1230 Oral and Written Reports are recommended．

Humanities／social sciences
Humanities／social sciences
See Humanities／social sciences course options（p．25）
Quantitative／numeracy skills
MATH $1220 \quad$ Business Mathematics $\checkmark$ 角 4.5
or higher level MATH course
Other
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
INFO 1001 Information Systems and Literacy 4.5
Major requirements for Office Technology（ 54.0 credit
hrs．） hrs．）

Courses
INFO $1008 \quad$ Business Office Communications $\backsim$ Ө 4.5
INFO $1012 \quad$ Electronic Filing and Calculating - B 4.5
INFO 1013 Keyboard Skillbuildingß 2.0
INFO 1211 Microsoft Word - B 4.5
INFO 1212 Spreadsheets $\checkmark$ ß 4.5
INFO $1213 \quad$ Database Fundamentals $\bullet$ B 4.5
INFO $1214 \quad$ Business Presentations $\backsim$ © 4.5
INFO 1215 Document Processing 84.5
INFO $1219 \quad$ Professional Practices $\smile$ 舟 4.5
INFO $2242 \quad$ Business Office Collaboration Technology用 4.5
INFO $2260 \quad$ Workplace Technologies $\backsim$ Ө 4.5
INFO 2948 Office Professional Capstone - B 5.0

| INFO 2980 | Office Technology Practicum | 2.0 |
| :--- | :--- | ---: |
| INFO 2981 | OR | Internship |

Option requirements for Office Technology (16.5-18.0
credit hrs.) 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 (18.0 credit hrs.)
Office Technology - Administrative Assistant (OTAAO) (p. 141)
Office Professional (16.5-18.0 credit hrs.)
Office Technology - Office Professional (OTOPO) (p. 141)

## Office Technology - Administrative Assistant (OTAAO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus, Online
This flexible and broadly based degree achieves maximum individual development of each person's knowledge and skills relative to the wide range of duties encountered in either for-profit or nonprofit enterprises. Aspiring supervisors, executive assistants, and general office workers find this program useful in developing their productivity and capacity for advancement.

## Graduation Requirements

| General education | 27.0 |
| :--- | :--- |
| Major requirements | 54.0 |
| Option requirements | 18.0 |
| Total credit hours required | $\mathbf{9 9 . 0}$ |

## General education requirements

See General education requirements for Office Technology (p. 140)

## Major requirements for Office Technology

See Major requirements for Office Technology (p. 140)
Option requirements for Office Technology Administrative Assistant ( 18.0 credit hrs.)

## Courses

BSAD $1000 \quad$ Introduction to Business $\smile$ 丹 $\quad 4.5$

BSAD 1100 Business Law lob 4.5
BSAD $1600 \quad$ Principles of Supervision-B 4.5
WORK 1400
Employability Skills
For WORK 1400, register for a section that is 4.5 credit hours.

## Curriculum Plan

Below is a suggested guide for students planning careers as administrative assistants after two years of full-time study.

## First Year

First quarter
INFO 1001 Information Systems and Literacy © $\quad 4.5$

INFO 1013 Keyboard Skillbuilding 2.0
MATH 1220
Second quarter

INFO 1012
INFO 1211
Third quarter
BSAD 1000
INFO 1008
Business Office Communications $-\mathcal{B}$
INFO 1213

| Fourth quarter |  |  |
| :---: | :---: | :---: |
| BSAD 1100 | Business Law le | 4.5 |
| INFO 1219 | Professional Practices $\sim_{\text {® }}$ | 4.5 |
| INFO 1212 | Spreadsheets $\checkmark$ | 4.5 |
| Second Year |  |  |
| Fifth quarter |  |  |
| INFO 1214 | Business Presentations $ٌ$ | 4.5 |
| INFO 1215 | Document Processing ${ }^{\text {B }}$ | 4.5 |
| INFO 2242 | Business Office Collaboration Technology ${ }^{\text {B }}$ | 4.5 |
| WORK 1400 | Employability Skills $\checkmark$ ¢ | variable |
| Sixth quarter |  |  |
| INFO 2260 | Workplace Technologies $\checkmark^{\text {® }}$ | 4.5 |
| BSAD 1600 | Principles of Supervision ${ }^{\text {® }}$ | 4.5 |
| HMRL 1010 | Human Relations Skills $\bigcirc$ © | 4.5 |
| Seventh quarter |  |  |
| INFO 2948 | Office Professional Capstone ${ }^{\bullet}$ | 5.0 |
| INFO 2980 | Office Technology Practicum | 2.0 |
|  | OR |  |
| INFO 2981 | Internship | variable |
|  | Humanities/social sciences elective | 4.5 |

The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

## Office Technology - Office Professional (OTOPO)

Award: Associate in applied science degree
Program location: Fort Omaha Campus, South Omaha Campus, Online
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 students to keep the offices organized and running smoothly and work with much of the valuable data that companies need to flourish.

## Graduation Requirements

General education 27.0
Major requirements 54.0
Option requirements 16.5-18.0
Total credit hours required 97.5-99.0

## General education requirements

See General education requirements for Office Technology (p. 140)
Major requirements for Office Technology
See Major requirements for Office Technology (p. 140)
Option requirements for Office Technology - Office Professional (16.5-18.0 credit hrs.)

## Courses

INFO $1010 \quad$ Customer Service Skills $\backsim$ B 4.5
INFO $1011 \quad$ Project Management $\smile$ ® $\quad 4.5$
INFO $1317 \quad 4.5$
Select one course from the following:
ACCT $1050 \quad 3.0$
HMRL $1050 \quad$ Leadership: Training and Skill Development 4.5
SPAN $1050 \quad$ Spanish for Business l®o 4.5

## Curriculum Plan

Below is a suggested guide for students planning employment as office professionals after two years of full-time study.

First Year
First quarter

|  | English level I | 4.5 |
| :--- | :--- | :--- |
| INFO 1001 | Information Systems and Literacy`© | 4.5 |
| INFO 1013 | Keyboard Skillbuilding | 2.0 |

MATH $1220 \quad$ Business Mathematics $\mathcal{\bullet} \quad 4.5$
Second quarter

INFO 1012
INFO 1211
Third quarter
INFO 1008
INFO 1010
INFO 1213
Fourth quarter
INFO 1011
INFO 1212
INFO 1219
Second Year
Fifth quarter
INFO 1214
INFO 1215
INFO 1317
Sixth quarter
HMRL 1010
INFO 2242
INFO 2260
Seventh quarter
INFO 2980
INFO 2981
INFO 2984

Quantitative/numeracy skills
MATH $1220 \quad$ Business Mathematics $\begin{array}{ll}\text { B } & 4.5\end{array}$
or higher level MATH course
Other
INFO 1001 Information Systems and Literacy © © 4.5
Major requirements for Microcomputer Office Technology ( 20.0 credit hrs.)
Courses
INFO $1013 \quad$ Keyboard Skillbuilding -3.0
INFO 1211 Microsoft Word -8 4.5
INFO $1212 \quad$ Spreadsheets $\checkmark$ B $\quad 4.5$
INFO 1213 Database Fundamentals $\bullet$ © 4.5
INFO $1214 \quad$ Business Presentations $\backsim$ 丹 $\quad 4.5$

## Option requirements for Microcomputer Office Technology ( 13.5 credit hrs.)

The Microcomputer Office Technology option specialization is available in the area listed below. See the following for specific additional courses required to satisfy the option.
Office Applications ( 13.5 credit hrs.)
Microcomputer Office Technology - Office Applications (OTGC1) (p. 142)
Microcomputer Office Technology - Office
Applications (OTGC1)
Award: Certificate of achievement
Program location: Fort Omaha Campus, South Omaha Campus, Online
This certificate of achievement provides students with the basic knowledge and
skills necessary for entry-level clerical positions in an office environment.
Graduation Requirements
General education
Major requirements
Option requirements
Total credit hours required

## General education requirements

See General education requirements for Microcomputer Office Technology
Major requirements for Microcomputer Office
Technology Technology
See Major education requirements for Microcomputer Office Technology
Option requirements for Microcomputer Office Technology - Office Applications (13.5 credit hrs.)

## Courses

INFO $1008 \quad$ Business Office Communications $\backsim$ B INFO $1012 \quad$ Electronic Filing and Calculating $\overbrace{B}$
INFO $1215 \quad$ Document Processing $\Theta$ 丹 $\quad 4.5$

## Suggested Guide for Courses

Below is a suggested guide for students planning careers in office applications after one year of full-time study.

## First Year

First quarter

|  | English level I | 4.5 |
| :---: | :---: | :---: |
| INFO 1010 | Customer Service Skills - ¢ | 4.5 |
| INFO 1013 | Keyboard Skillbuilding ® $^{\text {a }}$ | 2.0 |
| MATH 1220 | Business Mathematics $\beta$ | 4.5 |

Second quarter

| INFO 1008 | Business Office Communications $\checkmark$ ¢ | 4.5 |
| :---: | :---: | :---: |
| INFO 1012 | Electronic Filing and Calculating ${ }^{\text {® }}$ | 4.5 |
| INFO 1211 | Microsoft Word ${ }^{\circ}$ | 4.5 |
| Third quarter |  |  |
| INFO 1212 | Spreadsheets ${ }^{*}$ | 4.5 |
| INFO 1213 | Database Fundamentals $\mathcal{\forall}$ | 4.5 |
| INFO 1214 | Business Presentations ${ }^{\text {© }}$ | 4.5 |
| Fourth quarter |  |  |
|  | Humanities/social sciences elective | 4.5 |
| INFO 1215 | Document Processing ${ }^{\text {® }}$ | 4.5 |

The certificate option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major certificate is awarded.

## Customer Service Representative (PSCSD)

Award: Career certificate
This career certificate prepares students to work as customer service representatives for business and industry. NOTE: This career certificate leads to a general studies degree.

## Requirements for Customer Service Representative career certificate ( 22.5 credit hrs.)

## Courses

BSAD 1000 Introduction to Business $-\forall$ 4.5
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5
WORK $1400 \quad$ Employability Skills 4.5
INFO 1001 Information Systems and Literacy-® © 4.5
INFO 1008 Business Office Communications $\because$ ß 4.5
INFO $1010 \quad$ Customer Service Skills $\smile$ ß $\quad 4.5$

## Interdisciplinary Studies

In the 21st century, people are living and working in a world that increases in complexity by the minute. And so it is that the workplace has evolved to a point where it is sometimes difficult to categorize an occupation based on the skills and knowledge of a single field. Institutions of higher education are increasingly combining courses from different fields into order to prepare the workers of the future.
Academic programs that offer courses from more than one area are known as interdisciplinary programs. Here is the formal definition of interdisciplinary programs:
Interdisciplinary programs are instructional programs that derive from two or more distinct programs to provide a cross-cutting focus on a subject concentration that is not subsumed under a single discipline or occupational field.
Degrees from interdisciplinary programs aid students in developing skills, knowledge, and aptitudes necessary to seek employment in fields that overlap and are highly complex. MCC's first interdisciplinary degree is in Critical Facilities Operations where skills from information technology and multiple trades converge to prepare workers in critical facilities like hospitals and data centers.

## Center for Advanced and Emerging Technology

Currently, the Center for Advanced and Emerging Technology (CAET) grants interdisciplinary academic awards across information technology and applied technology.

## Critical Facilities Operations (CFOAS)

## Award: Associate in applied science degree

The Critical Facilities Operations degree prepares the student to enter the field of critical facilities operation with applied understanding of the synergistic relationships among components of information technology and a host of technical trade content areas, including HVAC, electrical, and industrial maintenance. Graduates are able to apply their understanding of multiple interconnected systems that make up a critical facility, such as a data center or hospital.

## Graduation Requirements

General education ..... 27.0
Major requirements ..... 76.0
Total credit hours required ..... 103.0
General education requirements ( 27.0 credit hrs.)
Communications
ENGL 1220 Technical Writing -3 ..... 4.5
ENGL $1240 \quad$ Oral and Written Reports $\backsim$ ..... 4.5
Humanities/social sciences
Humanities/social sciences ..... 4.5
See Humanities/social sciences course options (p. 25)
Quantitative/Numeracy Skills
MATH $1240 \quad$ Applied Mathematics ..... 4.5
Other
HMRL 1010 Human Relations Skills $\checkmark$ © ..... 4.5
INFO 1001 Information Systems and Literacy ${ }^{-}$© ..... 4.5
Major requirements for Critical Facilities Operations (76.0 credit hrs.)
Courses
DESL 1110 Diesel Engine Fuel Systems ..... 3.0
DESL $1210 \quad$ Electricity and Electronics ..... 6.0
ELTR 1200 Basic Electricity ..... 6.5
HVAC $1000 \quad$ Refrigeration Electrical Theory and ..... 6.0
HVAC $1010 \quad$ Refrigeration Service Principles and Basic ..... 6.0
INCT 1000 ..... 4.5Automatic Controls
INCT 1212 ..... 9.0
INCT 2060 Mechanical Power Systems
INCT 2231 Programmable Logic Controllers I ..... 4.5
INFO 1002 Introduction to Information Technology ..... 4.5
INFO 1023 Networking Essentials $\smile$ ..... 4.5
INFO 1110 Windows Operating Systems IT © ..... 4.5
INFO 1401 Introduction to Data Center Management $\mathcal{\vartheta}$ ..... 4.5
INFO 1431 Data Center Physical Design 3 ..... 4.5
CAET 2981 Internship ..... 4.0
DESL 1110: Prerequisite DESL 1230 waived for this program

## Literacy and Workplace Skills

## Who We Are

Helping all individuals reach their full potential is central to MCC's mission. The College has a long tradition of offering developmental education services that assist students who are at a pre-college level attain the skills necessary to be successful in college-level coursework. This focus is emphasized through Literacy and Workplace Skills' commitment to student success, student-centered learning, and teaching excellence.

## Mission Statement

The mission of Literacy and Workplace Skills is to strengthen students' basic literacy, academic, and workplace skills through high-quality classroom experiences and learning community support systems.

## Programs

## Career Certificate:

Professional Skills (PSKSD) (p. 144)

## Professional Skills (PSKSD)

Award: Career certificate
This career certificate gives 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, careerpath employment. NOTE: This career certificate leads to a general studies degree.

## Requirements for Professional Skills career certificate ( 25.5 credit hrs.)

## Courses

ENGL $1210 \quad$ Applied Communications 4.5
MATH $1220 \quad$ Business Mathematics $\smile$ © 4.5
WORK 1400 Employability Skills $\checkmark$ variable
WORK $1410 \quad$ Secrets to Business Success $\backsim 3.0$
Electives 10.5
Elective credits may be chosen from 1000- and 2000-level courses throughout MCC's catalog to fit with a student's career interest area.

## Math and Natural Sciences

## Who We Are

Math and Natural Sciences includes the mathematics curriculum and Math Centers on all campuses; biology, chemistry, physics and general science curriculum, along with multiple, well-equipped science labs on all campuses; and introductory freshman and sophomore level engineering courses.

## Mission Statement

A primary purpose of Math and Natural Sciences is to provide support to all academic areas of the college with math and sciences courses, from developmental through fully transferable offerings. Another objective is to offer gateway engineering courses for students planning to continue their education at the University of Nebraska-Lincoln.

## Transfer Degree Options

Associate in science degree: Liberal Arts/Academic Transfer (LATAS) (p. 153)

## Social Sciences

## Who We Are

The Social Science department includes early childhood education, education, geography, history, human relations, physical education, political science, psychology, sociology, and social work.

## Mission Statement

The mission of the Social Science department is to provide quality learning experiences that lead to understanding how each of us shapes, and is shaped by, our culture and society. Social science students will recognize and understand the obligation to engage in ethical, responsible, and legal behaviors. This is accomplished primarily through courses of study dedicated to teaching:

- The influence of history, geography, political science, psychology, and sociology on individuals and society
- The ability to distinguish opinion from facts
- The ability to recognize social biases
- The definition and necessity of social responsibility
- The value of diversity
- The development of social awareness


## Programs

Early Childhood Educator (ECAS1) (p. 144)
Early Childhood Educator - Assistant (ECTC1) (p. 145)
Early Childhood Education Director (ECDCC) (p. 146)
Early Childhood Generalist (ECGSD) (p. 146)
Early Childhood Spanish (ECSSD) (p. 146)

Early Childhood Sign Language (ECSLD) (p. 146)
Early Childhood Family/Group Home Specialist (ECGHD) (p. 147)

## Transfer Degree Options

Associate in arts degree: Liberal Arts/Academic Transfer (LATAA) (p. 152)
Associate in general studies: General Studies (GSAAS) (p. 95)

## Early Childhood Education

The Early Childhood Education program prepares students for employment as a head teacher or director of childcare facilities. Learning opportunities center on 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.
A criminal background investigation and checks of the child abuse/neglect, adult protective services and State Patrol sex offender registries will be required of each student the Early Childhood Education Program. Based on the result of the criminal background and registry checks, a student may be prevented from taking certain courses, accessing certain laboratory/practicum experiences, or completing the program. A nonrefundable fee of $\$ 35$ will be assessed to the student's MCC student account for the criminal background and registry checks.
The Early Childhood Education program is accredited by 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.

## Degree: Associate in Applied Science

Early Childhood Educator
Certificate of Achievement:
Early Childhood Educator - Assistant

## Career Certificate:

Early Childhood Education Director
Early Childhood Generalist
Early Childhood Spanish
Early Childhood Sign Language
Early Childhood Family/Group Home Specialist

## Early Childhood Educator (ECAS1)

Award: Associate in applied science degree
Program location: Fort Omaha Campus
This degree prepares students for employment as a head teacher or director of childcare facilities. Learning opportunities are centered on curriculum planning, managing, and teaching within a childcare facility. The program stresses skills essential to working with parents and children in a variety of settings and activities.
Individuals who are 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 individuals enrolled in practicum courses. This practice is consistent with Nebraska state statutes. Updated Nebraska licensing regulations require students working directly with children have a current criminal background check.
All courses in the Early Childhood Education program require a minimum of four field experience hours within early childhood education settings except for ECED
1220, ECED 1221, ECED 1240, and ECED 2090 or ECED 2091.

## Graduation Requirements

General education 31.5
Major requirements 75.0
Total credit hours required 106.5

## General education requirements ( 31.5 credit hrs.)

Communications
English level I
4.5

English level II
4.5

See Communications course options (p. 25)
Social sciences
PSYC 1120
Human Growth and Development $\sim$
4.5

Social sciences
4.5

See Social sciences course options (p. 25)


ECED 1221 (p. 182), ECED 1240 (p. 183), ECED 2090 (p. 183) or ECED 2091 (p. 183): Students enrolling in practicums should visit the Early Childhood practicum website at www.mceneb.edu/ecp. Students must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. EMSP 1010 (p. 186) Heartsaver First Aid with CPR and AED is offered through MCC as a 1.0 credit hour course.

## Curriculum Plan

Below is a suggested guide for students planning careers in early childhood education after two years of full-time study.

## First Year

## First quarter

ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED 1110 Infant and Toddler Development 3 ß 4.5
ECED $1150 \quad$ Introduction to Early Childhood Education -3
ECED 1220 Prepracticum 1.5
ECED $1260 \quad$ Children's Health and Nutrition - B 4.5
ENGL 1010 English Composition Iß® 4.5
ENGL 1010: general education requirements are available Summer quarter. If
ENGL 1010 is not taken prior to ECED 1060, it must be a corequisite.
Second quarter
ECED 1050 Expressive Arts $\because$ - 4.5
ECED $1120 \quad$ Preschool Child Development $७$ ß $\quad 4.5$
ECED 1221 Infant and Toddler Practicum 3.0
ECED $1260 \quad$ Children's Health and Nutrition $-3 \quad 4.5$

| Third quarter |  |  |
| :---: | :---: | :---: |
| ECED 1230 | School-Age Child Development and Programming ${ }^{-3}$ | 3.0 |
| ECED 1240 | Preschool- and School-Age Practicum | 3.0 |
| MATH 1220 | Business Mathematics $\underbrace{\text { B }}$ | 4.5 |
|  | OR |  |
| MATH 1310 | Intermediate Algebra $\sim^{\text {B }}$ | 4.5 |
| PSYC 1120 | Human Growth and Development* | 4.5 |
| MATH 1220, MATH 1310, PSYC 1120: general education requirements available Summer quarter |  |  |
| Second Year |  |  |
| Fifth quarter |  |  |
| ECED 1160 | Early Language and Literacy ${ }^{\text {® }}$ | 4.5 |
| ECED 2060 | Early Childhood Education Curriculum Planning | 4.5 |
| ECED 2061 | Child Guidance Techniques | 4.5 |
| INFO 1001 | Information Systems and Literacy $\bigcirc$ | 4.5 |
| INFO 1001: general education requirements available Summer quarter |  |  |
| Sixth quarter |  |  |
| ECED 2070 | Family and Community Relationships $\overbrace{\bullet}$ | 4.5 |
| ECED 2095 | Current Topics in Early Childhood Education 3 | 4.5 |
| ECED 2450 | Administration of Early Childhood Education Programs $\bullet_{\text {© }}$ | 4.5 |
| ENGL 1020 | English Composition II७© | 4.5 |
| ENGL 1020, HMRL 1010: general education requirements available Summer quarter |  |  |
| Seventh quarter |  |  |
| ECED 2050 | Children with Exceptionalities $\checkmark$ © | 4.5 |
| ECED 2090 | Early Childhood Student Teaching Practicum OR | 6.0 |
| ECED 2091 | Early Childhood Administrative Practicum | 6.0 |
| HMRL 1010 | Human Relations Skills $\checkmark$ © | 4.5 |
|  | Humanities/social science elective | 4.5 |
| Humanities/social sciences: general education requirements available Summer quarter |  |  |
| Students who plan to transfer to a four-year institution need to select from the general education transfer course options (p.150) and see and maintain regular contact with an ECED faculty advisor. |  |  |
| This program is accredited through the National Association for the Education of Young Children (NAEYC), which means it was required to meet high standards in the preparation of early childhood education employees. |  |  |

## Early Childhood Educator - Assistant (ECTC1)

Award: Certificate of achievement
Program location: Fort Omaha Campus, Online
This certificate of achievement provides training/learning opportunities for paraprofessionals who assist head teachers in carrying out various responsibilities. These responsibilities include planning and organizing activities used in the care of young children.

Individuals who are 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 individuals enrolled in practicum courses. This practice is consistent with Nebraska state statutes.

All courses in the Early Childhood Education program require a minimum of four field experience hours within early childhood education settings except for ECED
1220, ECED 1221, ECED 1240, and ECED 2090.

## Graduation Requirements

## General education

Major requirements 37.5
Total credit hours required

## General education requirements ( 13.5 credit hrs.)

Communications
English level I
See Communications course options (p. 25)
Social sciences
PSYC $1120 \quad$ Human Growth and Development-B
Quantitative/numeracy skills
Select one course from the following:
MATH 1220 Business Mathematics $\because$ 丹 4.5
MATH $1310 \quad$ Intermediate Algebraß 4.5
Students planning to transfer to a four-year program should select MATH 1310.

## Major requirements for Early Childhood Educator Assistant ( 37.5 credit hrs.)

## Courses

ECED 1050 Expressive Arts $\backsim$ © 4.5
ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED 1110 Infant and Toddler Development $\mathcal{B B}^{\text {B }} 4.5$
ECED $1120 \quad$ Preschool Child Development $\beta$ 4.5
ECED $1150 \quad$ Introduction to Early Childhood Education -3 4.5
ECED 1220 Prepracticum 1.5
ECED 1221 Infant and Toddler Practicum 3.0
ECED $1230 \quad \begin{gathered}\text { School-Age Child Development and } \\ \text { Progrand }\end{gathered}$
ECED $1240 \quad$ Preschool- and School-Age Practicum 3.0
ECED $1260 \quad$ Children's Health and Nutrition -9.5
ECED 1221, ECED 1240: Students enrolling in practicums should visit the Early
Childhood practicum website at www.mccneb.edu/ecp. Students must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. EMSP 1010 Heartsaver First Aid with
CPR and AED is offered through MCC as a 1.0 credit hour course.

## Curriculum Plan

Below is a suggested guide for students planning careers in early childhood education after one year of full-time study.

## First Year

First quarter
ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED 1110 Infant and Toddler Development 3 ® 4.5
ECED $1050 \quad$ Expressive Arts $\mathcal{B} \quad 4.5$
ECED $1220 \quad$ Prepracticum 1.5
ENGL $1010 \quad$ English Composition Iß
ENGL 1010: general education requirements available Summer quarter
Second quarter
ECED $1050 \quad$ Expressive Arts $\because$ - 4.5
ECED $1120 \quad$ Preschool Child Development $\smile \mathcal{B} \quad 4.5$
ECED $1221 \quad$ Infant and Toddler Practicum 3.0
ECED $1260 \quad$ Children's Health and Nutrition $७ \because 4.5$
Third quarter
ECED 1230
School-Age Child Development and
ECED $1240 \quad$ Preschool- and School-Age Practicum 3.0
MATH $1220 \quad$ Business Mathematics $\because$ en
OR
MATH $1310 \quad$ Intermediate Algebra $\bigcirc$
PSYC $1120 \quad$ Human Growth and Development- 3.5
MATH 1220, MATH 1310, PSYC 1120: general education requirements available Summer quarter

## Early Childhood Education Director (ECDCC)

Award: Career certificate
Program location: Fort Omaha Campus, South Omaha Campus
This career certificate allows early childhood education professionals the opportunity to further their education, enhance their careers, improve their service to the community, and stay competitive in the marketplace.

## Requirements for Early Childhood Education Director career certificate ( 28.5 credit hrs.)

Courses
ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED $1110 \quad$ Infant and Toddler Development-® 4.5
ECED $1120 \quad$ Preschool Child Development $\mathcal{B} \quad 4.5$
ECED $2091 \quad$ Early Childhood Administrative Practicum 6.0
ECED $2450 \quad$ Administration of Early Childhood Education 4.5
HMRL $1010 \quad$ Human Relations Skills $\smile$ © 4.5

## Early Childhood Generalist (ECGSD)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate focuses on specific early childhood education content and demonstrates specific skills.
All courses in the Early Childhood Education program require a minimum of four field experience hours within early childhood education settings except for ECED 1220, ECED 1221, ECED 1240, and ECED 2090.

## Requirements for Early Childhood Generalist career certificate ( 27.0 credit hrs.)

## Courses

ECED $1050 \quad$ Expressive Arts B 4.5
ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED $1110 \quad$ Infant and Toddler Development-B 4.5
ECED $1120 \quad$ Preschool Child Development $\because$ B $\quad 4.5$
ECED $1150 \quad$ Introduction to Early Childhood Education 3 B 4.5
ECED $1260 \quad$ Children's Health and Nutrition 3.5
ECED 1060, ECED 1110, ECED 1120, ECED 1150: can be used to gain a 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)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate focuses on specific early childhood education content and demonstrates specific skills. Courses include an introductory background of Spanish usage in the early childhood classroom. NOTE: SPAN courses do not count toward ECED degrees; this career certificate leads to a general studies degree.

## Requirements for Early Childhood Spanish career certificate ( 30.0 credit hrs.)

## Courses

ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED $1110 \quad$ Infant and Toddler Development $\begin{aligned} \text { B } & 4.5\end{aligned}$
ECED $1120 \quad$ Preschool Child Development $\beta$ ß $\quad 4.5$
ECED $1150 \quad$ Introduction to Early Childhood Education 3 B
SPAN $1050 \quad$ Spanish for Business I-B 4.5
SPAN $1110 \quad$ Elementary Spanish I丹 $\quad 7.5$
ECED 1060, ECED 1110, ECED 1120, ECED 1150: can be used to obtain a 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)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate focuses on specific early childhood education content and demonstrates specific skills. It includes sign language courses that give students a basic background of the usage of sign language in the early childhood classroom. NOTE: SLIS courses do not count toward ECED degrees; this career certificate leads to a general studies degree.

## Requirements for Early Childhood Sign Language career certificate ( 28.5 credit hrs.)

## Courses

ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED 1110 Infant and Toddler Development $\because$ ® 4.5
ECED $1120 \quad$ Preschool Child Development $\because$ B 4.5
ECED $1150 \quad$ Introduction to Early Childhood Education $-8 \quad 4.5$
SLIS $1010 \quad$ American Sign Language I 6.0
SLIS $1150 \quad$ Introduction to the Deaf World 4.5
ECED 1060, ECED 1110, ECED 1120, ECED 1150: can be used to gain a 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)

Award: Career certificate
Program location: Fort Omaha Campus
This career certificate focuses on specific early childhood education content and demonstrates specific skills. It includes entrepreneurship courses that help prepare students to operate their own family childcare home or a group 1/11 home. NOTE: ENTR courses do not count toward ECED degrees; this career certificate leads to a general studies degree.

## Requirements for Early Childhood Family/Group Home career certificate ( 30.0 credit hrs.)

## Courses

ECED $1060 \quad$ Observation, Assessment, and Guidance 4.5
ECED 1110 Infant and Toddler Development $\mathcal{\bullet}$ © 4.5
ECED $1120 \quad$ Preschool Child Development $\because$ B 4.5
ECED $1230 \quad$ School-Age Child Development and 3.0
ENTR $1050 \quad$ Introduction to Entrepreneurship $७$ © 4.5
ENTR $2040 \quad$ Entrepreneurship Feasibility Study ${ }^{\circ}$ 4.5
ENTR $2050 \quad$ Marketing for the Entrepreneur* 4.5
ECED 1060, ECED 1110, ECED 1120: can be used to obtain a 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.

## TRANSFER AND LIBERAL ARTS

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 MCC students to transfer their entire associate degree toward a four-year college degree. In most instances, students start 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 www.mccneb.edu/articulation for more information about these transfer courses or A-to-B Agreements.

## Degree: Associate in Arts

- Liberal Arts/Academic Transfer (p. 152)
- Liberal Arts/Academic Transfer - Language Studies (p. 153)


## Degree: Associate in Science

- Liberal Arts/Academic Transfer (p. 153)

See other programmatic-related transfer degrees:

- $\quad$ Art (p. 104)
- Business Transfer (p. 78)
- Computer Technology Transfer (p. 119)
- Culinary Arts and Management - Culinary Research/Culinology Transfer (p. 88)


## MCC Transfer Agreements

MCC Transfer Agreements
Alegent Creighton Health
Program Guides
Baker University
A-to-B Agreements
General Education Agreements
Course by Course Agreements
Bellevue University
A-to-B Agreements
General Education Agreements
Course by Course Agreements

## Buena Vista University

A-to-B Agreements
General Education Agreements
Course by Course Agreements

## Chadron State College

General Education Agreements
Course by Course Agreements
Clarkson College
A-to-B Agreements
General Education Agreements
Course by Course Agreements
College of Saint Mary
A-to-B Agreements
General Education Agreements
Course by Course Agreements
Concordia University
Course by Course Agreements

## Creighton University

General Education Agreements
Course by Course Agreements

## Doane College

A-to-B Agreements
Course by Course Agreements
Embry-Riddle Aeronautical University
A-to-B Agreements
Grace University
Course by Course 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 University
A-to-B Agreements
General Education Agreements

## Nebraska Methodist College

A-to-B Agreements
General Education Agreements
Nebraska Wesleyan University
A-to-B Agreements
General Education Agreements
Course by Course Agreements

## Northwest Missouri State University

A-to-B Agreements
General Education Agreements
Course by Course Agreements

Palmer College of Chiropractic<br>Program Guide<br>Peru State College<br>A-to-B Agreements<br>General Education Agreements<br>Course by Course Agreements<br>University of lowa<br>Course by Course Agreements<br>University of Kansas<br>Course by Course Agreements<br>University of Nebraska at Kearney<br>A-to-B Agreements<br>General Education Agreements<br>Course by Course Agreements<br>University of Nebraska-Lincoln<br>A-to-B Agreements<br>General Education Agreements<br>Course by Course Agreements<br>University of Nebraska Medical Center<br>A-to-B Agreements<br>Course by Course Agreements<br>Program Guides<br>University of Nebraska at Omaha<br>A-to-B Agreements<br>General Education Agreements<br>Course by Course Agreements<br>University of South Dakota - Vermillion<br>General Education Agreements<br>Wayne State College<br>A-to-B Agreements<br>General Education Agreements<br>Course by Course Agreements

NOTE: A program guide is a list of courses that transfer to a specific program. It can have general education courses but also includes specific major-related courses. A program guide does not lead to a specific associate degree.
For the most current transfer listings, visit 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.
- Potential transfer students should work with both an academic advisor from MCC and from the four-year institution they plan to attend to ensure a smooth transfer.
- Successful transfer of credit(s) 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 toward 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 D's or F's 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 students' last 30.0 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, transfer students 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 are not 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 do 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 3.0 quarter hours to 2.0 semester hours. For example, a 4.5 quarter hour class transfers as 3.0 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 |  |
| 1.0 | 0.67 | 1.00 | 4.0 | 2.67 | 7.0 | 4.67 | 10.0 |
| 1.5 | 1.33 | 5.0 | 3.00 | 7.5 | 5.00 | 10.5 |  |
| 2.0 | 1.67 | 2.00 | 6.0 | 3.67 | 8.00 | 5.33 | 11.0 |
| 2.5 |  |  | 9.0 | 5.67 | 11.5 | 7.33 |  |
| 3.0 |  |  | 6.00 | 12.0 |  |  |  |

## Frequently Asked Questions

## Should I check with the college or university where I am planning to transfer?

Once students choose a specific degree program and four-year institution for transfer, they should schedule an appointment with an advisor or counselor at the four-year institution. Phone numbers are listed on each of the transfer guides. Websites 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 students transfer before finishing the associate degree, the four-year institution determines 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 accept the courses, there is no guarantee, and some credit hours may not transfer. Students should work with an advisor or counselor from both MCC and the new four-year institution to accommodate their change of plans.

## Can I take additional courses beyond the degree?

Yes, although they may not transfer. Most institutions accept a maximum of 64.0 semester hours/ 96.0 quarter hours. Completing an associate degree meets this maximum. Students should work with an advisor or counselor from both MCC and the four-year institution to determine whether additional courses 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 keeps students on the appropriate educational and career paths and informed of potential changes in the degree plan.

Associate degrees and certificates that prepare students for transfer to other institutions are subject to change annually. Students completing their MCC coursework within four years can choose to receive a transfer degree or certificate under the catalog in force when they entered MCC or the transfer agreement in force during the year of graduation from MCC. In either case, students enter the institution they are transferring to under the degree requirements in force in that school's catalog on the date they transfer.

## Transcript Request Information

Upon completion of MCC courses, a transferring student must request that an official transcript be sent to the institution. Transcript requests may be submitted at www.mccneb.edu/academics/transcripts.asp or through the student portal (My Way), which is available to current students. Students have the option of requesting an electronic transcript or a paper transcript.
Electronic transcripts are processed within one to two business days. Paper transcripts are processed within five to seven days; allow additional processing time during peak times, such as graduation, end of a quarter, etc.

## Transfer Course Options

Students interested in any of the transfer courses and degrees should work with both an academic advisor from MCC and from the school they wish to transfer to in order to select the best course transfer options.

## Courses

## Quantitative/Numeracy Skills

MATH $1310 \quad$ Intermediate Algebra $\checkmark$ B
MATH 1410 Statistics -3.5
MATH $1420 \quad$ College Algebra $\checkmark 3.0$
MATH 1430 Trigonometry $\quad 4.5$
MATH $2410 \quad$ Calculus I- 7.5
MATH $2411 \quad$ Calculus II $\because \quad 7.5$
MATH $2412 \quad$ Calculus IIIB $\quad 6.0$
MATH $2510 \quad$ Differential Equations 4.5
Computer Sciences
INFO 1003 Introduction to Computer Programming 3.0
INFO 1521 Java Programming IB 4.5
INFO $1522 \quad$ C++ Programming l- 8 4.5
INFO 1523 Visual Basic.NET I-B 4.5
INFO 1524 COBOL I 5.0
INFO 1531 Java Programming IIß 4.5
INFO 1534 COBOL II 5.0
INFO 1620 Introduction to Database Design 3 © 4.5
INFO 2537 Data Structures Using C and C++ 4.5
INFO $2630 \quad$ Structured Query Language (SQL) ® 4.5
Cultural Studies
ENGL $2470 \quad$ Introduction to Women's Literature 4.5
ENGL $2490 \quad$ Introduction to Latin American Literature 4.5
ENGL 2530 Ethnic Literature 4.5
ENGL $2900 \quad$ Special Topics in Literature 4.5
GEOG 1050 Introduction to Human Geography ${ }^{*}$ - 4.5
HIST 1050 Introduction to Black History $\begin{array}{ll}\text { B } & 4.5\end{array}$
HIST $1060 \quad$ The History of Black Women in Americaß 3.5
HIST $1070 \quad$ Traditional and Modern Chinaß 4.5
HIST $1080 \quad$ Traditional and Modern Japan - B $\quad 4.5$
HIST $1110 \quad$ World Civilization from Prehistory to 1500 - 3.5
HIST $1120 \quad$ World Civilization from 1500 to Present $『$ © 4.5
HIST $2200 \quad$ Latin American History $\quad 4.5$
HUMS $1110 \quad$ Origins of the Humanities $-\frac{8}{3}$
HUMS $1150 \quad$ The Humanities in the Non-Western World -8 4.5
PHIL 2200 Introduction to Comparative Religion $७$ - 4.5
POLS $2070 \quad$ Contemporary Social and Political Issues $\mathcal{B B}^{6} 4.5$
SLIS 1150 Introduction to the Deaf World 4.5
SOCI $1100 \quad$ Native American Studies - B 4.5
SOCI 1250 Introduction to Anthropology 4.5
SOCI $2060 \quad$ Multicultural Issues $\because$ B 4.5
GEOG 1050, HIST 1050, HIST 1110, HIST 1120, HUMS 1110, HUMS 1150,
SOCI 2060: Course can only be used to satisfy one requirement. Students interested in any of the transfer courses and degrees should work with both an academic advisor from MCC and from the school they wish to transfer to in order to select the best course transfer options.

## Social Sciences

ECON 1000
ECON 1100
GEOG 1010
GEOG 1050
HIST 1010
HIST 1020
HIST 1050
HIST 1060
HIST 1070
Traditional and Modern China 4.5
HIST $1080 \quad$ Traditional and Modern Japan $\because \quad 4.5$
HIST $1110 \quad$ World Civilization from Prehistory to 1500 - 3.5
HIST $1120 \quad$ World Civilization from 1500 to Present $\odot$ © 4.5

| HIST 2050 | Modern Europe since 1815 | 4.5 | HUMS 1130 | The Humanities in the Modern World $\begin{aligned} & \text { ® }\end{aligned}$ | 4.5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 2200 | Latin American History- | 4.5 | HUMS 1150 | The Humanities in the Non-Western World-e | 4.5 |
| HIST 2220 | U.S. and Global Military History* | 4.5 | HUMS 2310 | Film History and Appreciation ${ }^{\text {© }}$ | 4.5 |
| POLS 2050 | American National Government* | 4.5 | JAPN 1010 | Beginning Japanese I | 7.5 |
| POLS 2060 | The Constitution- ${ }^{\text {P }}$ | 4.5 | JAPN 1020 | Beginning Japanese II | 7.5 |
| POLS 2070 | Contemporary Social and Political Issues® | 4.5 | JAPN 2010 | Intermediate Japanese I | 4.5 |
| PSYC 1010 | Introduction to Psychology ${ }^{\text {® © }}$ © | 4.5 | JAPN 2020 | Intermediate Japanese II | 4.5 |
| PSYC 1110 | Parenting and Family Problem Solving-* | 4.5 | JAPN 2030 | Intermediate Japanese III | 4.5 |
| PSYC 1120 | Human Growth and Development* | 4.5 | JAPN 2040 | Intermediate Japanese IV | 4.5 |
| PSYC 1130 | Cognitive Development-3 | 4.5 | MUSC 1010 | Introduction to Music I | 4.5 |
| PSYC 2140 | Behavior Modification and Principles of | 4.5 | MUSC 1020 | Introduction to Music II | 4.5 |
|  | Learning ${ }^{\text {® }}$ |  | MUSC 1050 | Music Appreciation ${ }^{\text {O }}$ | 4.5 |
| PSYC 2150 | Survey of Human Sexuality- ${ }^{\text {d }}$ | 4.5 | MUSC 1110 | Music Fundamentals | 4.5 |
| PSYC 2350 | Fundamentals of Abnormal Psychology* | 4.5 | MUSC 1120 | Music Fundamentals II | 4.5 |
| PSYC 2450 | Social Psychology ${ }^{\text {® }}$ | 4.5 | PHIL 1010 | Introduction to Philosophy* | 4.5 |
| PSYC 2550 | Popular Readings in Social Science ${ }^{\text {S }}$ | 4.5 | PHIL 1030 | Professional Ethics^* | 4.5 |
| PSYC 2650 | Research Methods ${ }^{\text {¢ }}$ | 4.5 | PHIL 1100 | Critical Reasoning ${ }^{\text {B }}$ | 4.5 |
| SOCI 1010 | Introduction to Sociology © | 4.5 | PHIL 2030 | Introduction to Ethics-* | 4.5 |
| SOCI 1050 | Sociology of Healthcare $\checkmark^{\checkmark}$ | 4.5 | PHIL 2200 | Introduction to Comparative Religion४® | 4.5 |
| SOCI 1100 | Native American Studies-8 | 4.5 | PHIL 2400 | Philosophy and Literature | 4.5 |
| SOCI 1250 | Introduction to Anthropology-e | 4.5 | PHIL 2600 | Contemporary Issues in Philosophy | 4.5 |
| SOCI 2050 | Current Social Problems $\checkmark$ ® | 4.5 | SLIS 1010 | American Sign Language I | 6.0 |
| SOCI 2060 | Multicultural Issues ${ }^{\text {® }}$ | 4.5 | SLIS 1020 | American Sign Language II | 6.0 |
| SOCI 2110 | Introduction to Gerontologyve | 4.5 | SPAN 1110 | Elementary Spanish Ife | 7.5 |
| SOCI 2150 | Survey of Human Sexuality-3 | 4.5 | SPAN 1120 | Elementary Spanish IIT* | 7.5 |
| SOCI 2160 | Marital and Family Relationships ${ }^{\circ}$ | 4.5 | SPAN 2110 | Intermediate Spanish İ | 4.5 |
| SOCI 2310 | Criminology ${ }^{\text {® }}$ | 4.5 | SPAN 2120 | Intermediate Spanish IIF* | 4.5 |
| SOCI 2311 | Juvenile Justice ${ }^{\text {B }}$ | 4.5 | SPCH 1220 | Communication in Small Groups | 4.5 |
| SOCI 2450 | Social Psychology ${ }^{\text {® }}$ | 4.5 | SPCH 1300 | Interpersonal Communication | 4.5 |
| SOCI 2550 | Popular Readings in Social Science ${ }^{\text {B }}$ | 4.5 | THEA 1000 | Introduction to the Theatre^A | 4.5 |
| SOCI 2650 | Research Methods ${ }^{\text {¢ }}$ | 4.5 | THEA 2010 | Script Analysis | 4.5 |
| SOWK 1010 | Introduction to Social Work-b | 4.5 | THEA 2020 | Fundamentals of Acting I | 4.5 |
| GEOG 1050, HIST 1050, HIST 1110, HIST 1120, SOCI 2060: Course can only be used to satisfy one requirement. Students interested in any of the transfer courses and degrees should work with both an academic advisor from MCC and from the school they wish to transfer to in order to select the best course transfer options. |  |  | 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 |
| Humanities <br> ARTS 1000 | Introduction to the Visual Artse | 4.5 | THEA 2120 | Theatre History II | 4.5 |
| ARTS 1010 | Elementary Drawing | 4.5 | HUMS 1110, HUMS 1120, and HUMS 1150: Course can only be used to satisfy one requirement. Students interested in any of the transfer courses and degrees should work with both an academic advisor from MCC and from the school they wish to transfer to in order to select the best course transfer options. |  |  |
| ARTS 1020 | 2-D Design | 4.5 |  |  |  |
| ARTS 1110 | Art History-Ancient to Gothic-® | 4.5 |  |  |  |
| ARTS 1120 | Art History-Renaissance to Modern ${ }^{\text {® }}$ | 4.5 | Natural Sciences |  |  |
| CHIN 1110 | Beginning Chinese Ivo | 7.5 | BIOS 1010 | Introduction to Biology ${ }^{\text {® }}$ © | 6.0 |
| DIMA 1411 | History of Animation | 4.5 | BIOS 1010L | Introduction to Biology Lab | 0.0 |
| ENGL 1310 | Creative Writing | 4.5 | BIOS 1111 | Biology I | 5.0 |
| ENGL 2450 | Introduction to Literature $\checkmark_{\text {B }}$ | 4.5 | BIOS 1111L | Biology I Lab | 0.0 |
| ENGL 2460 | Introduction to Short Stories | 4.5 | BIOS 1121 | Biology II | 5.0 |
| ENGL 2470 | Introduction to Women's Literature | 4.5 | BIOS 1121L | Biology II Lab | 0.0 |
| ENGL 2480 | Introduction to Drama Literature I | 4.5 | BIOS 1130 | Biology III | 5.0 |
| ENGL 2481 | Introduction to Drama Literature II | 4.5 | BIOS 1130L | Biology II Lab | 0.0 |
| ENGL 2490 | Introduction to Latin American Literature | 4.5 | BIOS 1250 | Environmental Biology ${ }^{\text {® }}$ | 4.5 |
| ENGL 2510 | American Literature | 4.5 | BIOS 1310 | Survey of Human Anatomy and Physiology | 5.0 |
| ENGL 2520 | American Literature II | 4.5 | BIOS 1310L | Survey of Human Anatomy and Physiology | 0.0 |
| ENGL 2530 | Ethnic Literature | 4.5 |  | Lab |  |
| ENGL 2610 | British Literature Ifo | 4.5 | BIOS 1400 | Introduction to Botany | 4.5 |
| ENGL 2620 | British Literature II | 4.5 | BIOS 1400L | Introduction to Botany Lab | 0.0 |
| ENGL 2900 | Special Topics in Literature | 4.5 | BIOS 2050 | Genetics ${ }^{\text {\% }}$ | 4.5 |
| ENGL 2901 | Special Topics in Writing | 4.5 | BIOS 2150 | Microbiology | 6.0 |
| FREN 1010 | Beginning French 1 ¢ | 7.5 | BIOS 2150L | Microbiology Lab | 0.0 |
| FREN 1020 | Beginning French IIP* | 7.5 | BIOS 2310 | Human Anatomy and Physiology I | 6.0 |
| FREN 2010 | Intermediate French 1 P\% | 4.5 | BIOS 2310L | Human Anatomy and Physiology I Lab | 0.0 |
| FREN 2020 | Intermediate French II* | 4.5 | BIOS 2320 | Human Anatomy and Physiology II | 6.0 |
| GERM 1010 | Elementary German IF\% | 7.5 | BIOS 2320L | Human Anatomy and Physiology II Lab | 0.0 |
| GERM 1020 | Elementary German IIF | 7.5 | CHEM 1010 | College Chemistry ${ }^{\text {® }}$ | 6.0 |
| HUMS 1000 | Humanities through the Artse | 4.5 | CHEM 1010L | College Chemistry Lab | 0.0 |
| HUMS 1100 | Classical Humanities $\underbrace{\wedge}$ | 4.5 | CHEM 1120 | Chemistry for the Health Sciences I | 3.0 |
| HUMS 1110 | Origins of the Humanities-* | 4.5 | CHEM 1120L | Chemistry for the Health Careers Lab | 0.0 |
| HUMS 1120 | The Humanities in the Medieval - | 4.5 | CHEM 1130 | Chemistry for Health Sciences II | 3.0 |

CHEM 1130L Chemistry for the Health Careers II Lab 0.0
CHEM $1210 \quad$ General Chemistry: Part I 2.0
CHEM 1210L General Chemistry: Part I Lab 0.0
CHEM 1211
CHEM 1211L
CHEM 1212
CHEM 1212L
CHEM 1220
CHEM 1220L
CHEM 2310
CHEM 2310L
CHEM 232A
CHEM 232AL
CHEM 232B
CHEM 232BL
CHEM 232C
CHEM 232CL
CHEM 233A
CHEM 233AL
CHEM 233B
CHEM 233BL
CHEM 233C
CHEM 233CL
ENGR 1010
ENGR 1020
ENGR 2010
ENGR 2020
GEOG 1150
GEOG 1160
GEOG 1210
PHYS 1010
PHYS 1010L
PHYS 110A
PHYS 110AL
PHYS 110B
PHYS 110BL
PHYS 110 C
PHYS 110CL
PHYS 111A
PHYS 111AL
PHYS 111B
PHYS 111BL
PHYS 111C
PHYS 111CL
PHYS 210A
PHYS 210AL
PHYS 210B
PHYS 210BL
PHYS 210C
PHYS 210CL
PHYS 211A
PHYS 211AL
PHYS 211B
PHYS 211BL
PHYS 211C
PHYS 211CL
SCIE 1010
SCIE 1010L
SCIE 1300
SCIE 1310
SCIE 1400
SCIE 1400 L
General Chemistry: Part II
General Chemistry: Part II Lab 0.0
General Chemistry I: Accelerated 6.0
General Chemistry I: Accelerated Lab 0.0
General Chemistry II
6.0

General Chemistry II Lab
0.0

Fundamentals of Organic Chemistry 6.0
Fundamentals of Organic Chemistry Lab 0.0
Organic Chemistry IA
Organic Chemistry IA Lab 0.0
Organic Chemistry IB
Organic Chemistry IB Lab 0.0
Organic Chemistry IC 2.5
Organic Chemistry IC Lab 0.0
Organic Chemistry IIA 2.5
Organic Chemistry IIA Lab 0.0
Organic Chemistry IIB
2.5

Organic Chemistry IIB Lab 0.0
Organic Chemistry IIC 2.5
Organic Chemistry IIC Lab 0.0
Introduction to Engineering Design 4.5
MATLAB Programming
4.5

Elements of Electrical Engineering I 4.5
Engineering Statics 4.5
Introduction to Physical Geography - Weather and 6.0 Climate ${ }^{-}$
Introduction to Physical Geography - Landforms ©
Introduction to Physical Geology-®
Applied Physics
4.5

Applied Physics Lab
Principles of Physics IA
2.5

Principles of Physics IA Lab 0.0
Principles of Physics IB
Principles of Physics IB Lab 0.0
Principles of Physics IC
2.5

Principles of Physics IC Lab 0.0
Principles of Physics IIA 2.5
Principles of Physics IIA Lab 0.0
Principles of Physics IIB 2.5
Principles of Physics IIB Lab 0.0
Principles of Physics IIC 2.5
Principles of Physics IIC Lab 0.0
General Physics IA 2.5
General Physics IA Lab 0.0
General Physics IB
2.5

General Physics IB Lab 0.0
General Physics IC 2.5
General Physics IC Lab 0.0
General Physics IIA 2.5
General Physics IIA Lab 0.0
General Physics IIB 2.5
General Physics IIB Lab 0.0
General Physics IIC 2.5
General Physics IIC Lab 0.0
Introduction to Physical Science ${ }^{\bullet}$ B $\quad 6.0$
Introduction to Physical Science Lab 0.0
Astronomyse 4.5
Astronomy Laboratory -

All courses in a sequence should be taken:
BIOS 1111/BIOS 1111L, BIOS 1121/BIOS 1121L and BIOS 1130/BIOS 1130L;
CHEM 1120/CHEM 1120L and CHEM 1130/CHEM 1130L;
CHEM 1210/CHEM 1210L and CHEM 1211/CHEM 1211L;

CHEM 1212/CHEM 1212L
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.

## Associate in Arts: Associate-to-Bachelors Degrees

The Liberal Arts/Academic Transfer (LATAA) degree provides a solid foundation for any bachelor's degree in the arts, humanities, or social sciences. These include fine arts, performing arts, history, political science, psychology, sociology, anthropology, geography, library science, early childhood education, or education with an emphasis in any of the areas previously listed.
Visit www.mccneb.edularticulation for a complete list of A-to-B Agreements and Transfer Guides along with their course listings and requirements.

## Liberal Arts/Academic Transfer (LATAA)

Award: Associate in arts degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This degree strengthens foundation skills, provides broad understanding, and develops thinking skills as students prepare for advanced sequences of courses at four-year institutions. Each transfer institution publishes requirements for admission, general education, and major concentration areas. Students 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.

## Graduation Requirements

General education 27.0

Major requirements 69.0
Total credit hours required 96.0

## General education requirements ( 27.0 credit hrs.)

Communications

| ENGL 1010 | English Composition I* | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II- | 4.5 |
| SPCH 1110 | Public Speaking © | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1310 | Intermediate Algebra, ${ }^{\text {A }}$ | 4.5 |
| Take MATH 1310 or higher level MATH course. For students planning to transfer to UNL, MATH 1410 Statistics is recommended. |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills $\bigcirc$ | 4.5 |
| INFO 1001 | Information Systems and L | 4.5 |

## Major requirements for Liberal Arts/Academic Transfer ( 69.0 credit hours)

Students should select courses from each of the following categories to meet the required credit hours. A total of 36.0 credits must be taken in the social sciences and humanities categories combined in order to receive the
Associate in Arts degree. Students should consult with an advisor or counselor to select courses that best meet their transfer needs.

## Quantitative/numeracy skills or major-related

Select 4.5 credit hours from the mathematics courses listed in transfer course options (p. 150) that meet a requirement for your chosen major. Refer to the transfer guide for the specific transfer program and college. If no additional math is required, select another major requirement.

## Social sciences

Select 9.0-27.0 credit hours from the social sciences courses listed in transfer course options (p. 150).

## Natural sciences

Select 12.0 credit hours from the natural sciences courses listed in transfer course options (p. 151). At least one course should include a lab.

## Humanities

Select 9.0-27.0 credit hours from the humanities courses listed in transfer course options (p. 151).

## Cultural studies

Select 4.5 credit hours from the cultural studies courses listed in transfer course options (p. 150).

## Electives

Select 12.0 credit hours. Elective credits may be selected from courses throughout the catalog, but students are strongly advised to consult with the fouryear college to which they plan to transfer when choosing particular courses. The degree plan to be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC.
Additional transfer information is available in Student Services or by visiting 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.

## Liberal Arts/Academic Transfer - Language Studies (LTLAA)

Award: Associate in arts degree
Program location: Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus
This degree offers a broad-based liberal arts education to students interested in pursuing language studies at a four-year college or university. Students build a solid foundation of knowledge in Spanish, French, or Japanese language and cultural studies. This program also prepares students to better communicate with non-English speaking clients and friends in business and social situations.

## Graduation Requirements

| General education | 27.0 |
| :---: | :---: |
| Major requirements | 69.5 |
| Total credit hours required | 96.5 |
| General education requirements (27.0 credit hrs.) |  |
| Communications |  |
| ENGL 1010 English Composition IS |  |
| ENGL 1020 English Composition II® |  |
| SPCH 1110 Public Speaking © |  |
| Quantitative/numeracy skills |  |
| MATH 1310 Intermediate Algebra $\bigcirc$ |  |
| Take MATH 1310 or higher level MATH course |  |
| Other |  |
| HMRL 1010 Human Relations Skills $\bigcirc$ ¢ |  |
| INFO 1001 Information Systems and Literacy ${ }^{\text {© }}$ |  |

Major requirements for Liberal Arts/Academic Transfer - Language Studies (69.5 credit hrs.)

## Humanities

Select one group:
Group 1:
FREN $1010 \quad$ Beginning French l- 7.5
FREN $1020 \quad$ Beginning French IIß $\quad 7.5$
FREN $2010 \quad$ Intermediate French lB 4.5
FREN 2020 Intermediate French IIß $\quad 4.5$
FREN $2030 \quad$ Intermediate French IIIß 3.5
Group 2:
JAPN 1010
JAPN 1020
JAPN 2010
Beginning Japanese I
Beginning Japanese II 7.5
JAPN 2020 Intermediate Japanese II 4.5
JAPN $2030 \quad$ Intermediate Japanese III 4.5
Group 3:
SPAN 1110
SPAN 1120
SPAN 2110

Elementary Spanish I•• 7.5
Elementary Spanish IIß
Intermediate Spanish IBO 4.5

Group 4:
SPAN $1410 \quad$ Spanish for High Beginners I 7.5
SPAN $1411 \quad$ Spanish for High Beginners II 7.5
An additional elective 4.5
With group 3 or 4, then take both:
SPAN 2120 Intermediate Spanish II丹 4.5
SPAN $2210 \quad$ Conversation Skills I 4.5

## Social sciences

Select 9.0 credit hours from the social sciences courses listed in Transfer course options (p. 150).
HIST 1080 Traditional and Modern Japan is recommended for Japanese majors. HIST 2200 Latin American History is recommended for Spanish majors.

## Quantitative/numeracy skills or major-related

Select 4.5 credit hours from the mathematics courses listed in Transfer course options that meet a requirement for your chosen major. Refer to the transfer guide for the specific transfer program and college. If no additional math is required, select another major requirement.

## Cultural studies

Select 4.5 credit hours from the cultural studies courses listed in Transfer course options (p. 150).

## Natural sciences

Select 12.0 credit hours from the natural sciences courses listed in Transfer course options (p. 151).

## Electives

Select 11.0 credit hours from the following:
FREN 2900 Special Topics in French variable
JAPN 2040 Intermediate Japanese IV 4.5

JAPN 2900 Special Topics in Japanese variable
SPAN 1810 Spanish Study Abroad variable
SPAN 1900 Special Topics in Spanish I variable
SPAN $2051 \quad$ Intermediate Spanish for Business II円 4.5
SPAN 2060 Intermediate Spanish for Healthcare IB 4.5
SPAN 2061 Intermediate Spanish for Healthcare IIß 4.5
SPAN 2220 Conversation Skills II 4.5
SPAN 2480 Cinematica 4.5
SPAN $2490 \quad$ Introduction to Latin American Literature 4.5
SPAN 2900 Special Topics in Spanish II variable

LANG
Courses of choice

## Associate in Science

## Liberal Arts/Academic Transfer (LATAS)

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

This degree strengthens foundation skills, provides broad understanding, and develops reasoning skills as students prepare for advanced studies in a natural sciences, mathematics, or science-dependent program. By taking the suggested courses below, students are 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, general education, and major concentration areas. Students should consult the catalogs of the transfer institution of their choice.

## Graduation Requirements

General education 27.0

Major requirements 69.0
Total credit hours required 96.0

General education requirements ( 27.0 credit hrs.)
Communications

| ENGL 1010 | English Composition 1-3 | 4.5 |
| :---: | :---: | :---: |
| ENGL 1020 | English Composition II- | 4.5 |
| SPCH 1110 | Public Speaking ${ }^{\text {© © }}$ | 4.5 |
| Quantitative/numeracy skills |  |  |
| MATH 1310 | Intermediate Algebra $\sim_{*}$ | 4.5 |
| Take MATH 1310 or higher level MATH course |  |  |
| Other |  |  |
| HMRL 1010 | Human Relations Skills ${ }_{\text {® }}$ © | 4.5 |
| INFO 1001 | Information Systems and Literacy ® $^{\text {© }}$ | 4.5 |

## Major requirements for Liberal Arts/Academic Transfer (69.0 credit hrs.)

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 select courses that best meet their transfer needs.

## Quantitative/numeracy skills/computer sciences

Select 4.5 credit hours from the mathematics courses listed in Transfer course options (p. 150).
Computer sciences courses are required for some majors; see specific articulation documents online.

## Social sciences

Select 9.0 credit hours from the social sciences courses listed in Transfer course options (p. 150).

## Humanities

Select 4.5 credit hours from the humanities courses listed in Transfer course options (p. 151).

## Natural sciences/quantitative/numeracy skills

Select 28.5 credit hours from the natural sciences/mathematics courses listed in Transfer course options (p. 151).
A minimum of 12.0 credit hours must be taken in the area of BIOS, CHEM, PHYS, or SCIE and must include at least one lab course.

## Cultural studies

Select 4.5 credits from the cultural studies courses listed in Transfer course options (p. 150).

## Electives

Select 18.0 credit hours.
Elective credits may be selected from courses throughout the catalog, but students are strongly advised to consult with the colleges to which they plan to transfer when choosing particular courses. The degree plan to be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC.

Additional transfer information is 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-to-Bachelors (A-to-B) 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 www.mccneb.edu/articulation for complete course listings and the requirements.
Associate in science transfer $\quad$ Four-year institution
agreements

| Pre-Agricultural Sciences (LAGAS) | University of Nebraska-Lincoln |
| :---: | :---: |
| Pre-Biology (LABAS) | University of Nebraska at Omaha |
| Pre-BioTechnology (LBTAS) | University of Nebraska at Omaha |
| Pre-Chemistry (LACAS) | University of Nebraska at Omaha |
| Pre-Clinical Laboratory Science (PSMT2) | University of Nebraska at Omaha University of Nebraska Medical Center |
| Pre-Engineering | University of NebraskaLincoln/Omaha campus |
| Pre-Architectural Engineering (PEARO) |  |
| Pre-Civil Engineering (PECVO) |  |
| Pre-Computer Engineering (PECPO) |  |
| Pre-Construction Engineering Technology (PECTO) |  |
| Pre-Construction - Management (PECMO) |  |
| Pre-Electronic Engineering (PEELO) |  |
| Pre-Math (LAMAS) | University of Nebraska at Omaha |
| Pre-Medicine (LAPMO) | University of Nebraska Medical Center |
| Pre-Nursing (LASNO) | University of Nebraska Medical Center |
| Pre-Physics (LAPAS) | University of Nebraska at Omaha |
| Teacher Preparation | University of Nebraska at Omaha |
| Pre-Elementary Education - see transfer guide |  |
| Pre-Secondary Education <br> Language Arts Endorsement <br> (LALAO) <br> Math Endorsement (LAEMO) <br> Natural Science Endorsement <br> (LANSO) <br> Social Sciences Endorsement <br> (LASSO) <br> Pre-Deaf or Hard of Hearing <br> Endorsement (LAPDO) |  |
| Pre-Veterinarian (PVAS1) | University of Nebraska-Lincoln/lowa State University |

## ONLINE DEGREES AND CERTIFICATES

Looking for instruction at times convenient to you? Online classes at
MCC provide the flexibility of setting your own weekly schedule. Study and learn at times that fit into your busy life. Online courses are held during regular quarter starting dates: September, December, March and June. Dedicated faculty members provide quality instruction through this learning option.

## Associate Degrees

Business Management - Financial Planning and Investment (p. 72) (BMFSO)
Business Transfer (p. 78) (BSTAA)
Computer Technology Transfer (p. 119):
Computer Science (p. 119) (CTSAS)
Information Assurance (p. 120) (CTIAS)
Management Information Systems (p. 120) (CTMAS)
Criminal Justice (p. 97):
Corrections (p. 97) (CJCNO)
Law Enforcement (p. 98) (CJLEO)
Early Childhood Educator (p. 144) (ECASI)
General Information Technology (p. 121) (GITAS)
General Studies/Academic Transfer (p. 95) (GSAAS)
Healthcare Information and Administration (p. 134) (HIAAS)
Health Information Management Systems (p. 135):
Medical Coding and Billing (p. 135) (HIMC1)
Medical Office Management (p. 136) (HIMO1)
Medical Language Specialist II (p. 136) (HIMLO)
Health Information Technology Professional (p. 139) (HITAS)
Information Technology (p. 126):
Data Center Management (p. 126) (ITDCO)
Database Administration (p. 127) (ITDAO)
Desktop Support Specialist (p. 127) (ITDSI)
Embedded Systems Technology (p. 128) (ITESO)
Programming for Database/Web (p. 129) (ITDWO)
Server Administration (p. 129) (ITSAO)
Web Development (p. 130) (ITWDO)
Liberal Arts/Academic Transfer - Associate in Arts (p. 152) (LATAA)
Liberal Arts/Academic Transfer - Associate in Science (p. 153) (LATAS)
Office Technology (p. 140):
Administrative Assistant (p. 141) (OTAAO)
Office Professional (p. 141) (OTOPO)

## Certificates of Achievement

Bookkeeping (p. 69) (BKPCE)
General Information Technology - Computer Programming (p. 122) (CPTCE)
Business Management (p. 70):
Financial Planning (p. 74) (BMPC1)
Financial Studies (p.74) (BMFCE)
Management Generalist (p. 75) (BMGCE)
Information Technology Technician (p. 131):
Data Center Technician (p. 131) (ITCCO)
Security Technician (p. 132) (ITSTO)
Server Technician (p. 132) (ITSRO)
Web Author (p. 133) (ITWCO)
Language Interpretation (p. 114) (LGICE)
Medical Office (p. 137):
Medical Coding and Billing Assistant (p. 137) (MOCB1)
Medical Office Assistant (p. 138) (MOOA1)
Medical Language Specialist I (p. 138) (MOLC1)
Microcomputer Office Technology (p. 142):
Office Applications Specialization (p. 142) (OTGC1)

## Career Certificates/Special Certifications

Financial Studies (p.77) (BMFCC)
General Management (p. 77) (BMGCC)
Health Information Technology (p. 140) (HITSD)
Immigration Laws, Policies, and Procedures (p. 85) (IPPCC)

## COURSES

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. 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.

## BIOS 1010 - Introduction to Biology ${ }^{\bullet}$, ©

5.0-3.0-6.0

Key:
course subject (BIOS)
course number (1010)
course title (Introduction to Biology)
course may be offered online ( $\because$ )
course may be offered in hybrid format (৫)
lecture/classroom hours per week (5.0-)
lab/clinical hours per week (-3.0-)
credit hours (-6.0)

Prerequisites - A prerequisite - or its equivalent - must be met before a student can register for a course. A prerequisite may be a specific high school course, another MCC course, a demonstrated proficiency, or acceptance into a certain program. Students must meet the prerequisite in effect for the quarter in which they are taking the course. Prerequisites may be waived on the basis of proficiency testing and/or the recommendation of an appropriate faculty member or academic dean.
Corequisites - Corequisites are required program courses that must be taken simultaneously, a grouping of courses that must all be taken within the same quarter. In some cases, previous completion of the required course is acceptable.
Hybrid courses - A hybrid course is a coordinated approach to learning, using both online technology and classroom interaction with faculty and peers. MCC hybrid courses meet face-to-face 50 percent of the traditional quarter's campus meetings; the other 50 percent of campus meeting time is replaced with online study and learning activities.

## ACCT - Accounting

## ACCT 1050-Bookkeeping ${ }^{*}$

3.0-0.0-3.0

Prerequisite: None
This course includes an introduction to the accounting cycle, basic procedures 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 $-B$

3.0-0.0-3.0

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. Students practice preparing payrolls and computing deductions. Emphasis is placed on actual preparation of payroll projects, including payroll tax returns.

## ACCT 1070 - Individual Income Tax Accounting

## 4.0-0.0-4.0

Prerequisite: None
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 l- - , ©

## 4.0-1.0-4.0

Prerequisite: None
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. NOTE: Students 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 1110 - Accounting II色, © <br> 4.0-1.0-4.0

Prerequisite: (1) ACCT 1100 with a grade of $C$ or better
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. NOTE: Students 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 1120 - Accounting IIIB, ©

4.0-1.0-4.0

Prerequisite: (1) ACCT 1110
This is the third of three accounting principles courses. The course content includes an 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. NOTE: Students 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 <br> 3.0-0.0-3.0 <br> Prerequisite: None

This course is an introduction to the QuickBooks software program. Students use the QuickBooks software to record transactions related to sales, sales invoicing, purchases, purchase invoicing, receipts, payments, and payroll. Students also use the software to generate financial statements and other financial reports. NOTE: 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 1220 - Spreadsheet Basics for Accounting and Business 3.0-0.0-3.0 <br> Prerequisite: None <br> Corequisite: ACCT 1110

In this course, students learn how to use spreadsheets to effectively organize and manipulate business data. Emphasis is on basic spreadsheet organization, commands, and functions related to managerial, financial, and accounting applications. NOTE: The co-requisite ACCT 1110 can be taken concurrently or have previously been completed.

## ACCT 280A - Ethics for Tax Practitioners $-\mathcal{B}$

## 1.0-0.0-1.0

Prerequisite: None
This course examines selected ethical issues as related to business and taxation.

## ACCT 2120 - Intermediate Accounting I

## 4.0-0.0-4.0

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. NOTE: ACCT 2120 may be taken concurrently with ACCT 1120.

## ACCT 2130 - Intermediate Accounting II

4.0-0.0-4.0

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

4.0-0.0-4.0

Prerequisite: (1) ACCT 2130
This course is a continuation of accounting theory and examines traditional and current subjects of controversy. Emphasis is on income taxes, leasing, accounting changes, and pensions.

## ACCT 2230 - Microcomputer Business Applications

4.0-0.0-4.0

Prerequisite: (1) INFO 1001
Corequisite: ACCT 1120
Students use accounting and spreadsheet software representative of that in use by small- and medium-sized businesses. Microcomputers are used for general ledger, accounts receivable and payable, and payroll transactions. Students create spreadsheets to be used in the general areas of analysis, forecasting, problem-solving, and decision-making. NOTE: Students considering taking ACCT 2230 who have not taken INFO 1001 but have work or high school experience with spreadsheets (and have met the other prerequisite) may still be able to take this course by contacting program faculty. The corequisite ACCT 1120 can be taken concurrently or have previously been completed.

## ACCT 2330 - Managerial Cost Accounting

4.0-0.0-4.0

Prerequisite: (1) ACCT 1120
This course emphasizes the role of the accountant or manager as decisionmaker. The course involves a study of relevant costs for decision-making; contribution margin approach to decision-making; absorption costing vs. 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 2800 - Ethics in Accounting and Business $\rightarrow$ <br> 4.5-0.0-4.5

Prerequisite: (1) 9.0 credit hours in either BSAD, ACCT, FINA, or ENTR
Ethical and moral issues are common in the business and accounting world. The conflicting goals of sales, success, growth, the rights and safety of consumers, the fiduciary responsibility of owners, and personal goals and ambition frequently drive individuals and businesses to ethical crossroads. Understanding the issues of ethics helps individuals and businesses deal with complex situations. (Crosslisted as BSAD 2800)

## ACCT 2900 - Special Topics in Accounting

Variable
Prerequisite: (1) Instructor approval
This course is designed to permit instruction in special content areas that are not appropriately treated in other accounting courses.

## ACCT 2940 - Business Plan Capstone <br> 1.5-0.0-1.5

Prerequisite: (1) Completion of $85.0+$ quarter hours in the business management or accounting associate degree option
The capstone course is an independent study course where students demonstrate competencies in the areas of management, finance, accounting, and report writing by developing a draft and finalized business plan on a studentfaculty 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 in Accounting

## Variable

Prerequisite: (2) Completion of at least 24.0 credit hours of the program's major requirements at MCC and instructor approval
The internship in the Accounting program is an advanced course and is expected to be taken in the second year of study. Students apply the principles, procedures, and rules learned in financial accounting, cost and managerial accounting, income tax accounting, or payroll accounting in an actual work environment. The work setting is in a public accounting office or the accounting department of a business or nonprofit organization. Students record the tasks performed in a notebook that the work supervisor and faculty sponsor review periodically 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. NOTE: Internship hours are arranged so as to award 3.0 to 4.5 credit hours for successful completion.

## ARAB - Arabic

## ARAB 1010 - Introduction to Arabic - B

7.5-0.0-7.5

Prerequisite: None
This course focuses on how to pronounce the Arabic sounds and the Arabic letters. In addition, the course introduces students to common Arabic greetings in standard and colloquial Arabic, common phrases, basic vocabulary, and some Arabic cultural aspects. Interactive DVDs that accompany the textbook can be used outside the classroom to practice listening exercises and writing drills. The textbook also contains images of calligraphic writing to be used as a model to follow as students work through them.

## ARCH - Architectural Design Technology

## ARCH 1000 - Appreciation of Architecture©

## 4.5-0.0-4.5

Prerequisite: None
Students taking this course explore the art of architecture, the design process, the language of architecture, how methods and materials shape buildings, the relationship between structural types, the use of space, and how architecture reflects the culture for which it was built.

## ARCH 1010 - Visual Literacy and Graphic Communication I

## 4.5-0.0-4.5

Prerequisite: None
This is a foundation course in visual communication in a black and white format. The hand drawing process employs both art and science to depict the built environment in a way that is pleasant and informative. Students in the course explore 2-D and 3-D visual communication using traditional and digital tools for each topic. Students are introduced to visual dialog strategies within the context of the built environment in historic and contemporary forms. Assignments focus on creative visual problem solving.

## ARCH 1015 - Visual Literacy and Graphic Communication II

## 4.5-0.0-4.5

Prerequisite: (1) ARCH 1010 or instructor approval
Visual Literacy and Graphic Communication II is a foundation course in visual communication in a digital color format that builds on the digital and analog techniques from Visual Literacy and Graphic Communication I. This course provides professionals and students with a clear guide to understanding the digital representation process for a variety of design drawings. The course highlights specific techniques by examining their role in the digital media representation process through current and emerging methods available in current software. This course provides students and professionals with tangible tools to explore digital media, including Adobe Illustrator, Photoshop, 3ds Max, Sketchup, AutoCAD, and Revit. Students in this course explore 2-D and 3-D visual communication using fixed and mobile digital tools for each topic. Students continue to develop a personal form of expression for visual dialog strategies within the context of the built environment in historic and contemporary forms.

## ARCH 1100 - Beginning AutoCAD

## 4.5-0.0-4.5

Prerequisite: None
This course introduces students to classical drawing techniques and computeraided design methods using AutoCAD software. Drawing terminology, text creation and editing, dimensioning, AutoCAD menus, file manipulations, plotting, and geometric construction techniques are used to create 2-D drawings.

## ARCH 1110 - Intermediate AutoCAD

## 4.5-0.0-4.5

Prerequisite: (1) ARCH 1100 or instructor approval
In this course, students learn 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)

4.5-0.0-4.5

Prerequisite: None
Hands-on experience with the Autodesk software provided in this course introduces students to the basic functions of building information modeling (BIM). Concentration is on building parts (walls, floors, roofs, doors, windows), and construction documents are produced from 3-D models.

## ARCH 1130 - Intermediate REVIT (Building)

## 4.5-0.0-4.5

Prerequisite: (1) ARCH 1120
Hands-on experience with Autodesk REVIT Building software allows students to continue the work started in Beginning REVIT. Students concentrate on schedules, family components, production of construction documents, and rendering.

## ARCH 1140 - Advanced REVIT Architecture <br> 4.5-0.0-4.5

Prerequisite: (1) ARCH 1130
Advanced REVIT architecture encourages students to advance their skill level beyond fundamental technical skills to an increased understanding of building information modeling in collaboration with other advanced users. The curriculum presents a set of advanced problems involving typical issues encountered in contract document production in a multi-user environment in the architecture, engineering, and construction industries. Students are encouraged to explore personal areas of interest within the course objectives.

## ARCH 1150 - Advanced AutoCAD

## 4.5-0.0-4.5

Prerequisite: (1) ARCH 1110
This course offers students the opportunity to use and understand 2-D and 3-D information about critical building assembly details used in commercial projects to produce construction documents, design and develop custom details, coordinate specification information, and revise existing details to conform to current architecture engineering and construction industry standards. Students use hand drawn, 2-D digital and 3-D digital tools interactively to prepare clearly drawn graphic details, assemble accurate information for coordination with other parts of the building design, specify materials, and develop prototype details to address unique construction conditions. Students are encouraged to explore personal areas of interest within the course objectives.

## ARCH 1200 - Wood-Frame Architecture®

## 9.0-0.0-9.0

Prerequisite: (2) ARCH 1000 and ARCH 1110
Students investigate 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® <br> \section*{9.0-0.0-9.0}

Prerequisite: (1) ARCH 1200
Students design and graphically document several aspects of commercial architecture: steel and masonry structure, electrical, plumbing, and HVAC.

## ARCH 2420 - Renovation Architecture

## 8.0-0.0-8.0

Prerequisite: (1) ARCH 1200
Students encounter the problems involved in changing the usage of a building, including antique or dangerous materials, specification writing, ADA and other codes, and cost estimating.

## ARCH 2520 - Beginning 3-D Studio Max

4.0-0.0-4.0

Prerequisite: (1) ARCH 1110
Hands-on experience with this 3-D modeling, rendering, and animation software introduces students to the creation of 3-D models, materials, lighting, and key frame animation.

## ARCH 2530 - Intermediate 3-D Studio Max

4.0-0.0-4.0

Prerequisite: (1) ARCH 2520
Students continue the work they began in ARCH 2520 by designing, developing, and polishing a project that demonstrates their ability to create 3-D models and animations.

## ARCH 2600 - High-Rise Architecture®

8.0-0.0-8.0

Prerequisite: (1) ARCH 1200
Students focus on vertical buildings: structure, mechanical core, vertical transportation, egress, fire protection, and parking.

## ARCH 2700 - Construction Detailing I

4.5-0.0-4.5

Prerequisite: (2) ARCH 1100 and ARCH 1200
Corequisite: ARCH 1130

This course offers students the opportunity to use and understand information about critical building assembly details used to produce construction documents, design and develop custom details, coordinate specification information, and revise existing details to conform to current architecture engineering and construction industry standards. The assemblies considered are typical of residential construction. Students use traditional and digital tools to prepare clearly drawn graphic details, assemble accurate information for coordination with other parts of the building design, specify materials, and develop prototype details to address unique construction conditions. Students are encouraged to explore personal areas of interest within the course objectives.

## ARCH 2710 - Construction Detailing II

## 4.5-0.0-4.5

Prerequisite: (3) ARCH 1100, ARCH 1130, and ARCH 2410
This course offers students the opportunity to use and understand information about critical building assembly details used to produce construction documents, design and develop custom details, coordinate specification information, and revise existing details to conform to current architecture engineering and construction industry standards. Assemblies considered are typical of commercial construction. Students use traditional and digital tools to prepare clearly drawn graphic details, assemble accurate information for coordination with other parts of the building design, specify materials, and develop prototype details to address unique construction conditions. Students are encouraged to explore personal areas of interest within the course objectives.

## ARCH 2720 - Construction Detailing III

4.5-0.0-4.5

Prerequisite: (4) ARCH 1110, ARCH 1130, ARCH 1200, and ARCH 2410
This course offers students the opportunity to use and understand information about critical building assembly details used in the procurement, construction contract negotiations, construction administration, construction observation, and close-out phases of commercial projects to produce construction documents, design and develop custom details, coordinate specification information, and revise existing details to conform to current architecture engineering and construction industry standards. Students use traditional and digital tools to prepare clearly drawn graphic details, assemble accurate information for coordination with other parts of the building design, specify materials, and develop prototype details to address unique construction conditions. Students are encouraged to explore personal areas of interest within the course objectives.

## ARCH 2900 - Special Topics in ARCH

## Variable

Prerequisite: (2) ARCH 1110 and instructor approval
This course permits instruction in special content areas not included in other courses in the Architectural Design Technology program.

## ARTS - Art

## ARTS 1000 - Introduction to the Visual Arts©

## 4.5-0.0-4.5

Prerequisite: None
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, changes in art over time, and the relationship of the arts and society.

## ARTS 1010 - Elementary Drawing

## 2.5-6.0-4.5

## Prerequisite: None

Elementary Drawing is a foundational course in objective drawing where students use various media, such as charcoal, graphite, conte, and ink. The course focuses on formal elements of line, shape, form, value, texture with the intent of developing dexterity, and perception. Subject matter mainly includes objects, still life, and spatial issues. Students learn about figure/ground relationships, relative position and proportion, linear perspective, and light effects on form and space. Assignments include working from observation, but also visualization and compositional drawing strategies with reference to historic and contemporary drawing issues. Students are encouraged to find personal solutions to set problems, while developing critique skills. (Formerly Drawing)

ARTS 1020-2-D Design
2.5-6.0-4.5

Prerequisite: None
The course 2-D Design is a foundational course that focuses on the elements and principles of design in order to prepare students for advanced study in the visual arts. Students are introduced to 2-D concepts and progress to more complicated problems involving color theory and various media. Emphasis is also placed on visual communication, idea building, and critical analysis in the context of historic and contemporary art and design.

ARTS 1030-3-D Design
2.5-6.0-4.5

Prerequisite: None
This course is an introduction to 3-D design, concentrating 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. (Formerly 3-D Studio)

## ARTS 1040 - New Media Design

## 2.5-6.0-4.5

Prerequisite: None
This course is an introduction to the aesthetic, conceptual, and technical foundations of new media art making. Today new technologies are developed at fast rates and artists are adopting this ever-changing media to make art. In this course, students explore these cutting-edge technologies through the completion of new media art projects. (Formerly 4-D Studio)

## ARTS 1050 - Creative Careers

4.5-0.0-4.5

Prerequisite: None
Creative Careers introduces students to a wide range of career options for imaginative professionals. The purpose of this course is to destroy the myth of the starving artist by investigating career fields that allow one to generate income through creative endeavors. Guest speakers who use right-brain thinking in the workplace, including professional artists, graphic designers, museum and gallery administrators, shop owners, art educators, and business professionals, visit classes on a regular basis.

## ARTS 1110 - Art History-Ancient to Gothic - , © <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course surveys the major developments in painting, sculpture, and architecture from Paleolithic cave paintings through the European Middle Ages with an introduction to the arts of Asia. Students gain an understanding of formal analysis of visual communication and the use of visual arts in social and historical contexts. NOTE: It is recommended that students take ENGL 1020 prior to taking ARTS 1110 because the level of reading and writing for this course requires a solid foundation in both.

## ARTS 1120 - Art History-Renaissance to Modern $-\mathcal{B}$ <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course surveys the major developments in painting, sculpture, and architecture from the European Renaissance into the modern era, introducing the arts of Africa and the native peoples of the Americas. Students gain an understanding of the formal analysis of visual communication and the use of visual arts in social and historical contexts. NOTE: It is recommended that students take ENGL 1020 prior to taking ARTS 1120 because the level of reading and writing for this course requires a solid foundation in both.

## ARTS 1130 - Native American Art

4.5-0.0-4.5

Prerequisite: None
This course examines the material culture of various indigenous peoples of North and South America. Special attention is given to Northern Plains Indians and Mesoamerican cultures. Students gain an understanding of the formal analysis of art and the use of visual communication in social and historical contexts. NOTE: It is recommended that students take ENGL 1020 prior to taking ARTS 1130 because the level of reading and writing for this course requires a solid foundation in both. (Formerly Art of the Americas)

## ARTS 2010 - Life Drawing

## 2.5-6.0-4.5

Prerequisite: (1) ARTS 1010; ARTS 2110 Intermediate Drawing is recommended but not mandatory
This drawing class emphasizes drawing the human form using 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, Conte crayon, ink, and pastels.

## ARTS 2020 - Elementary Painting

2.5-6.0-4.5

Prerequisite: (2) ARTS 1010 and 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 <br> 2.5-6.0-4.5 <br> Prerequisite: (1) ARTS 1010

This course introduces water media to beginning students. Students 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

2.5-6.0-4.5

Prerequisite: (1) ARTS 1030
This beginning sculpture course emphasizes hands-on studio work that results in finished pieces of sculpture. Most of the activity revolves 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, and electronics.

## ARTS 2040 - Elementary Printmaking <br> 2.5-6.0-4.5

Prerequisite: (2) ARTS 1010 and ARTS 1020
Elementary Printmaking teaches the theory and practice of traditional printmaking. Students create multiple printed images on paper, fabric, and other surfaces.
This course provides an introduction to relief, intaglio, and screen print processes. Photographic and digital print processes, pronto plate lithography, and monoprinting are also explored.

## ARTS 2050 - Elementary Ceramics

## 2.5-6.0-4.5

## Prerequisite: None

This course is an introduction to basic principles, concepts, history, and skills of studio ceramics that also surveys historical and contemporary approaches and concerns. Students fabricate a variety of projects, including vessel-making (handbuilt and wheel-thrown) and sculptural techniques. They also observe various firing and finishing processes. Basic health and safety issues are addressed.

## ARTS 2060 - Elementary Jewelry

## 2.5-6.0-4.5

Prerequisite: None
This course introduces students to the art of jewelry design. Students become familiar with jewelry design from the past to contemporary trends. Various techniques, including etching, soldering, casting, piercing, and stone setting, are taught. Students become aware of how to operate tools and machinery in jewelry construction. Emphasis is on design principles including contrast, emphasis, repetition (pattern), and balance. Critical thinking, aesthetics, and craftsmanship are the core of jewelry design.

## ARTS 2110 - Intermediate Drawing <br> 2.5-6.0-4.5

Prerequisite: (1) ARTS 1010
Intermediate Drawing continues the study of the skills acquired in Elementary Drawing with an emphasis on the use of color and mixed media. Exposure to digital media drawing tools is encouraged but optional. Subject matter includes objects, still life, spatial issues and may include the figure. Emphasis is placed on formal composition, visual communication, and creativity as well as observational drawing. Modern and contemporary drawing strategies are also explored. Critiques and group discussions address form and content as well as methods of visual communication. Students continue to be encouraged to find personal solutions to drawing problems and to develop at least one project of their own design.

## ARTS 2120 - Intermediate Painting <br> 2.5-6.0-4.5

Prerequisite: (1) ARTS 2020
This studio course builds on the technical skills and concepts learned in Elementary Painting. Emphasis is on expanding color and paint manipulation skills with more emphasis on content. Exposure to mixed media and digital media drawing tools is encouraged but optional. Subject matter may include objects, still life, spatial issues, the figure and non-objective abstraction. Modern and contemporary painting strategies are explored and some projects may be theme
based. The purpose of this course is to create an environment where student painters can synthesize ideas from prior learning and problem-solve in ways that more closely resemble the methods of professional studio painters. Critiques and group discussions address form and content as they relate to visual communication. Students are encouraged to find personal solutions to painting problems and to develop at least one project of their own design.

## ARTS 2130 - Intermediate Sculpture

2.5-6.0-4.5

Prerequisite: (1) ARTS 2030
This hands-on studio course is a continuation of ARTS 2030. A wider range of choices are left to the individual within a structured environment of criticism and instruction. Students are encouraged to explore personal areas of interest. They are required to develop a familiarity with the history of sculpture and master chosen sculpture techniques.

## ARTS 2140 - Intermediate Printmaking

2.5-6.0-4.5

Prerequisite: (1) ARTS 2040
This course builds on the technical skills and concepts learned in ARTS 2040. Students focus on expanding their understanding of intaglio, relief, screen printing, monoprinting and/or plate lithography to create prints that are both technically and conceptually complex. The instructor assists each member of the class in developing an individual body of printed work that reflects their personal and technical interests. Students continue to develop an understanding of historical and contemporary printmaking as well as equipment maintenance and shop upkeep.

## ARTS 2150 - Intermediate Ceramics

## 2.5-6.0-4.5

Prerequisite: (1) ARTS 2050
This course continues and deepens the exploration of skills, concepts, and history of studio ceramics begun in ARTS 2050. Students are coached in problemseeking and problem-solving and encouraged to identify and negotiate the path(s) to creation they wish to take forward. In addition to learning to plan and fabricate more complex forms, students participate in loading and firing electric and gas (when available) kilns, discuss material and equipment sourcing, and become aware of opportunities for continuing their studio practice in and out of the academic setting.

## ARTS 2160 - Intermediate Jewelry

2.5-6.0-4.5

Prerequisite: (1) ARTS 2060
This course is designed for students who have mastered the techniques and processes taught in Elementary Jewelry. It stresses creative solutions to more advanced design problems.

## ARTS 2220 - Art Gallery Management

2.5-6.0-4.5

Prerequisite: None
This course introduces gallery management, including planning, preparing, installing, and publicizing exhibitions. Students gain practical experience at MCC's Elkhorn Valley Campus Gallery of Art and Design. Periodic field trips to other galleries are required.

## ARTS 2560 - Portfolio Development and Professional Practice

2.5-6.0-4.5

Prerequisite: (1) Instructor approval
This course prepares students to build a comprehensive, professional presentation of their work using skills and concepts developed in earlier visual arts coursework. In addition, the course covers legal, financial, and ethical issues for the self-employed artist and for the artist embarking on a job search.

## ARTS 2900 - Special Topics in Art

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other Art courses.

## ARTS 2981 - Internship

## Variable

Prerequisite: (1) Instructor approval
Students apply the principles learned in arts entrepreneurship in a workplace setting. The work setting can be public, private, or nonprofit as long as it is appropriate to arts entrepreneurship. Based on state guidelines, students must complete 40 hours of work for each credit hour earned in this course.

## AUTB - Auto Collision Technology

AUTB 1040 - Auto Collision Repair Welding
2.0-3.0-3.0

Prerequisite: None
Students learn techniques of oxy-acetylene cutting and welding for automotive applications. Students study and practice the theory and use of metal inert gas (MIG) welding, the plasma-cutting torch, and resistance welding in the repair of high-strength steel structural and nonstructural body components. In addition, this course provides practice in advanced automotive welding skills, including various types of position welds.

## AUTB 1100 - Structural Repair I

2.0-3.0-3.0

## Prerequisite: None

Students learn to analyze various types of vehicle damage, interpret dimension specification sheets, and select and set up various types of measuring systems used for damage analysis.

## AUTB 1110 - Structural Repair II

2.0-3.0-3.0

Prerequisite: (1) AUTB 1100
Students learn the techniques of anchoring and pulling a damaged vehicle frame. Students work with high-strength steel and learn full and partial panel replacement.

## AUTB 1200 - Nonstructural Repair I

4.0-6.0-6.0

## Prerequisite: None

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

4.0-6.0-6.0

Prerequisite: (1) AUTB 1200
This course continues to build skills acquired in the basic course. Students learn the techniques of door skin replacement and how to work with trim and hardware. Other related subjects are covered.

## AUTB 1220 - Nonstructural Repair III

4.0-6.0-6.0

Prerequisite: (2) AUTB 1040 and 1210 or equivalent
This course focuses on evaluating major body damage and determining the necessary repairs. The complete job is stressed, from body repair to final refinishing.

## AUTB 1300 - Street Rod/Restoration I

2.0-3.0-3.0

Prerequisite: None
Constructing or restoring a good street rod requires starting with a good classic auto and a good design. This course provides students 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

2.0-3.0-3.0

## Prerequisite: (1) AUTB 1110 or equivalent

Students analyze the damaged vehicle in-depth. They practice major damage repair including alignment and straightening of unitized bodies. Students learn the alignment of door and window openings.

## AUTB 2230 - Nonstructural Repair IV

## 4.0-6.0-6.0

Prerequisite: (1) AUTB 1220
This class requires students to repair and refinish collision damage equal to 30 flat-rate hours. It stresses MIG welding and suspension damage.

## AUTB 2240 - Nonstructural Repair V

4.0-6.0-6.0

Prerequisite: (2) AUTB 2230 and 45.0 credits of AUTB courses
In this class, students are required to repair collision damage equal to 40 flat-rate hours. It covers restraint systems and glass installation.

## AUTB 2241 - Nonstructural Repair VI

## 4.0-6.0-6.0

Prerequisite: (1) AUTB 2240
This class requires students to complete 60 flat-rate hours of collision repairs. It covers frame and suspension alignment, electrical systems, heating, and air conditioning.

## AUTB 2300 - Automotive Refinishing I

2.0-3.0-3.0

Prerequisite: None
Students are introduced to EPA, personal health, and safety equipment regulations. It covers introductions to finish systems, metal prep, sealers and primers, and masking techniques.
AUTB 2310 - Automotive Refinishing II
4.0-6.0-6.0

Prerequisite: (1) AUTB 2300
This course is a continuation of Automotive Refinishing I with emphasis placed on solving paint application problems. Students practice paint mixing, matching and application, finish defects, and causes and cures.

## AUTB 2340 - Automotive Custom Painting

## 2.0-3.0-3.0

Prerequisite: (1) AUTB 2310 or any one of the following: associate in auto collision technology; ASE-certified refinish technician; or five years documented work as a refinish technician
This course gives advanced students insight and experience in the area of custom painting of automobiles, motorcycles, street rods, and other vehicles. It covers masking, paint types, pin striping, design layout, stencils, and mixing custom colors.
AUTB 2450 - Collision Estimating I
2.0-3.0-3.0

Prerequisite: None
Students learn the systematic approach to analyzing collision damage and creating a damage report manually. It covers different types of damage, plan for repairs, repair or replace decisions, and use of crash guides.

## AUTB 2460 - Collision Estimating II

3.0-0.0-3.0

Prerequisite: (1) AUTB 2450
Students learn how estimating affects shop sales, production, staffing, facility and profitability in the collision repair field.

## AUTB 2550 - Electrical and Mechanical Systems

## 2.0-3.0-3.0

Prerequisite: None
This course introduces mechanical and electrical systems of the automobile. It covers steering, brakes, drive line, air bags, and electrical components.

## 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 auto collision courses.

## AUTB 2981 - Auto Collision Internship

## Variable

Prerequisite: (2) AUTB 2230 and instructor approval
The internship program provides students with the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. To develop an internship to meet their academic and career goals, interested students must contact program faculty. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

## AUTT - Automotive Technology

## AUTT 1010 - Introduction to Auto Service and Minor Repair®

2.0-3.0-3.0

Prerequisite: None
Students registering for this course must have a valid driver's license. This beginning class deals with many of the basic elements of the auto repair trade. Items covered are safety, chemicals, and bulb replacement. This class also encourages the soft skills needed in today's modern workplaces, such as attitude, ethics, professionalism, and on-the-job communication. Individualized hands-on
laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1010, 1210, 1220, and 1310. These classes run consecutively in the same quarter. Concurrent enrollment is allowed in AUTT 1210.

## AUTT 1210 - Automotive Electricity and Electronics 1 ©

2.0-3.0-3.0

Prerequisite: None
Students registering for this course must have a valid driver's license. This course covers basic electrical theory, including Ohm's Law and basic dc circuits. Through the use of specially designed electrical trainers and hands-on experience, students investigate electrical systems common to the automobile. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1010, 1210, 1220, and 1310. These classes run consecutively in the same quarter. Concurrent enrollment is allowed in AUTT 1010.

## AUTT 1220 - Automotive Electricity and Electronics II®

2.0-3.0-3.0

Prerequisite: (2) AUTT 1210 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course explains and demonstrates theory, construction, operation, and testing of batteries, starters, and charging systems. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1010, 1210, 1220 , and 1310. These classes run consecutively in the same quarter.

## AUTT 1230 - Automotive Electricity and Electronics III® 2.0-3.0-3.0

Prerequisite: (2) AUTT 1220 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the fundamentals of automotive computers and their relationship with sensor inputs and actuator outputs along with advanced diagnostic procedures of electronic body electrical systems. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1230, 1620, 1710, and 2310. These classes run consecutively in the same quarter.

## AUTT 1240 - Automotive Electricity and Electronics IV® <br> 2.0-3.0-3.0

Prerequisite: (2) AUTT 1230 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the fundamentals of automotive computers and their relationship with sensor inputs and actuator outputs along with advanced diagnostic procedures of electronic body electrical systems. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1240, 1630, 1720, and 2830. These classes run consecutively in the same quarter.

## AUTT 1310 - Powertrain Repair 1 ©

## 2.0-3.0-3.0

Prerequisite: (2) AUTT 1010 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers tire and wheel balancing, inspection of steering, powerassisted steering and suspension parts, tire wear, and pre-alignment inspection. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1010, 1210, 1220, and 1310. These classes run consecutively in the same quarter.

## AUTT 1320 - Powertrain Repair II®

2.0-3.0-3.0

Prerequisite: (3) AUTT 1220 and AUTT 1310 both with grades of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers basic theory and operation of engines, transmissions, and drivetrains, including 4 stroke theory, basic ignition systems, timing chain and belt operation, transmission gear flow for both manual and automatics, and hydraulic principles. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1510, 1520, 1320, and 1330. These classes run consecutively in the same quarter.

## AUTT 1330 - Powertrain Repair III® <br> 2.0-3.0-3.0

Prerequisite: (2) AUTT 1320 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Students perform maintenance and light repair on the following: manual transmissions, automatic transmissions, differentials, axles, and engines. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1510, 1520, 1320, and 1330. These classes run consecutively in the same quarter.

## AUTT 1510 - Brake Repair I®

## 2.0-3.0-3.0

Prerequisite: (2) AUTT 1010 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Students spend classroom and lab hours on the proper repair and diagnosis of modern brake systems. Students cover basic operation and diagnosis and perform brake rotor and drum resurfacing. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1510, 1520, 1320, and 1330. These classes run consecutively in the same quarter. Students may be enrolled in AUTT 1320 concurrently.

## AUTT 1520 - Brake Repair II® <br> 2.0-3.0-3.0

Prerequisite: (3) AUTT 1220 and 1510 both with grades of $C$ or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Students spend classroom and lab hours on the proper repair and diagnosis of modern brake systems, studying components such as power boosters and master cylinders. The course covers the design, operation, and testing of anti-lock brake and traction control systems using a variety of testing equipment. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1510, 1520, 1320, and 1330. These classes run consecutively in the same quarter.

## AUTT 1620 - Heating and Air Conditioning 1 ©

2.0-3.0-3.0

Prerequisite: (3) AUTT 1230 and AUTT 1310 with a grade of $C$ or better in both, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Automotive heating and air conditioning theory of operation, diagnostic equipment, and minor service are covered. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1230, 1620, 1710, and 2310. These classes run consecutively in the same quarter.

## AUTT 1630 - Heating and Air Conditioning II®

## 2.0-3.0-3.0

Prerequisite: (2) AUTT 1620 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Automotive heating and air conditioning repair are studied extensively in this course. Individualized hands-on laboratory training utilizing live work is included.
NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1240, 1630, 1720, and 2830. These classes run consecutively in the same quarter.

## AUTT 1710 - Engine Mechanical Service I®

## 2.0-3.0-3.0

Prerequisite: (2) AUTT 1330 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers minor engine repair, such as gasket replacement, compression testing, and timing belt replacement. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1230, 1620, 1710, and 2310. These classes run consecutively in the same quarter.

## AUTT 1720 - Engine Mechanical Service II®

2.0-3.0-3.0

Prerequisite: (2) AUTT 1710 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the diagnosis and repair of major engine components in compliance with the NATEF standards for engine repair. The course includes individualized hands-on classroom and laboratory training to disassemble, measure, and identify internal components and failure concerns. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT $1240,1630,1720$, and 2830 . These classes run consecutively in the same quarter.

## AUTT 1730 - Engine Mechanical Service III®

2.0-3.0-3.0

Prerequisite: (2) AUTT 1720 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
The course includes individualized hands-on laboratory training for major engine repair utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1730, 2410, 2420, and 2810. These classes run consecutively in the same quarter.

## AUTT 2310 - Suspension Systems®

2.0-3.0-3.0

Prerequisite: (3) AUTT 1310 and AUTT 1230 both with grades of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the operation, diagnosis, and repair of front and rear suspension systems. Students also study manual and power steering systems, tire wear, and four-wheel alignment. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1230, 1620, 1710, and 2310. These classes run consecutively in the same quarter.

## AUTT 2410 - Engine Performance 1 ©

## 2.0-3.0-3.0

Prerequisite: (3) AUTT 1240 and AUTT 1330 both with grades of $C$ of better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the basics of engine performance. The interrelationships of the electronic control systems and the use of specialized test equipment to diagnose drivability problems are emphasized. Fuel injection, ignition, air induction, fuel system components, fuel pump testing and injector testing are studied. Individualized hands-on laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1730, 2410, 2420, and 2810. These classes run consecutively in the same quarter.

## AUTT 2420 - Engine Performance II®

2.0-3.0-3.0

Prerequisite: (2) AUTT 2410 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the basics of engine performance. The interrelationships of the electronic control systems, sensors, evaporative controls, EGR, air injection and emission control systems, and the use of specialized test equipment to diagnose drivability problems are emphasized. Individualized hands-on laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1730, 2410, 2420 , and 2810. These classes run consecutively in the same quarter.

## AUTT 2430 - Engine Performance III®

## 2.0-3.0-3.0

Prerequisite: (2) AUTT 2420 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
Major phases of engine analysis, performance, fuel systems, emission controls, and five-gas exhaust analysis are applied 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. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 2430, 2815, 2840, and 2845. These classes run consecutively in the same quarter.

## AUTT 2810 - Manual Transmission Repair 1 © <br> \section*{2.0-3.0-3.0}

Prerequisite: (2) AUTT 1330 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the operation, diagnosis, and repair of manual transmissions and clutches. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1730, 2410, 2420, and 2810. These classes run consecutively in the same quarter.

## AUTT 2815 - Manual Transmission Repair II®

2.0-3.0-3.0

Prerequisite: (2) AUTT 2810 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers types of drivelines, differentials, CV joints, transfer cases, and four-wheel drive systems. The course includes individualized hands-on laboratory training utilizing live work. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 2430, 2815, 2840, and 2845. These classes run consecutively in the same quarter.

## AUTT 2830 - Automatic Transmission Repair 1 ® <br> 2.0-3.0-3.0

Prerequisite: (3) AUTT 1240 and AUTT 1330 both with grades of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers the basic diagnosis of operation of front and rear wheel drive transmissions. Torque converters, hydraulic systems, repair, and diagnosis are explored in the course of study. Individualized hands-on laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT 1240, 1630, 1720, and 2830. These classes run consecutively in the same quarter.

## AUTT 2840 - Automatic Transmission Repair II®

2.0-3.0-3.0

Prerequisite: (2) AUTT 2830 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers industry standards for overhaul of automatic transmissions. This course covers theory and associated drive system components. Overhaul and repair are also included to enhance the students' skills. Individualized handson laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT $2430,2815,2840$, and 2845 . These classes run consecutively in the same quarter.

## AUTT 2845 - Automatic Transmission Repair III®

2.0-3.0-3.0

Prerequisite: (2) AUTT 2840 with a grade of C or better, or program director approval; and current acceptable completion score on the S/P2 Mechanical Safety and Pollution Prevention course
This course covers theory and associated drive system components. Removal and replacement are also included to enhance the students' skills. Individualized hands-on laboratory training utilizing live work is included in this course. NOTE: In order to assist in progression through the automotive program, it is advised that students enroll in the following AUTT courses during the same quarter: AUTT $2430,2815,2840$, and 2845 . These classes run consecutively in the same quarter.

## AUTT 2900 - Special Topics in AUTT <br> Variable

This course is designed to permit instruction in special content areas not included in other courses of the Automotive Technology program.

## AUTT 2981 - On-The-Job Training/Work Experience

0.0-40.0-8.0

Prerequisite: (8) AUTT 1010, AUTT 1210, and AUTT 1510 with minimum grades of C; completion of a minimum of 18.0 credits of AUTT coursework; 2.5 or higher GPA; instructor approval; an approved work site; and valid driver's license
The internship program provides students with the opportunity to apply their 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. NOTE: This course can be completed at the South Omaha Campus for those who qualify. An approved worksite includes any site where students have the potential to apply the skills learned in the AUTT 1010, AUTT 1210, and AUTT 1510 classes. Special consideration for other worksites is subject to instructor's approval. Students must also possess all tools on the internship tool list and an acceptable completion score on the S/P2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

## BIOS - Biology

BIOS 1010 - Introduction to Biology $\bullet$, ©
5.0-3.0-6.0

Prerequisite: None
Corequisite: BIOS 1010L
Students registering for BIOS 1010 must complete the laboratory component of the course: students taking BIOS 1010 on-campus must register for either an oncampus or online section of BIOS 1010L, while students taking BIOS 1010 online or in the hybrid formats do not need to sign up for a separate lab course because the lab is already included. Developing a good understanding of the process of life requires students 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.

## BIOS 1010L - Introduction to Biology Lab <br> 0.0-0.0-0.0

Prerequisite: (1) College-level reading, writing, and math proficiency Corequisite: BIOS 1010
This course is the laboratory component to accompany BIOS 1010 when taken on campus. Students taking BIOS 1010 online or in the hybrid format should not sign up for this course as lab is included in those formats. Laboratory activities include ecology, molecular biology, cell structure and function, genetics, and evolution to coincide with the lecture portion of the course.

## BIOS 1111 - Biology I <br> 4.0-3.0-5.0

Prerequisite: (1) College-level reading, writing, and math proficiency

## Corequisite: BIOS 1111L

This general biology course is taught in a three-course sequence: BIOS 1111, BIOS 1121, and BIOS 1130. All three courses must be successfully completed to transfer as a two-semester general biology course. In the first course in the sequence, students study the cellular, molecular, and genetic bases for life process. Students registering for this course must also register for BIOS 1111L, which is the laboratory component of the course.

## BIOS 1111L - Biology I Lab

## 0.0-0.0-0.0

Prerequisite: (1) College-level reading, writing, and math proficiency Corequisite: BIOS 1111
This course is the laboratory component to accompany BIOS 1111. Students study the cellular, molecular, and genetic bases for life process. Students registering for this course must also register for BIOS 1111, which is the lecture component of the course.

## BIOS 1121 - Biology II

## 4.0-3.0-5.0

Prerequisite: (2) BIOS 1111 and college-level reading, writing, and math proficiency
Corequisite: BIOS 1121L
This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121, and BIOS 1130. All three courses must be successfully completed to transfer as a two-semester general biology course. In this second course in the
sequence, students study ecology and evolutionary biology. Students registering for this course must also register for BIOS 1121L, which is the laboratory component of the course.

## BIOS 1121L - Biology II Lab

0.0-0.0-0.0

Prerequisite: (2) BIOS 1111; and college-level reading, writing, and math proficiency
Corequisite: BIOS 1121
This is the laboratory component to accompany BIOS 1121. Students study the cellular, molecular, and genetic bases for life process. Students registering for this course must also register for BIOS 1121, which is the lecture component of the course.

## BIOS 1130 - Biology III

## 4.0-3.0-5.0

Prerequisite: (2) BIOS 1121; and college-level reading, writing, and math proficiency
Corequisite: BIOS 1130L
The last in a three-course sequence, this course emphasizes structure and function of plant and animal organ systems. Students registering for this course must also register for BIOS 1130L, which is the laboratory component of the course.

## BIOS 1130L - Biology II Lab

0.0-0.0-0.0

Prerequisite: (2) BIOS 1121; and college-level reading, writing, and math proficiency
Corequisite: BIOS 1130
This course is the laboratory component to accompany BIOS 1130. This course emphasizes the structure and function of plant and animal organ systems. Students registering for this course must also register for BIOS 1130, which is the lecture component of the course.

## BIOS 1250 - Environmental Biology - B

4.5-0.0-4.5

Prerequisite: None
Environmental Biology focuses on ecological issues and assists students in identifying the causes, proposing solutions, and developing/critiquing environmental action plans. Course topics include ecosystems, energy, populations, resources, pollution, sustainability, and stewardship.

BIOS 1310 - Survey of Human Anatomy and Physiology

## 4.0-3.0-5.0

Prerequisite: None
Corequisite: BIOS 1310L
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. Students registering for this course must also register for BIOS 1310 L , which is the laboratory component of the course.

## BIOS 1310L - Survey of Human Anatomy and Physiology Lab

 0.0-0.0-0.0Prerequisite: (1) College-level reading, writing, and math proficiency Corequisite: BIOS 1310
This course is the laboratory component to accompany BIOS 1310. The laboratory activities include all the 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. Students registering for this course must also register for BIOS 1310 , which is the lecture component of the course.

## BIOS 1400 - Introduction to Botany

3.5-3.0-4.5

Prerequisite: (2) HLSM 1010, BIOS 1010, or MCC biology placement exam; and college-level reading, writing, and math proficiency
Corequisite: BIOS 1400L
This is an introductory botany course covering studies plant morphology and physiology of herbaceous and woody plant divisions within the plant kingdom as well as other related plant-like organisms (algae and fungi). Topics covered include plant structure and function, plant growth, transpiration, photosynthesis, evolution, and reproductive life cycles. The course concludes with the diversity of flowers and plant life. Students registering for this course must also register for BIOS 1400L, which is the laboratory component of the course.

## BIOS 1400L - Introduction to Botany Lab

## 0.0-0.0-0.0

Prerequisite: (3) HLSM 1010; BIOS 1010 or MCC biology placement exam; and college-level reading, writing, and math proficiency

## Corequisite: BIOS 1400

Laboratory work includes microscopic examination of cells and tissues of typical plants, experiments in photosynthesis and transpiration, observation of the plant life cycle through gametophyte and sporophyte stages, and an introduction to plant identification techniques. Students registering for this course must also register for BIOS 1400, which is the lecture component of the course.

## BIOS 1500 - Introduction to Bioprocessing <br> 3.5-3.0-4.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and high school biology with a grade of B or better, BIOS 1010, or equivalent

## Corequisite: BIOS 1500L

This course is an introduction to the biological applications relating to bioprocessing. Topics include career exploration, history and applications of DNA and RNA technology, fermentation, enzymes, growth requirements for microbes, sterile techniques, waste water treatment, bioseparation, and laboratory safety. Beginning 14/FA, students registering for this course must also register for BIOS 1500 L which is the laboratory component of the course.

## BIOS 1500L - Introduction to Bioprocessing Lab

0.0-0.0-0.0

Prerequisite: (2) High school biology with a grade of B or better or BIOS 1010 or equivalent; college-level reading, writing, and math proficiency

## Corequisite: BIOS 1500

This is the laboratory component to accompany BIOS 1500. Laboratory exercises include applications of DNA and RNA technology, fermentation, enzymes, growth requirements for microbes, sterile techniques, bioseparation, and laboratory safety. Demonstrations and field trips that illustrate the basic techniques of bioprocessing may also be included. Students registering for this course must also register for BIOS 1500 which is the lecture component of the course.

## BIOS 2050 - Genetics $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and BIOS 1010 or equivalent
Understanding many of the advances taking place in biology and medicine requires a good understanding of genetics. This course discusses both classical and modern genetics.

## BIOS 2150 - Microbiology <br> 5.0-3.0-6.0

Prerequisite: (2) BIOS 1010; and college-level reading, writing, and math proficiency
Corequisite: BIOS 2150L
This course includes a study of the structure, physiology, ecology, and human health implications of microorganisms. Beginning 14/FA, students registering for this course must also register for BIOS 2150L which is the laboratory component of the course. NOTE: If students' programs include a course in anatomy and physiology, completing that course prior to BIOS 2150 would be to their advantage.

## BIOS 2150L - Microbiology Lab

0.0-0.0-0.0

Prerequisite: (2) BIOS 1010; and college-level reading, writing, and math proficiency
Corequisite: BIOS 2150
This is the laboratory component to accompany BIOS 2150. Laboratory activities include the structure, physiology, ecology, and human health implications of microorganisms. Sterile technique, culturing and transfer of microbes, and controlling the growth of microbes are also included. Students registering for this course must also register for BIOS 2150, which is the lecture component of the course.

## BIOS 2310 - Human Anatomy and Physiology I

5.0-3.0-6.0

Prerequisite: (2) College-level reading, writing, and math proficiency; and BIOS 1010 or equivalent
Corequisite: BIOS 2310L
This course presents an in-depth study of human anatomy and physiology by examining cell function, tissues, and the skeletal, muscular, and nervous systems. Beginning 14/FA, students registering for this course must also register for BIOS 2310 L which is the laboratory component of the course. NOTE: CHEM 1010, CHEM 1211, or CHEM 1212 must be successfully completed prior to taking BIOS 2320 Anatomy and Physiology II.

## BIOS 2310L - Human Anatomy and Physiology I Lab

0.0-0.0-0.0

Prerequisite: (2) BIOS 1010 or equivalent; and college-level reading, writing, and math proficiency
Corequisite: BIOS 2310
This is the laboratory component to accompany BIOS 2310. Laboratory activities include the structure and function of cell, body tissues, and skeletal, muscular, and nervous systems. Students registering for this course must also register for BIOS 2310, which is the lecture component of the course.

## BIOS 2320 - Human Anatomy and Physiology II

## 5.0-3.0-6.0

Prerequisite: (3) College-level reading, writing, and math proficiency; BIOS 2310; and CHEM 1010, CHEM 1211, or CHEM 1212
Corequisite: BIOS 2320L
As a continuation of BIOS 2310, this course studies the structure and function of the circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Beginning 14/FA, students registering for this course must also register for BIOS 2320L which is the laboratory component of the course. NOTE: If students' programs require both BIOS 2310 and BIOS 2320, the chemistry prerequisite must be met prior to taking BIOS 2320.

## BIOS 2320L - Human Anatomy and Physiology II Lab

0.0-0.0-0.0

Prerequisite: (3) BIOS 2310; CHEM 1010, CHEM 1211, or CHEM 1212; and college-level reading, writing, and math proficiency
Corequisite: BIOS 2320
This is the laboratory component to accompany BIOS 2320. Laboratory activities include the structure and function of the circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Students registering for the course must also register for BIOS 2320, which is the lecture component for this course

## 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.

## BSAD - Business Management

## BSAD 1000 - Introduction to Business $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course provides a survey of the structure and functions of the American business system together with an overview of business organization, finance, managerial control, production and distribution, personnel, the interdependence of business and government, and consumer business relations.

## BSAD 1010 - Principles of Marketing -8

4.5-0.0-4.5

Prerequisite: (1) BSAD 1000 or equivalent
This course features a survey of the distributive fields, their functions, and interrelationships. The course covers the concept and strategies of the marketing mix; the application of marketing concepts in both consumer and business to business environments; and controversial marketing topics, including ethical challenges of advertising.

## BSAD 1100 - Business Law 1 B

4.5-0.0-4.5

Prerequisite: None
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-B

4.5-0.0-4.5

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

4.5-0.0-4.5

Prerequisite: None
This course covers fundamentals of selling, from the determination of customer needs to the close of the sale. The course explores such factors as customer problems, merchandising knowledge, and personality traits of successful salespersons. NOTE: It is strongly recommended BSAD 1010 or equivalent is taken prior to BSAD 1200, BSAD 1201, and BSAD 1202.

## BSAD 1201 - Advertising and Sales Promotion <br> 4.5-0.0-4.5 <br> Prerequisite: None

This is an introductory course dealing with the theory, practice, and techniques of advertising. It considers the role of advertising and sales promotion in the economy. The course includes a general survey of the kinds and purposes of media, the psychological implication of typical appeals, and limited practice in promotional programming. Students coordinate advertising, display, and publicity in the context of a realistic sales promotion program. NOTE: It is strongly recommended BSAD 1010 or equivalent is taken prior to BSAD 1200, BSAD 1201, and BSAD 1202.

## BSAD 1202 - Direct Marketing Methods

4.5-0.0-4.5

Prerequisite: None
This course offers a practical presentation of direct marketing methods and techniques covering telemarketing, direct mail, television, newspaper, and magazines. Topics 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 and marketers and a skill developer for the direct marketing professional. This course is only offered during Fall quarter. NOTE: It is strongly recommended BSAD 1010 or equivalent is taken prior to BSAD 1200, BSAD 1201, and BSAD 1202.

## BSAD 1210 - Retailing

4.5-0.0-4.5

Prerequisite: (1) BSAD 1010 or equivalent
This course acquaints students 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, 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

4.5-0.0-4.5

Prerequisite: None
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 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

4.5-0.0-4.5

Prerequisite: None
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. Students are 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 -3

4.5-0.0-4.5

Prerequisite: None
This course gives emphasis 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 $\because$

4.5-0.0-4.5

Prerequisite: None
This is an introduction to the theory and practice of management of the organization. Students study various schools of management theory and devote special attention to the process of planning, decision-making, organizing, leading, and controlling the organization.

## BSAD 2300 - Quality Management: Statistical Process Control 4.5-0.0-4.5

Prerequisite: None
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. This course emphasizes management's responsibility to make system changes to improve quality and productivity; include obligations relative to customer satisfaction; design and develop products and services; and use statistical methods for management, control, and improvement. Students select and implement a project using the techniques of statistical process control and learn strategies for evaluation and continued improvement of the product or service.

## BSAD 2400 - Business Logistics

4.5-0.0-4.5

Prerequisite: None
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 2410 - Purchasing and Materials Management <br> 4.5-0.0-4.5

Prerequisite: None
This course acquaints students 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

## 4.5-0.0-4.5

Prerequisite: None
This course is an overview of the fundamentals of production and operations management used in service and manufacturing organizations. Students study 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 $-\mathcal{B}$ <br> 4.5-0.0-4.5 <br> Prerequisite: None

The course is a study of the principles and techniques of personnel management, including an examination of managerial practices in the selection, development, and motivation of employees; factors underlying employee participation in policy formulation; the effect of the work environment; administration of wages, salaries, and benefits; and the evaluation of personnel programs.

## BSAD 2610 - Labor and Management Relations

4.5-0.0-4.5

Prerequisite: None
The course includes a study of the history of the union movement and its present consequences for U.S. labor and management. Topics 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 and management relationships.

## BSAD 2630 - Human Resource Development- -8

## 4.5-0.0-4.5

Prerequisite: (1) BSAD 2600 or current membership in HRAM/SHRM
This course emphasizes the application of theory of training and development to assessment of needs, gap analysis, various types of training programs, and training program implementation and evaluation. It also addresses how to align training and development with organizational goals.

## BSAD 2700 - Introduction to International Business

4.5-0.0-4.5

Prerequisite: None
This course presents a broad overview of the fundamentals of international business and trade and familiarizes students with the basic terminology, key concepts, and issues unique to the subject. Students study the global economy, including international trade, investments, and the business environments. They study the management of multinational firms in the context of the international financial systems, global market research, and comparative advantage.

## BSAD 2710 - Import and Export Operations

4.5-0.0-4.5

Prerequisite: None
This course introduces students to the advantages and disadvantages of international trade. Topics include political and cultural considerations in advertising and packaging products for global distribution and shipping, as well as transportation procedures to include regulation, rates, storage, and traffic management considerations. Students receive hands-on experience in simulated global trade operations.

## BSAD 2720 - International Marketing Management $\checkmark$

## 4.5-0.0-4.5

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. Students demonstrate a global mindset and acquire knowledge of a broad cultural understanding on global strategic thinking and of the global marketing environment. This course emphasizes analyzing, developing, and designing global marketing strategies and programs with references drawn from well-known companies in Europe, Asia, and the Americas that explore global marketing issues.

## BSAD 2800 - Ethics in Accounting and Business - b <br> 4.5-0.0-4.5

Prerequisite: (1) 9.0 credit hours in either BSAD, ACCT, FINA, or ENTR
Ethical and moral issues are common in the business and accounting world. The conflicting goals of sales, success, growth, the rights and safety of consumers, the fiduciary responsibility of owners, and personal goals and ambition frequently drive individuals and businesses to ethical crossroads. Understanding the issues of ethics helps individuals and businesses deal with complex situations. (Crosslisted as ACCT 2800)

## BSAD 2900 - Special Topics in Management <br> Variable

Prerequisite: (1) Instructor approval
This course is designed to permit instruction in special content areas not included in other business management courses.

## BSAD 2940 - Business Plan Capstone

1.5-0.0-1.5

Prerequisite: (1) Completion of $85.0+$ quarter hours in the Business Management or Accounting associate degree option
The capstone course is an independent study course where students demonstrate competencies in the areas of management, finance, accounting, and report writing by developing a draft and finalized business plan on a studentfaculty 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 2981 - Internship in Business

Variable
Prerequisite: (2) Completion of at least 24.0 credit hours of the program's major requirements and instructor approval
The internship in the Business program is an advanced course and is expected to be taken in the second year of study. Students apply 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 can be a public, private, or nonprofit organization appropriate to the degree option being pursued. Students record the tasks performed in their notebooks, which the various work supervisors and faculty sponsors review periodically 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. NOTE: Internship hours are arranged so as to award 3.0 to 4.5 credit hours for successful completion.

## CAET - Center for Advanced and Emerging Technologies

CAET 2981 - Internship<br>0.0-16.0-4.0

Prerequisite: (1) Instructor approval
The internship provides students with the opportunity to apply knowledge gained in a course of study, learn new techniques, and get on-the-job training at an approved work site. To develop an internship, students must meet with a faculty advisor to meet academic and career goals.

## CHEM - Chemistry

## CHEM 1010 - College Chemistry ${ }^{\text {B }}$

5.0-3.0-6.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1010L
Students taking CHEM 1010 on campus must register separately for CHEM 1010L. For those students taking CHEM 1010 in the hybrid format, the lab is included in the course. This course covers the principles relevant to a basic understanding of chemistry. The topics include atomic structure, chemical bonding, stoichiometry, gas laws, solutions, acid/base chemistry, and equilibria.

## CHEM 1010L - College Chemistry Lab <br> 0.0-0.0-0.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1010
This course is the laboratory component to accompany CHEM 1010 when taken on campus. Students taking CHEM 1010 online or in the hybrid format should not sign up for this course, as lab is included in these formats. Laboratory activities include atomic structure, chemical bonding, stoichiometry, gas laws, solutions, acid/base chemistry, and equilibria.

## CHEM 1120 - Chemistry for the Health Sciences I

2.5-1.5-3.0

Prerequisite: (3) Within two years prior to beginning the course, either successful completion of MATH 0931 or MATH 0960; CHEM 1010, CHEM 1211, or CHEM 1212; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1120L
This course gives students entering a health career fundamental knowledge of those areas of chemistry that relate to physiological principles. This course covers topics that include solutions; acids, bases, and buffers; nuclear chemistry; equilibrium; and an introduction to organic chemistry. CHEM 1120 is 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. Beginning 14/FA, students registering for this course must also register for CHEM 1120L which is the laboratory component of the course.

## CHEM 1120L - Chemistry for the Health Careers Lab <br> 0.0-0.0-0.0

Prerequisite: (3) Within two years prior to beginning the course, either successful completion of MATH 0931 or MATH 0960; CHEM 1010/CHEM 1010L, CHEM 1211/CHEM 1211L, or CHEM 1212/CHEM 1212L; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1120
This is the laboratory component of CHEM 1120. Lab activities include solutions; acids, bases, and buffers; nuclear chemistry; equilibrium; and an introduction to organic chemistry. CHEM 1120 is taught during the first part of the quarter to be followed immediately by CHEM 1130/CHEM 1130L. Both CHEM 1120/CHEM 1120L and CHEM 1130/CHEM 1130L must be completed for transfer as a foursemester credit chemistry course for baccalaureate work. Students registering for this course must also register for CHEM 1120 which is the lecture component of the course.

## CHEM 1130 - Chemistry for Health Sciences II

2.0-3.0-3.0

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1120, CHEM 1211, or CHEM 1212
Corequisite: CHEM 1130L
As a continuation of CHEM 1120, this course continues with a study of those areas of chemistry that relate to physiology principles. This course parallels the chemistry of organic molecules to biochemical functions. It introduces the 3-D nature of carbon molecules and the relationship between shape and physiological
activity. The course also covers 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 begins during the second part of the quarter, immediately following the completion of CHEM 1120. Both CHEM 1120 and 1130 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. Beginning 14/FA, students registering for this course must also register for CHEM 1130L which is the laboratory component of the course.

## CHEM 1130L - Chemistry for the Health Careers II Lab <br> 0.0-0.0-0.0

Prerequisite: (2) CHEM 1120, CHEM 1211, or CHEM 1212; and college-level reading, writing, and math proficiency

## Corequisite: CHEM 1130

As a continuation of CHEM 1120L, activities in this course focus on the chemistry of both organic and biochemical compounds. They demonstrate the similarities between the two as well as the chemistry of biochemical molecules in the physiological systems. CHEM 1130L begins during the second part of the quarter, immediately following the completion of CHEM 1120L. Both CHEM $1120 /$ CHEM 1120 L and CHEM 1130/CHEM 1130 L must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. Students registering for this course must also register for CHEM 1130 which is the lecture component of the course.

## CHEM 1210-General Chemistry: Part I

1.5-1.5-2.0

Prerequisite: (4) College-level reading, writing, and math proficiency; high school chemistry; chemistry readiness assessment testing; and MATH 0931 or MATH 0960
Corequisite: CHEM 1210L and MATH 1310
General Chemistry I is offered in two formats. The first format includes both CHEM 1210 and 1211. Completion of both CHEM 1210 and 1211 is equivalent to one semester of General Chemistry I but presented over a two-quarter period. Both CHEM 1210 and 1211 must be successfully completed to transfer as a semester-length course. This combination of courses is taught on the same pace as a regular semester course. Students who need a one-year general chemistry course emphasizing more time to develop their math and chemistry skills should consider taking this course sequence. Topics included in the first portion are measurement, naming compounds, writing chemical equations, atomic structure, the essentials of bonding, and the periodic table. Students completing this course are able to complete their general chemistry in one academic year. It is strongly recommended that students complete a prior high school or beginning collegelevel chemistry course before undertaking this course. Beginning 14/FA, students registering for this course must also register for CHEM 1210 L which is the laboratory component of the course. NOTE: The corequisite MATH 1310 can be taken concurrently or have previously been completed. The level of difficulty of General Chemistry I is quite high. It is strongly recommended that students complete a prior high school or beginning college-level chemistry course before undertaking this course.

## CHEM 1210L - General Chemistry: Part I Lab 0.0-0.0-0.0

Prerequisite: (4) MATH 0931 or MATH 0960; high school chemistry; chemistry readiness assessment testing (Toledo Assessment Exam); and college-level reading, writing, and math proficiency
Corequisite: CHEM 1210 and MATH 1310
This is the laboratory portion of Part 1 with activities focused on measurement, naming compounds, writing chemical equations, atomic structure, the essentials of bonding, and the periodic table. Students registering for this course must also register for CHEM 1210 which is the lecture component for the course.

## CHEM 1211 - General Chemistry: Part II

3.0-3.0-4.0

Prerequisite: (3) College-level reading, writing, and math proficiency; CHEM 1210; and MATH 1310
Corequisite: CHEM 1211L and MATH 1420
This course is a continuation of CHEM 1210. Completion of both CHEM 1210 and 1211 is equivalent to one semester of General Chemistry I. Topics in the second portion include modern bonding theories; VSEPR theory; stoichiometry; solution chemistry; thermochemistry; and the chemistry of solids, liquids, and gases.
Beginning 14/FA, students registering for this course must also register for CHEM 1211L which is the laboratory component of the course. NOTE: The corequisite MATH 1420 can be taken concurrently or have previously been completed.

## CHEM 1211L - General Chemistry: Part II Lab

0.0-0.0-0.0

Prerequisite: (3) CHEM 1210; MATH 1310; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1211 and MATH 1420
This is the lab component of CHEM 1211. Lab activities cover such topics as bonding theories; VSEPR theory; stoichiometry; solution chemistry;
thermochemistry; and the chemistry of solids, liquids, and gases. Students registering for this course must also register for CHEM 1211 which is the lecture component of the course.

## CHEM 1212-General Chemistry I: Accelerated

## 4.5-4.5-6.0

Prerequisite: (4) College-level reading, writing, and math proficiency; CHEM 1010 or strong high school chemistry course; chemistry readiness (Toledo) assessment testing; and MATH 1310
Corequisite: CHEM 1212L and MATH 1420
This is an accelerated General Chemistry I course for students who have some knowledge of chemistry as indicated by assessment testing. Topics include 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. Beginning 14/FA, students registering for this course must also register for CHEM 1212L which is the laboratory component of the course. NOTE: The corequisite MATH 1420 can be taken concurrently or have previously been completed. It is assumed that students taking this course have some chemistry background and strong math skills to work at the accelerated pace.

## CHEM 1212L - General Chemistry I: Accelerated Lab

## 0.0-0.0-0.0

Prerequisite: (4) CHEM 1010 or strong high school chemistry course; MATH 1310; chemistry readiness (Toledo) assessment testing; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1212 and MATH 1420
This is the laboratory component of the General Chemistry I: Accelerated course. Laboratory activities focus on measurement and data collection; atomic structure; chemical reactions; essentials of bonding; periodic properties; VSEPR theory; modern bonding theories; stoichiometry; thermochemistry; and the chemistry solids, liquids, and gases. Students registering for this course must also register for CHEM 1212 which is the lecture component of the course.

## CHEM 1220 - General Chemistry II

4.5-4.5-6.0

Prerequisite: (3) College-level reading, writing, and math proficiency; CHEM 1211 or CHEM 1212 with a grade of $C$ or better within the past four years; and MATH 1420
Corequisite: CHEM 1220L
The conclusion of the one-year college chemistry program covers 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.). Beginning 14/FA, students registering for this course must also register for CHEM 1220L which is the laboratory component of the course. NOTE: General Chemistry II is offered in the accelerated format only. It is expected that students have completed the necessary prerequisites prior to enrolling in this course.

## CHEM 1220L - General Chemistry II Lab

## 0.0-0.0-0.0

Prerequisite: (3) CHEM 1211 or CHEM 1212 with a grade of C or better within the last four years; MATH 1420; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1220
This is the lab component for General Chemistry II. The lab activities focus on 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.). Students registering for this course must also register for CHEM 1220 which is the lecture component of the course.
CHEM 1510 - Chemistry for Bioindustry I
2.5-1.5-3.0

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1010, CHEM 1211, or CHEM 1212
Corequisite: CHEM 1510L
This course gives students entering a biotech career fundamental knowledge of those areas of chemistry that relate to bioindustrial principles. This course covers solids, liquids, and solutions; acids, bases, and buffers; rate; equilibrium; and an introduction to organic chemistry. The course material is presented in lecture form to introduce the topics and information, and the concepts are reinforced
through laboratory experiments in CHEM 1510L. CHEM 1510 is taught during the first part of the quarter to be followed immediately by CHEM 1520. Both CHEM 1510 and 1520 must be completed for transfer as a four-semester credit chemistry course for baccalaureate work. Beginning 14/FA, students registering for this course must also register for CHEM 1510L which is the laboratory component of the course.

## CHEM 1510L - Chemistry for Bioindustry I Lab 0.0-0.0-0.0

Prerequisite: (2) CHEM 1010/CHEM 1010L; CHEM 1211/CHEM 1211L; or CHEM 1212/CHEM 1212L; and college-level reading, writing, and math proficiency Corequisite: CHEM 1510
This is the laboratory component of CHEM 1510. The laboratory activities focus on the properties of solids, liquids, and solutions; acids, bases, and buffers; rate; equilibrium; and an introduction to organic chemistry. CHEM 1510/1510L is taught during the first part of the quarter to be followed immediately by CHEM 1520/1520L. Both CHEM 1510/CHEM 1510L and 1520/1520L must be completed for transfer as a four-semester credit chemistry course for baccalaureate work. Students registering for this course must also register for CHEM 1510 which is the lecture component of the course.

## CHEM 1520-Chemistry for Bioindustry II

## 2.0-3.0-3.0

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1510

## Corequisite: CHEM 1520L

As a continuation of CHEM 1510, this course continues with a study of those areas of chemistry that relate to bioindustrial principles. This course parallels the chemistry of organic molecules to biochemical functions. It introduces the 3-D nature of carbon molecules and the relationship between shape and physiological activity. The course covers 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 begins during the second part of the quarter, immediately following the completion of CHEM 1510. Both CHEM 1510 and 1520 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. Beginning 14/FA, students registering for this course must also register for CHEM 1520L which is the laboratory component of the course.

## CHEM 1520L - Chemistry for Bioindustry II Lab <br> 0.0-0.0-0.0

Prerequisite: (2) CHEM 1510/1510L; and college-level reading, writing, and math proficiency
Corequisite: CHEM 1520
This is the lab component of CHEM 1520. The lab activities focus on the 3-D nature of carbon molecules and the relationship between shape and physiological activity as well as the chemical and biochemical properties of the oxygencontaining organic molecules with carbohydrates, carboxylic acids with lipids, and amines with amino acids and proteins. CHEM 1520L begins during the second part of the quarter, immediately following the completion of CHEM 1510/1510L. Both CHEM 1510/1510L and CHEM 1520/1520L must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. Students registering for this course must also register for CHEM 1520 which is the lecture component of the course.

## CHEM 2310 - Fundamentals of Organic Chemistry

## 5.0-3.0-6.0

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1010 (or an equivalent course) with a grade of $C$ or better within the past four years
Corequisite: CHEM 2310L
This fundamental course provides an overview of important organic chemical components. Topics include bonding, 3-D structure, isomerism, the relationship between structure and reactivity of carbon compounds, and reaction mechanisms. These concepts help describe hydrocarbons, alcohols, aldehydes, ketones, and carboxylic acids. Students discuss the relationship of these compounds to biochemicals. Beginning 14/FA, students registering for this course must also register for CHEM 2310L which is the laboratory component of the course.

## CHEM 2310L - Fundamentals of Organic Chemistry Lab <br> 0.0-0.0-0.0

Prerequisite: (2) CHEM 1010/CHEM 1010L (or an equivalent course) with a grade of $C$ or better within the past four years; and college-level reading, writing, and math proficiency
Corequisite: CHEM 2310
This is the lab component of CHEM 2310. The laboratory activities demonstrate such organic chemical properties as 3-D structure and bonding, isomerism, the relationship between structure and reactivity of carbon compounds, and reaction of organic functional groups. Students registering for this course must also register for CHEM 2310 which is the lecture component of the course.

## CHEM 232A - Organic Chemistry IA

## 2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1220 (or an equivalent general chemistry course) with a grade of $C$ or better within the past four years
Corequisite: CHEM 232AL
Organic Chemistry I provides a comprehensive study of the chemistry of carbon compounds. This course is for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical preprofessional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include the structure and properties of carbon compounds; the classification of organic molecules by functional groups; and the structure, properties, reactions, and stereochemistry of alkanes. Beginning 14/FA, students registering for this course must also register for CHEM 232AL which is the laboratory component of the course.

## CHEM 232AL - Organic Chemistry IA Lab <br> 0.0-0.0-0.0

Prerequisite: (2) CHEM 1220/CHEM 1220L (or an equivalent general chemistry course) with a grade of C or better within the past four years; college-level reading, writing, and math proficiency
Corequisite: CHEM 232A
This is the laboratory component of the first module of Organic Chemistry I. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The activities focus on the structure and properties of carbon compounds; the classification of organic molecules by functional groups; and the structure, properties, reactions, and stereochemistry of alkanes. Students registering for this course must also register for CHEM 232A which is the lecture component of the course.

## CHEM 232B - Organic Chemistry IB

## 2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232A

## Corequisite: CHEM 232BL

Organic Chemistry I provides a comprehensive study of the chemistry of carbon compounds. This course is for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical pre-
professional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include the structure and properties of carbon compounds; the classification of organic molecules by functional groups; and the structure, properties, reactions, and stereochemistry of alkanes. Beginning 14/FA, students registering for this course must also register for CHEM 232BL which is the laboratory component of the course.

## CHEM 232BL - Organic Chemistry IB Lab

0.0-0.0-0.0

Prerequisite: (2) CHEM 232A; and college-level reading, writing, and math proficiency
Corequisite: CHEM 232B
This is the laboratory component of the second module of Organic Chemistry I. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The activities focus on the structure, properties, and reactions of alkenes and alkynes, including mechanism and stereochemistry. Students registering for this course must also register for CHEM 232B which is the lecture component of the course.

## CHEM 232C - Organic Chemistry IC

## 2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232B
Corequisite: CHEM 232CL
Organic Chemistry I provides a comprehensive study of the chemistry of carbon compounds. This course is for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical pre-
professional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include the structure and properties of carbon compounds; the classification of organic molecules by functional groups; and the structure, properties, reactions, and stereochemistry of alkanes. Beginning 14/FA, students registering for this course must also register for CHEM 232CL which is the laboratory component of the course.

## CHEM 232CL - Organic Chemistry IC Lab

## 0.0-0.0-0.0

Prerequisite: (2) CHEM 232B; and college-level reading, writing, and math proficiency
Corequisite: CHEM 232C
This is the laboratory component of the third module of Organic Chemistry I. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The lab activities focus on the structure, properties, and reactions of halogenated carbon compounds, alcohols, and thiols, including mechanism and stereochemistry. Students registering for the course must also register for CHEM 232C which is the lecture component of the course.

## CHEM 233A - Organic Chemistry IIA

## 2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232 C (or an equivalent organic chemistry course) with a grade of $C$ or better within the past four years
Corequisite: CHEM 233AL
Organic Chemistry II is a continuation of CHEM 232A, B, and C for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical pre-professional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include spectroscopy; organometallics; and the structure, properties, and reactions of ethers, sulfides, and epoxides, including mechanism and stereochemistry. Beginning 14/FA, students registering for this course must also register for CHEM 233AL which is the laboratory component of the course.

## CHEM 233AL - Organic Chemistry IIA Lab <br> \section*{0.0-0.0-0.0}

Prerequisite: (2) CHEM 232C/CHEM 232CL (or an equivalent organic chemistry course) with a grade of $C$ or better within the past four years; and college-level reading, writing, and math proficiency
Corequisite: CHEM 233A
This is the laboratory component of the first module of Organic Chemistry II. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The lab activities focus on spectroscopy, organometallics, and the structure, properties and reactions of ethers, sulfides, and epoxides, including mechanism and stereochemistry. Students registering for this course must also register for CHEM 233A which is the lecture component of the course.

## CHEM 233B - Organic Chemistry IIB

## 2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 233A
Corequisite: CHEM 233BL
Organic Chemistry II provides a comprehensive study of the chemistry of carbon compounds. This course is for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical preprofessional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include the structure, properties, and reactions of carbonyl compounds (aldehydes, ketones, carboxylic acids, and their derivatives) and nitrogen-containing organic
compounds, including mechanism and stereochemistry. Beginning 14/FA,
students registering for this course must also register for CHEM 233B which is the laboratory component of the course.

## CHEM 233BL - Organic Chemistry IIB Lab

## 0.0-0.0-0.0

Prerequisite: (2) CHEM 233A; and college-level reading, writing, and math proficiency
Corequisite: CHEM 233B
This is the laboratory component of the second module of Organic Chemistry II. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The lab provides a comprehensive study of the chemistry of carbon compounds and activities focus on the structure, properties, and reactions of carbonyl compounds (aldehydes, ketones, carboxylic acids, and their derivatives) and nitrogen-containing organic compounds, including mechanism and stereochemistry. Students registering for this course must also register for CHEM 233B which is the lecture component of the course.

## CHEM 233C - Organic Chemistry IIC

2.0-1.5-2.5

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 233B

## Corequisite: CHEM 233CL

Organic Chemistry II is a continuation of CHEM 232A, B, and C for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering as well as for medical pre-professional students. The course is offered as three modules, all of which must be completed to transfer as a semester-length course. The topics include the structure, properties, and reaction mechanisms of conjugated pi systems, including aromatic compounds. Beginning 14/FA, students registering for this course must also register for CHEM 233CL which is the laboratory component of the course.

## CHEM 233CL - Organic Chemistry IIC Lab

## 0.0-0.0-0.0

Prerequisite: (2) CHEM 233B; and college-level reading, writing, and math proficiency
Corequisite: CHEM 233C
This is the laboratory component of the third module of Organic Chemistry II. The lab course is offered as three modules, all of which must be completed to transfer as a semester-length course. The lab activities focus on the structure, properties, and reaction mechanisms of conjugated pi systems, including aromatic compounds. Students registering for this course must also register for CHEM 233C which is the lecture component of the course.

## CHEM 2900-Special Topics in Chemistry

Variable
Prerequisite: None
Various topics not typically covered in other chemistry courses may be offered depending upon interest, program need, and relevancy to the curriculum.

## CHIN - Chinese

CHIN 1110 - Beginning Chinese $1-\forall$
7.5-0.0-7.5

Prerequisite: None
This course provides fundamental knowledge about Chinese language and culture. It emphasizes all four language skills - reading, writing, speaking, and listening. The Pinyin system of phonetic transliteration is used to teach the pronunciation of syllables and words. It introduces the formation of Chinese characters and establishes core vocabulary and grammar.

## CHIN 1120 - Beginning Chinese IIß

7.5-0.0-7.5

Prerequisite: (1) CHIN 1110 or equivalent competency
This course helps beginners continue developing their communicative competence in the four basic skills of listening, speaking, reading, and writing while at the same time gaining competence in Chinese culture, exercising their ability to compare aspects of different cultures, making connections to their daily lives, and building links among communities.

## CHRM - Culinary, Hospitality, Research, and Management

CHRM 1000-CHRM Orientation
2.0-0.0-2.0

Prerequisite: None
This course is an introduction to the culinary, hospitality, research, and management program. Topics include the professional kitchen, an overview of the tremendous career opportunities available in the industry, and portfolio development. This course should be taken during the first quarter of enrollment. NOTE: CHRM 1000, 1999, and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management program.
CHRM 1010 - Culinary Math

## 2.0-0.0-2.0

Prerequisite: None
This course covers all the basics of culinary math as a foundation to understanding the financial concepts of the food service industry. Topics include conversions, yields, recipe costing, recipe conversion, selling prices, and baking formulas, as well as basic math principles.

## CHRM 1020 - Sanitation -0

2.0-0.0-2.0

Prerequisite: None
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 is an extensive discussion of sanitary regulations, agencies, and employee sanitation training. In order to pass this course, students must successfully pass the National Restaurant Association's Education Foundation ServSafe Exam and subsequently receive a certificate. This course is a corequisite to CHRM 1030, and all further first-year culinary lab classes require successful completion of this course.

## CHRM 1030 - Culinary Foundations 1: Skills

2.0-6.0-4.0

Prerequisite: None
Corequisite: CHRM 1000 and CHRM 1020
Students apply principles of proper food handling, kitchen safety, and sanitation as it relates to the food industry. Students also learn the principles of cooking and cooking methods that include dry, moist, and combination methods. Topics include kitchen tools and equipment, knife skills, food and plate presentation, food evaluation, seasonings, flavorings and aromatics, fats, dairy products, eggs, and palate development. NOTE: The corequisites CHRM 1000 and CHRM 1020 can be taken concurrently or have previously been completed. Current ServeSafe certification can be substituted for CHRM 1020.

## CHRM 1035 - Culinary Foundations 2: Cuisines

2.0-6.0-4.0

Prerequisite: (2) CHRM 1020 and CHRM 1030
This course is a continuation of CHRM 1030 with an expanded focus on the use of ingredients through an exploration of various cuisines from around the world. Students study the significant historical, cultural, ethnic, and religious influences that are reflected in cuisines of the world. Students continue to develop a higher degree of skill in the preparation of food and an advanced understanding of industry-standard practices. Students continue to demonstrate mise en place, classical knife skills, and overall professionalism in a commercial kitchen. Cooking competencies demonstrate an understanding of ingredient preparation and cooking methods appropriate for those ingredients. An in-depth exploration of ingredients include potatoes and root vegetables, brassicas, alliums, rice, corn, wheat, fruit vegetables, legumes, gourds, squashes, mushrooms, truffles, salad greens, green vegetables, and pasta. Various meats, poultry, fish, seafood, and protein alternatives are also explored. Students are also introduced to contemporary plating and garnishing.

## CHRM 1120 - Soup and Sauce Basics

1.5-7.5-4.0

Prerequisite: (2) CHRM 1020 and CHRM 1030
Students learn and apply principles of stock, broth, soup, and sauce production used in commercial food production. Students also learn and practice professionally plating dishes with sauces.

CHRM 1130 - Protein Fabrication
0.5-7.5-3.0

Prerequisite: (2) CHRM 1020 and CHRM 1030
Study focuses on the identification, fabrication, handling, and storage of protein items to include poultry, beef, pork, lamb, offals, shellfish, and finfish. Students are introduced to the concepts of protein cookery.

## CHRM 1140 - A la Carte Cookery: American Regional

 0.0-9.0-3.0Prerequisite: (3) CHRM 1020, CHRM 1035, and CHRM 1120
Study focuses on American Regional cuisine, emphasizing the historical, migrational, topographical, and climatological influences that have shaped the diverse culinary regions of America. Students prepare a variety of regional dishes for service in a guest-centered restaurant. Students also gain proficiency in the areas of kitchen sense, station management and organization, kitchen safety and sanitation, mise en place, and hustle.

## CHRM 1210 - Baking Basics

2.0-6.0-4.0

Prerequisite: (2) CHRM 1020 and CHRM 1030
Students learn to apply fundamental baking skills in preparing yeast breads, quick breads, laminated dough, cookies, pies, pastries, cakes, custards, creams, and sauces.

## CHRM 1220 - Pastries

## 1.0-6.0-3.0

Prerequisite: (1) CHRM 1210
This course provides an in-depth study of baking emphasizing American and European pastries. Topics include knowledge of different ingredients for fancy cookies, petit fours, laminated pastries, puff pastries, pate a choux, meringues, assorted pastes and tarts, icing, fillings, and glazes.

## CHRM 1250-Artisan Bread <br> 2.0-6.0-4.0

Prerequisite: (1) CHRM 1210
This course is an in-depth study of artisan bread baking. Students apply oldworld techniques with an emphasis on leavens, polish, and sponge bread methods. Students should complete CHRM 1210 prior to CHRM 1250 to obtain the skills necessary for successful completion of CHRM 1250.

## CHRM 1260 - Cakes

2.0-6.0-4.0

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. It gives attention to production of layered and component cakes using an assortment of creams, including crème patisserie, Bavarians, and mousses.

## CHRM 1550 - Customer Service

1.0-0.0-1.0

Prerequisite: None
Students are introduced to the power and invaluable tool of incredible customer service. No food service or hospitality establishment is successful unless employees are able to satisfy the customer, so a basic understanding of the key elements of customer service is presented to include greetings, seating, service, payment, errors, service recovery, and marketing.

## CHRM 1990 - Skills Demonstration for Bakers

## 0.0-1.5-0.5

Prerequisite: (2) Completion of all eight first-year Baking and Pastry program option courses (or in progress) and instructor approval
Baking and pastry students present for evaluation the skills and knowledge that they have acquired in their first year of study. This class also requires students to display a solid understanding of fundamental cooking and baking skills in order to deliver, under absolute time constraints, a high-quality final product for review by industry professionals. Students complete these requirements via independent study, examination, and small team experiences. Upon completion of the course, students should be eligible to apply for the Baking and Pastry Certificate of Achievement.

## CHRM 1999 - Skills Demonstration for Culinarians

0.0-1.5-0.5

Prerequisite: (2) Completion of all eight first-year Culinary Arts program option courses (or in progress) and instructor approval
Culinary arts students present for evaluation the skills and knowledge that they have acquired in their first year of study. This class also requires students to display, under absolute time constraints, a solid understanding of fundamental cooking and baking skills in order to deliver a high-quality final product for review by industry professionals. Students complete these requirements via independent study, examination, and small team experiences. Upon completion of this course, students should be eligible to apply for the Culinary Arts and Management Certificate of Achievement.

## CHRM 297A - Competition Training Camp

0.0-3.0-1.0

Prerequisite: None
This course is recommended for all those wishing to take CHRM 2970 Culinary Competition. The course introduces students to the rigors of professional culinary competition and develops the fundamental skills required for success as they move into sanctioned competitions through the American Culinary Federation. Students develop competition-quality menus, refine their culinary skills, define the importance of mise en place, and foster team-building skills.

## CHRM 2110 - Quantity Production

0.0-12.0-4.0

Prerequisite: (1) CHRM 1999
Students learn to prepare, merchandise, and service large quantities of food. The course emphasizes production of entrees, soups, sauces, salads, sandwiches, and convenience bakeshop items.

## CHRM 2120 - Garde Manger

0.5-10.5-4.0

Prerequisite: (1) CHRM 1999
Students study traditional upscale pantry preparation. Students practice techniques for artistic displays of hors d'oeuvres, canapés, pates, terrines, and charcuterie. Students also practice artisan food preservation.

## CHRM 2130 - Fine Dining

## 0.0-12.0-4.0

Prerequisite: (1) CHRM 1999
Students learn 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 work in stations to include salads, broiler, sauté, expeditor, and prep. Students plan and prepare up-scale theme menus.

## CHRM 2230 - Baking Production

## 0.0-12.0-4.0

Prerequisite: (1) CHRM 1990
This class gives practical experience in preparation of retail bakery products to include breads, rolls, breakfast pastries, cookies, pies, tarts, and cakes. Students learn to meet production demands based on needs and customer expectation and satisfaction. It ties theory learned in other courses (e.g., sanitation, nutrition, purchasing) into these experiences in a practical way so that students develop and increase their baking techniques and kitchen sense.

## CHRM 2250 - International Breads

## 1.0-6.0-3.0

Prerequisite: (1) CHRM 1990 or CHRM 1999
Students study and prepare breads from around the world. They learn how indigenous products, cultural preferences, and available fuel sources influence the development of unique regional and national styles of bread making.

## CHRM 2270 - Chocolate, Sugar, and Decorations

## 1.0-6.0-3.0

Prerequisite: (1) CHRM 1990
This course covers chocolate and sugar ingredient identification and application. Confectionary skills covered include icing, fondant, piping, buttercream, marzipan, and royal icing decorations; poured, pulled, and blown sugar; chocolate and sugar work and sculptures; pastillage; and assorted sugar and chocolate decorative pieces.

## CHRM 2280 - Plated Desserts

0.0-12.0-4.0

Prerequisite: (1) CHRM 2230
Students 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, garnishing, and producing component-style desserts.

## CHRM 2350 - Nutrition

3.5-3.0-4.5

Prerequisite: (1) CHRM 1030
This course orients students to basic nutrition in the context of a modern food service operation. Emphasis is placed on nutrition guidelines for various population groups and disease states to enable the professional to respond knowledgeably to customers' specific nutrition needs. Students apply nutrition principles in developing menus and preparing various meals reflecting current health and dietary guidelines. Students also explore health-centered cooking techniques and prepare meals suitable for common dietary restrictions.

## CHRM 2360 - Physiology of Flavor

## 2.0-7.5-4.5

Prerequisite: (2) CHRM 1030 and CHRM 1035
This course covers tastes and flavors (sweet, salt, bitter, sour, and umami). Students explore culinary herbs, 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 $-\circlearrowleft$

4.5-0.0-4.5

Prerequisite: (2) CHEM 1010 (or higher) or Research Chefs 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. It covers structure-function relationships of water, proteins, lipids, carbohydrates, minerals, and natural products in food systems. Students are able to relate fundamental chemical, physical, and biological principles to the preparation of food upon completion of this course.

## CHRM 2380 - Sensory Science Products

4.5-0.0-4.5

Prerequisite: (1) CHRM 2370
This course introduces students to sensory science and evaluation. Topics include the techniques and theory of food sensory measurement and perception of food. The course covers statistical methods for interpreting results.

## CHRM 2390 - Research and Development of Food Products

2.5-6.0-4.5

Prerequisite: (1) CHRM 2380
The course examines the process of research and development of food products. Students identify the importance and challenges of food product development. It covers the creation of a new food product in a real-world research and development facility as a lab experience.

## CHRM 2410 - Marketing and Industry Perspectives <br> \section*{2.0-3.0-3.0}

Prerequisite: None
This course exposes students to a wide variety of operations and broadens perspectives of the hospitality industry through site visits, speakers, and vendor events. An exploration of menu planning and marketing strategies employed by various industry segments is done in conjunction with the visits. Flexibility of schedule and transportation is essential for student success.

## CHRM 2460-Cost Management

4.5-0.0-4.5

Prerequisite: (1) CHRM 0950, CHRM 1010, or MATH 1242
Students develop an understanding of food cost, labor cost, portion control, menu pricing, and inventory and storeroom practices as they affect food service operations.

## CHRM 2465 - Food Service Financial Management

4.5-0.0-4.5

Prerequisite: (1) CHRM 2460
Students discover the management systems used to report and analyze revenue, expenses, and profits, as well as the overall financial health of a food-related business.

## CHRM 2470 - Hospitality Supervision-B

4.5-0.0-4.5

Prerequisite: None
This course considers approaches for effective culinary or hospitality supervision. It covers methods of recruiting, selecting, training, and evaluating personnel.
Students examine team building and conflict management concepts.

## CHRM 2475 - Leadership Principles

4.5-0.0-4.5

Prerequisite: None
This course focuses on leadership and decision-making principles as applied to a variety of food operations. It develops skills in communication, empowerment, and planning.

## CHRM 2480 - Purchasing

4.0-1.5-4.5

Prerequisite: (1) CHRM 2460
Purchasing methods and specifications in a variety of food operations are covered in this course. Students write purchasing specifications for a variety of foods using general purchasing methods, requirements, procedures, and ethics.

## CHRM 2550 - Table Service

0.0-9.0-3.0

Prerequisite: (1) CHRM 1550
Students reinforce and expand knowledge of the dining room to include styles of service, customer service principles, order of service, wine and food affinities, and merchandising the menu in a guest-centered environment. Upon successful
completion of this course, students may be awarded the National Restaurant Association ServSafe Alcohol Certificate.

## CHRM 2560 - Beverage Management

## 3.0-0.0-3.0

Prerequisite: None
Students 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

1.5-4.5-3.0

Prerequisite: (2) CHRM 1030 and CHRM 1550
Students accumulate the skills and knowledge necessary to plan and coordinate all aspects of event management including front-of-the-house, kitchen operations, and contract services in a client-driven, guest-centered environment. Students must have a flexible schedule to be successful in this course.

## CHRM 2650 - Banquet Service

0.5-7.5-3.0

Prerequisite: (2) CHRM 1550 and a flexible schedule
Students are introduced to and practice the fundamentals for executing successful events. Students learn the practical skills of buffet and banquet service in a guest-centered environment.

## CHRM 2900 - Special Topics in Culinary Arts

## Variable

Prerequisite: None
This course permits instruction in special content areas that are not included in other culinary arts classes.

## CHRM 2910 - Restaurant Consulting Practicum

## 2.0-3.0-3.0

Prerequisite: (1) Instructor approval
This course creates an industry-driven learning environment in which a small community of accomplished culinary students applies and expands their accumulated knowledge while working side-by-side with chef-instructors, restaurant professionals, and other industry leaders. It uses a broad, multidisciplinary approach to complete a culinary-based, client-centered consulting project. Students 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

2.0-7.5-4.5

Prerequisite: None
This course uses a broad, multi-disciplinary approach 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 select and create a professional-quality media piece for distribution. Students 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 2930 - Study Abroad

## 0.0-9.0-3.0

Prerequisite: (1) Instructor approval
Students are immersed in cultural and culinary experiences while exploring various worldwide locations. Students experience local, regional, and international cuisines through each country's prism of religious, ethnic, political, and cultural influences. Applying prior skill sets and knowledge, students explore flavor profiles and indigenous ingredients in various representative dishes. Students visit local food markets and cultural, historic, and natural landmarks.

## CHRM 2970 - Culinary Competition

0.0-9.0-3.0

Prerequisite: (1) Instructor approval
This course is required for all those wishing to participate on the culinary competition team. The course introduces 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 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 - Advanced Culinary Competition 1

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
Designed for students pursuing excellence through participation on the Culinary Competition Team, this course is a continuation of the skills and knowledge introduced in CHRM 2970. Students may choose to advance sequentially from CHRM 2971 through CHRM 2979 to gain additional experience, further refine skills, and participate in competitions.

## CHRM 2972 - Advanced Culinary Competition 2

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2973 - Advanced Culinary Competition 3

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2974 - Advanced Culinary Competition 4

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2975 - Advanced Culinary Competition 5

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of these skills and knowledge introduced in CHRM 2970.

## CHRM 2976 - Advanced Culinary Competition 6

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2977 - Advanced Culinary Competition 7

## 0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2978 - Advanced Culinary Competition 8

0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2979 - Advanced Culinary Competition 9

## 0.0-9.0-3.0

Prerequisite: (1) CHRM 2970
This course is designed for students pursuing excellence through participation on the Culinary Competition Team. This course is a continuation of the skills and knowledge introduced in CHRM 2970.

## CHRM 2980 - Student Manager

0.0-9.0-3.0

Prerequisite: (2) CHRM 2460 and CHRM 2550
Students participate 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
0.0-15.0-3.0

Prerequisite: (1) Instructor approval

Through goal-directed practice in a food- or hospitality-related establishment, students apply classroom knowledge and skills. A minimum of 150 hours of work is required.

## CHRM 2982 - Bakery Student Manager

0.0-9.0-3.0

Prerequisite: (2) CHRM 2280 and CHRM 2460
This course provides practical experience in the operation of a restaurant kitchen and retail bakery from the perspective of a student manager. This experience is gained through training and supervising work related to the Bistro plated dessert station, planning menus, developing recipes, facilitating and assisting in bakery production requests, evaluating staff, determining and controlling costs, merchandising, and providing quality customer service. These duties tie into prior classroom work (sanitation, nutrition, purchasing, cost management, and supervision) in a practical way.

## CHRM 2989 - Hospitality Management Intern

0.0-15.0-3.0

Prerequisite: (1) Instructor approval
The internship allows for integration of course requirements, classroom knowledge, and skills into managerial and leadership practice in a hospitality industry setting. A minimum of 150 hours of work is required.

## CHRM 2990 - Portfolio Development for Bakers

0.0-1.5-0.5

Prerequisite: (2) All Baking and Pastry program option classes are completed or in progress; and instructor approval
Students document all skills gained throughout the Baking and Pastry curriculum through the completion of a culinary and academic portfolio. Students also complete a final project to demonstrate mastery of the entire curriculum. Students complete these requirements via independent study, examination, and small team experiences. Upon completion of this course, students should be eligible to apply for the Culinary Arts and Management Associate in Applied Science degree.

## CHRM 2999 - Portfolio Development for Culinarians

0.0-1.5-0.5

Prerequisite: (2) All Culinary Arts or Culinology program option classes are completed or in progress and instructor approval
Students document all skills gained throughout the Culinary Arts or Culinology curriculum through the completion of a culinary and academic portfolio. Students also complete a final project to demonstrate mastery of the entire curriculum. Students complete these requirements via independent study, examination, and small team experiences. NOTE: Upon completion of this course, students should be eligible to apply for the Culinary Arts and Management Associate in Applied Science degree.

## CNST - Construction and Building Science

## CNST 0050 - Print Reading I - Residential

3.5-0.0-3.5

Prerequisite: None
This course is designed to prepare students for CNST 1010 Print Reading II Residential/Light Commercial. It is also suggested for new students with little or no knowledge of the construction industry. Students gain a basic understanding of symbols and abbreviations used on prints. The course covers types of residential drawings, including floor plans, elevation views, sectional views, detail views, and plot plans. This course does not count toward a degree.

## CNST 1000 - Introduction to Building Construction

3.5-0.0-3.5

Prerequisite: None
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. It covers information on building materials, products, systems, and procedures.

## CNST 1010 - Print Reading II - Residential/Light Commercial 3.5-0.0-3.5 <br> Prerequisite: (1) CNST 0050 or assessment

This course teaches how to read and interpret residential architectural plans, including terms and definitions, architectural drawings, alphabet of lines, description of lines, and floor plan, electrical, section, and mechanical symbols. It emphasizes reading an architect's scale. The course also includes extracting specified information from a set of building specifications and simple sketching procedures.

CNST 1015 - Print Reading III - Commercial
3.5-0.0-3.5

Prerequisite: (1) CNST 1010
This course develops skills needed to interpret plans for commercial construction. It provides students with print reading experience with elements commonly included on prints for large commercial structures. It includes site work, mechanical and electrical systems, structural steel, reinforced concrete, and finish construction.

## CNST 1050 - Introduction to Carpentry

## 3.0-1.5-3.5

Prerequisite: None
This course covers the safe use of hand and power tools. Students practice the proper set up of tools and the manufacture of jigs and templates. They take part in a lab project involving all stationary and hand power tools as well as carpentry hand tools. This course is a must for practitioners who want their tools to perform as designed.

## CNST 1060 - Vinyl Siding Installation

3.0-1.5-3.5

Prerequisite: None
This course provides training and skills needed to work as a vinyl siding installer. It also provides entrepreneurs a foundation of skills and knowledge to form crews in the field of vinyl siding installation.

## CNST 1070 - EIFS and Stucco Finish

3.0-1.5-3.5

Prerequisite: None
This course teaches students to apply two different exterior finishing systems: stucco, a non-insulated cement plaster wall covering, and EIFS, an exterior insulated finishing system. Students apply both in a practical lab experience.

## CNST 1080 - Healthy Homes Foundations

1.0-0.0-1.0

Prerequisite: None
This course gives students a basic knowledge of the Healthy Homes principles. Students learn the importance of healthy homes and how to identify them.
CNST 1085 - International Green Construction Code
3.0-0.0-3.0

Prerequisite: None
This course trains students to properly use the International Green Construction Code.

## CNST 1110 - Construction Safety (10-Hour)

1.0-0.0-1.0

Prerequisite: None
This course provides training outlined by the Occupational Safety and Health Administration (OSHA). This course supplies students with the recommended safety requirements for working in the construction field.

## CNST 1220 - Remodeling and Deconstruction <br> 6.0-1.5-6.5

Prerequisite: (2) CNST 1010 and CNST 1050; or instructor approval
This course prepares students for many of the unforeseen surprises that may occur in the fields of remodeling, renovation, and deconstruction. Students undertake actual remodeling projects such as floor, wall, ceiling, and roof alterations. Students evaluate existing loads and calculate new structural loads for additions using the latest IRC building code and local amendments.

## CNST 1250 - Interior Finish

## 6.0-1.5-6.5

Prerequisite: (2) CNST 1010 and CNST 1050; or instructor approval
This course presents interior finish terms and definitions that are used in the construction field. It covers theory and practical application of various types of wall covering, wall finish, ceiling covering, ceiling finish, interior door hanging, and various applications of interior trim. The course emphasizes estimation of labor and materials in all areas.

## CNST 1255 - Commercial Framing <br> 6.0-1.5-6.5

Prerequisite: (2) CNST 1015 and CNST 1050
This course gives students a hands-on approach to metal stud framing. It covers proper layout procedures and wall types for interior, exterior, furred, structural, and fire-rated walls. Students learn methods of building headers, columns, soffits, and ceilings along with proper construction terms, definitions, specifications, and codes.

## CNST 1262 - Cabinet Design, Manufacturing, and Assembly

9.0-0.0-9.0

Prerequisite: None
This course provides students with automation and computer design knowledge and skills required in the cabinet industry today. AlphaCam design and programming software are used. Students design and export electronic files used to control the Anderson American CNC Router. Students supply their own materials for a project they own at class end, or materials are furnished for college-owned projects.

## CNST 1270-General Painting, Staining, and Cabinet Finishing

2.5-1.5-3.0

Prerequisite: None
This course demonstrates professional painting and finishing techniques. Cabinets completed in CNST 1261 may be finished. Topics include surface preparation, application of finishing materials, and surface preparation for topcoating. Students gain practical experience in the lab using the latest materials and techniques in the construction industry.

## CNST 1350 - Floor, Wall, and Ceiling Framing

## 6.0-1.5-6.5

Prerequisite: (1) CNST 1010 or instructor approval
This course deals with floor framing, wall parts, wall construction, and installation of ceiling joists. Students construct a full-scale house in the indoor lab.

## CNST 1355 - Commercial Finish

6.0-1.5-6.5

Prerequisite: (1) CNST 1255
This course covers the latest and most innovative building materials, techniques, and codes related to commercial finish. Students learn how to install and finish materials, including drywall, fireproofing, acoustical ceilings, doors, windows, and hardware. Students practice applying these materials in a lab setting to develop the skills and knowledge required in the commercial construction field.

## CNST 1370 - Exterior Finish

## 6.0-1.5-6.5

Prerequisite: (2) CNST 1010 and CNST 1050; or instructor approval
This course includes terms and definitions used in the construction field pertaining to exterior finish. It covers theory and practical application of various types of wall covering, roof covering, exterior doors, windows, and trim and emphasizes estimation of labor and materials in all areas. Students install exterior siding, roofing, windows, doors, and roofing materials on a house in the indoor lab.

## CNST 1400 - Introduction to Masonry

6.0-1.5-6.5

## Prerequisite: None

This course emphasizes brick and block construction. Students mix mortar and use the trowel, spread mortar, cut brick and concrete blocks, and level and plumb laid-up units. It includes dry bonding techniques and various brick-block patterns.

## CNST 1410 - Advanced Masonry Construction

6.0-1.5-6.5

Prerequisite: (1) CNST 1400 or instructor approval
Students gain skill and knowledge in brick and stone veneering. Students perform layout and resection of pipe chases, fireplaces, arch work, and columns in practical applications.

## CNST 1500 - Introduction to Concrete

6.0-1.5-6.5

Prerequisite: None
Students learn about preplanning requirements, structural loads, frost line variations, carrying capacities of soils, and building loads and permits. Students conduct various structural stress and load testing in lab projects. Other hands-on work includes forming, placing, and curing concrete pours. Students also practice different concrete finishes (float, trowel, broom, stamped, colored, and exposed aggregate). The course covers estimating costs.

## CNST 1510 - Concrete and Wall Forms

## 6.0-1.5-6.5

## Prerequisite: None

Students learn definitions, concrete forms for footings, piers, columns, foundation walls, and various foundation wall openings. They study fluid pressure checks, rate of pour, and monitoring the pour. The course 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 operations. Students construct a foundation wall form with pilaster door and window openings.

## CNST 2050 - Builders Level, Transit, and Building Layout

## 3.0-1.5-3.5

Prerequisite: None
This course covers common building layout procedures. Students use builders levels, Theodolites, and EDMS to practice actual procedures used in the construction field. They learn to read and shoot elevations using the latest equipment available, including lasers. Students also gain practical experience laying out and staking building sites. The course stresses understanding surveyor's terms and markings.

## CNST 2100 - Construction Safety (30-Hour)

4.5-0.0-4.5

Prerequisite: None
This course provides students with training outlined by the Occupation Safety and Health Administration (OSHA). Many contractors require this course for anyone working in a supervisory capacity.
CNST 2130 - Construction Estimating
7.0-0.0-7.0

Prerequisite: None
Estimating cost in construction prepares students for employment in the field of construction estimating. Students are prepared for this fast moving and changing field with training in electronic takeoffs. This course includes the use of spreadsheets Onscreen Takeoff, Quick Bid, and Blue Beam Revu. Quantity takeoffs are performed using these softwares, as well as by hand, to facilitate an understanding of required mathematical operations. Students design a spreadsheet capable of computing quantities, labor, and materials.

## CNST 2140 - Job Site Management

## 4.5-0.0-4.5

Prerequisite: (2) CNST 1000 and CNST 1010; or instructor approval
Students go beyond the physical erection of a project and concentrate on the procedures and methods used by contractors during the construction and postconstruction phases of a project: systematic planning, organizing, managing, controlling, and documenting job site activities.

## CNST 2150 - Construction Law

3.5-0.0-3.5

Prerequisite: None
This course teaches students the legal rights, duties, and responsibilities of the contracting parties involved in all aspects of the construction industry. It focuses on contract law as the foundation of construction relationships and also includes various duties implied by law. Students 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 contribute practical experience and knowledge in the areas of law, insurance, bonding, government procurement, design, contracting, subcontracting, and supplying construction materials.

## CNST 2360 - Roof Framing

## 6.0-1.5-6.5

Prerequisite: (1) CNST 1010 or instructor approval
This course covers the principles, calculations, and cutting of all components of gable, hip, and valley rafters. Students frame an actual roof on a house in the indoor lab.

## CNST 2380 - Stair Construction

3.0-1.5-3.5

Prerequisite: (1) CNST 1050 or instructor approval
This course deals with the construction of rough and finished stairs. Students learn definitions dealing with various types of stairs, rules for rise and run, and calculation of rises and runs for various specified dimensions. They also estimate materials and perform actual layout assembly of rough and finished stairs.

## 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

Prerequisite: (2) GPA of 2.5 and career certificate or equivalent in framing, concrete, masonry management, cabinetry, or commercial construction; or instructor approval
This internship gives students the opportunity to develop skills in the field and exposes them to established craftspeople. Applications for internships must be made through the program full-time faculty. Based on state guidelines, students
must complete 40 hours of work for each credit hour. NOTE: Students with four or more years of experience in the construction field may waive the internship requirement upon instructor approval. Contact a full-time instructor for more information. Credits toward the degree must be made up in other ways.

## CRIM - Criminal Justice

## CRIM 1010 - Introduction to Criminal Justice $-\uplus$

## 4.5-0.0-4.5

Prerequisite: None
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 $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
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 $\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: None
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-令

4.5-0.0-4.5

Prerequisite: (2) English level I and CRIM 2260
Students learn to observe and document the behavior of crime victims, witnesses, and suspects. Students also learn to accurately describe and record conditions and activities of crime scenes for courtroom presentations. In accordance with the legal guidelines of confidentiality, students maintain logs of classroom and field experiences.

## CRIM 2000 - Criminal Law - O

4.5-0.0-4.5

Prerequisite: None
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 (e.g., arrest, search and seizure, confessions), and the development, application, and enforcement of laws, constitutional issues, and sentencing.

## CRIM 2010 - Introduction to Probation and Parole $-\circlearrowleft$

## 4.5-0.0-4.5

Prerequisite: None
This course surveys the approach to corrections: types of correctional institutions, residents, programs, management issues, and special problems associated with corrections and correctional institutions. It also covers the history, philosophy of adult and juvenile probation, and parole in the United States.

## CRIM 2020 - Legal Issues in Corrections $\checkmark$ ©

4.5-0.0-4.5

Prerequisite: None
This course is an introduction to constitutional issues relating to corrections. Students study court processes with particular emphasis on major cases affecting corrections, including probation and parole.

## CRIM 2030 - Police and Society- $B$

4.5-0.0-4.5

Prerequisite: (1) CRIM 1010
This course examines the role of the police in relationship to the duties of law enforcement and their policing in a diverse society. Specific topics include key demographic trends related to the growth of multicultural communities. Also covered are key issues associated with immigration and how those issues affect law enforcement in their everyday job.

CRIM 2050 - Principles of Interviewing and Interrogation $\because$
4.5-0.0-4.5

Prerequisite: (1) CRIM 1010
This course examines interviews of witnesses, informants, and complainants as a communicative relationship. It includes demonstration, study, and practice of acceptable techniques and procedures in accordance with due process.
CRIM 2120 - Community-Based Corrections - ©
4.5-0.0-4.5

Prerequisite: None
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 covers the balanced approach that reflects a strong emphasis on practical and legal matters. It also discusses the historical, philosophical, social, and legal contexts of community-based corrections.

## CRIM 2150 - Contemporary Issues in Criminal Justice $-\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: (1) CRIM 1010
This course examines some of the critical and prominent issues facing a modern police department and the U.S. court system. The course reviews the increase in the correction population and the use of modern technology, such as biometrics and global positioning tracking systems, in relationship to crime rates. Students evaluate and recommend an approach for the U.S. criminal justice system to better understand and respond to current critical issues.

## CRIM 2190 - Police Field Services $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (1) CRIM 1010
This course is an analysis of the duties, extent of authority, and responsibilities of the uniformed patrol officer. It outlines rationales for the patrol philosophy and practices and presents accepted field techniques and their practical applications.

## CRIM 2220 - Correctional Client $-\mathcal{O}$

4.5-0.0-4.5

Prerequisite: None
This course covers a wide variety of public safety and treatment issues related to a variety of special correctional offender typologies. The course draws from various fields of criminal justice, psychology, and counseling and discusses in detail 12 unique offender types and places a strong emphasis on assessment, diagnosis, and outcomes.

## CRIM 2260 - Criminal Investigation - B

## 4.5-0.0-4.5

Prerequisite: None
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- $-\frac{1}{6}$
4.5-0.0-4.5

Prerequisite: (1) CRIM 1010
This course examines the traditional and current problems that inhibit understanding among all segments of the criminal justice system and the public. It explores methods of creating understanding and confidence by using various means of communication.

## CRIM 2310 - Rules of Evidence $-\nrightarrow$

4.5-0.0-4.5

Prerequisite: None
This course emphasizes the concept of evidence and rules governing its admissibility. It covers theoretical and pragmatic considerations of constitutional requirements affecting evidence and procedure.

## CRIM 2320 - Correctional Facilities $\mathcal{\forall}$

4.5-0.0-4.5

Prerequisite: None
This course discusses various case studies and research in an effort to present balanced and comprehensive coverage of prisons and prisoners. The course examines 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 -3

## 4.5-0.0-4.5

Prerequisite: None
This course provides an overview of the basic concepts of forensic crime scene investigations. The course reviews 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- 3

4.5-0.0-4.5

Prerequisite: None
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 explores 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 2430 - Emergency Response to Terrorism-

## 4.5-0.0-4.5

Prerequisite: None
This course covers the strategic planning, incident management, and intelligence techniques needed to provide the necessary foundation for anti-terrorism preparedness. Topics include infrastructure protection, the National Incident Management System, threat and vulnerability assessments, counter-intelligence measures, and terrorism prevention and deterrence operations. Students learn how best to lead, communicate, and coordinate in response/recovery efforts against terrorism.

## CRIM 2500 - Introduction to Private Security Management- -4.5-0.0-4.5 <br> Prerequisite: None

This course is an overview of history, development, and philosophies of private security within a complex society. The course examines 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 employees, workers, manufacturing, and business infrastructure.

## CRIM 2900 - Special Topics in Criminal Justice

## Variable

Prerequisite: None
This course permits instruction in special content areas not included in other courses in the Criminal Justice program.

## CRIM 2960 - Internship

## Variable

Prerequisite: (3) Completion of at least 30.0 quarter hours within the program; 3.0 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 students. Students, the job site supervisor, a faculty monitor, and the academic dean agree to written goals and objectives as well as evaluation criteria. The Criminal Justice program faculty are responsible for providing a list of criminal justice agencies that accept students for internship positions during the academic program year. All initial internship program arrangements between the intern, the College, and the criminal justice agency are coordinated by the criminal justice faculty. Should students elect to use their own jobs as intern sites, they must perform and be evaluated at positions to which they are not regularly assigned. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## DENT - Dental Assisting

## DENT 1000 - Introduction to Dental Assisting

2.0-0.0-2.0

Prerequisite: None
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. It covers basic terminology necessary for communicating with other dental professionals, the public, and patients and identifying the different types of dental patients and how to work with them in the office.

## DENT 1020 - Dental Office Procedures

3.0-0.0-3.0

## Prerequisite: None

This course provides instruction in the management of the dental assistant's role as an administrative dental assistant. Topics include appointment control, recall programs, collections, letter writing, filing systems, recording fees charged and paid, dental payment plans, prepaid dental care plans, inventory control, and purchasing and disbursements.

## DENT 1100 - Dental Anatomy <br> 4.0-0.0-4.0

Prerequisite: None
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

## 2.5-0.0-2.5

Prerequisite: None
This course of study presents the basics of body structure and function. Students gain an understanding of patterns that enable the body systems to perform as an integrated whole.

## DENT 1140 - Dental Pathology and Microbiology

## 2.5-0.0-2.5

Prerequisite: None
This course covers dental pathology and microbiology. It includes 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

## 2.0-0.0-2.0

Prerequisite: None
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

## 3.0-0.0-3.0

Prerequisite: None
This course includes the basic study of diet and nutrition, its relationship to oral health with emphasis on dietary counseling, and philosophy of preventative dentistry, personal oral hygiene, and systemic and topical fluorides.

## DENT 1200 - Dental Materials

## 4.0-4.5-5.5

Prerequisite: None
This course gives 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. It also covers other materials such as waxes, impression materials, and gypsums. Students polish appliances, and fabricate custom trays, bleaching trays, mouth guards, and temporary crowns and bridges. The course also covers placement and removal of periodontal dressings and temporary crowns.

## DENT 1230 - Dental Specialties I

4.0-0.0-4.0

Prerequisite: None
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
2.0-0.0-2.0

Prerequisite: None
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
2.0-3.0-3.0

Prerequisite: None
This course covers infection control in depth as it relates to dentistry. Topics include universal and standard precautions, methods of disinfection and sterilization, proper use of chemicals and equipment, OSHA's Bloodborne

Pathogens and Hazardous Communications Standards, and current recommendations from the CDC for dental office infection control.

## DENT 1280 - Dental Office Emergencies

## 2.5-0.0-2.5

Prerequisite: None
This course is a study of medical and dental emergencies that may 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 <br> 2.0-1.5-2.5 <br> Prerequisite: None

This course introduces dental film types, anatomical landmarks, mounting of films, generation of $x$-rays, manual film processing, and intraoral paralleling techniques.

## DENT 1320 - Dental Radiology II

3.0-3.0-4.0

Prerequisite: None
This course provides instruction in accessory radiographic techniques, patient management, identification of technique errors, automatic film processing, and preliminary film interpretation. Also included are radiation biology, patient protection, operator protection, and extraoral and digital radiography.

## DENT 1350 - Chairside Assisting I

3.0-3.0-4.0

Prerequisite: None
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. It covers oral diagnosis with a focus on patient records including medical and dental histories and charting using both paper and computer methods for recording all information.

## DENT 1360 - Chairside Assisting II

3.0-3.0-4.0

Prerequisite: None
This course includes a continuation of oral diagnosis with a focus on keeping correct patient records. A detailed study and practical application of maintaining the operating field, placement of topical anesthetic, preparation and proper handling of dental syringes, placement and removal of a rubber dam, placement and removal of matrices, and identifying and utilizing amalgam and composite instruments during an operative procedure is taught during this course.

## DENT 1370 - Chairside Assisting III

3.0-3.0-4.0

Prerequisite: None
This course includes a detailed study and practical application of the following procedures: oral inspection, alginate impressions, model trimming, coronal polish, removal of sutures, oral brush biopsy, pit and fissure sealants, and placement and removal of retraction materials.

## DENT 1991 - Clinical Experience I

## 0.0-7.0-2.5

## Prerequisite: None

This course gives the dental assisting students the opportunity for clinical application of dental assisting techniques by assisting junior and senior students at Creighton University Dental College. This experience includes the areas of oral diagnosis, radiology, oral surgery, periodontics, endodontics, fixed and removable prosthodontics, pediatric dentistry, and operative dentistry. An individual and group conference is held each week with the dental assisting students to discuss their experiences and answer questions they may have about assisting with a dentist.

## DENT 1992 - Clinical Experience II

0.0-24.0-8.0

Prerequisite: None
This course gives the dental assisting students the opportunity to focus on their clinical skills in private or public dental offices or clinics with clinical experience in both general dentistry and specialty fields on a rotating basis. An individual and group conference is held each week with the dental assisting students to discuss their experiences and answer questions they may have about assisting with a dentist.

## DENT 1993 - Clinical Seminar

2.0-0.0-2.0

Prerequisite: None
This course meets once a week during the student's clinical experience to share ideas and unique methods used in the dental office. Dental assisting as a profession is discussed, including memberships and certifications. The laws and ethics governing the dental team are discussed. Completion of resumes and employment interviewing techniques are covered.

## DESL - Diesel Technology

DESL 1000 - Diesel Preventive Maintenance
1.0-6.0-3.0

Prerequisite: None
Students learn the basic shop tools, equipment, and practices to start a career in diesel technology. They study the basics of truck and equipment preventative maintenance and inspecting.

## DESL 1040 - Generator Theory

5.0-3.0-6.0

Prerequisite: None
Students study permanent magnet induction and synchronous ac generators while learning diagnosis and troubleshooting skills. (Formerly UTIL 1040)

## DESL 1050 - Diesel/Automotive Parts Sales

## 1.0-3.0-2.0

Prerequisite: None
Students study diesel engine parts sales. The course uses the Cummins brand diesel engine parts sales system. Lessons learned can easily be applied to other parts sales. Students learn how to look up key engine parts and other related items needed to complete the repair.

## DESL 1110 - Diesel Engine Fuel Systems

2.0-3.0-3.0

Prerequisite: (1) DESL 1230
The course covers fuel injection principles, diesel fuel pumps, nozzles, and hydraulic and electronic injectors.

## DESL 1115 - Alternative Fueled Engines

2.0-3.0-3.0

Prerequisite: None
Students study the alternative fueled engine's ignition and fuel systems. This course covers both current and older systems that are widely used.

DESL 1200 - Fundamentals of Hydraulics
1.0-6.0-3.0

Prerequisite: None
This course covers the basic principles of hydraulic systems and component identification. Activities involving schematic usage and symbol identification enhance students' diagnostic skills.

## DESL 1210 - Electricity and Electronics

4.0-6.0-6.0

Prerequisite: None
Students gain a fundamental understanding of electrical principles and basic introductory electronics used in the diesel technology field. This course presents the basic electronic systems that are used in today's diesel-powered trucks and their engines. The course helps students gain an understanding of diesel engine electricity and electronic application for heavy equipment and on-site power generation. Students investigate the theory, operation, and testing of common systems with hands-on trainers and live work.
DESL 1220 - Advanced Diesel Hydraulics
5.0-3.0-6.0

Prerequisite: (1) DESL 1200
Students study hydraulic systems that are used on heavy equipment that relates closely to systems used on medium- and light-duty construction and utility equipment.
DESL 1230 - Diesel Engine Fundamentals
2.0-6.0-4.0

Prerequisite: None
This course covers diesel engine principles and component identification through lecture and entry-level hands-on engine assembly and disassembly.

## DESL 1301 - CDL for Diesel Technicians I

2.5-0.0-2.5

Prerequisite: (5) Completion of 25.0 credit hours in the Diesel Technology program; complete and pass a DOT physical and drug screen; possess a valid driver's license from the state of residence; be currently enrolled in MCC's Diesel
Technology program or employed as a technician by an MCC Diesel Advisory Council member; and instructor approval

This initial two-week training for the CDL license covers the basic study requirements for all non-vehicle activities necessary to obtain a Class A CDL license.

## DESL 1302 - CDL for Diesel Technicians II

0.0-4.0-1.5

Prerequisite: (4) 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 advanced course completes the study begun in DESL 1301 with four weeks of behind-the-wheel training.

## DESL 1310 - Truck Driver CDL Training I <br> 5.5-9.0-8.5

Prerequisite: (2) Completion of application requirements and approval interview with program faculty
This introduction into CDL training provides students with the basics needed for all non-vehicle activities necessary to obtain employment by major transportation companies.

## DESL 1312 - Beginning Class B CDL Training <br> 5.5-9.0-8.5

Prerequisite: (2) Completion of application requirements and approval interview with program faculty
This introduction to CDL training provides students with the basics needed for all non-vehicle activities necessary to obtain employment with major transportation companies.

## DESL 1320 - Truck Driver CDL Training II

4.0-16.0-9.0

Prerequisite: (3) DESL 1310; possession of a CDL learner's permit; and possession of a valid driver's license
Corequisite: EMSP 1010
During this advanced stage, training includes instruction and hands-on experience in safely driving and backing a Class A combination vehicle. Students complete EMSP 1010 while attending the DESL 1320 course. Students also participate in a professional defensive driving course and have the opportunity to drive on short road trips. This course prepares students to take the DMV CDL exam, which upon passing qualifies students to operate a Class A commercial vehicle.

## DESL 1322 - Advanced Class B CDL Training

6.0-10.0-9.0

Prerequisite: (2) DESL 1312 and possession of a CDL learner's permit Corequisite: EMSP 1010
This course covers advanced CDL training. Topics include instruction and handson experience in safely driving and backing a Class B vehicle. Students complete EMSP 1010 while taking DESL 1322. Students participate in a professional defensive driving course and drive on short road trips. The course prepares students to take the DMV CDL exam, qualifying them to operate a Class B commercial vehicle.

## DESL 1620 - Climate Control/Heating and Air Conditioning

2.0-6.0-4.0

Prerequisite: (1) DESL 1210
This course covers diesel heating, air conditioning, and support systems in-depth. Students troubleshoot and make repairs in the shop with a variety of trucks and equipment.

## DESL 2040 - Power Generator Applications

5.0-3.0-6.0

Prerequisite: (2) DESL 1040 and DESL 1115
Students study the specific application of stand-by and emergency power generation. This course covers theory and diagnostic applications. (Formerly UTIL 2040)

## DESL 2100 - Heavy Duty Drivetrain

2.0-6.0-4.0

Prerequisite: None
Students learn to repair and maintain medium- and heavy-duty truck clutches, transmissions, drivelines, and differentials.

## DESL 2110 - Heavy Equipment Drivetrain

## 4.0-6.0-6.0

Prerequisite: None
Students study heavy equipment traction drives, brake systems, differentials, and their steering systems along with track and suspension systems.

DESL 2120 - Automatic and Automated Drivetrains
1.0-6.0-3.0

Prerequisite: None
Students learn to analyze codes, diagnose problems, rebuild, repair, and properly maintain Allison automatic and other automated shift truck drivetrains in a professional setting.

DESL 2150 - Truck ABS and Brakes
2.0-6.0-4.0

Prerequisite: None
This course with professional lab presentations studies, analyzes, and repairs ABS systems on both medium- and heavy-duty trucks. Students learn to repair, rebuild, and maintain air brake systems through lab experiences in wheel-end repair and maintenance.

## DESL 2200 - Steering and Suspension

2.0-6.0-4.0

Prerequisite: None
This course is a study of heavy-duty truck steering and suspension systems. Students learn to repair, align, and maintain these systems.

## DESL 2210 - Diesel Engine Controls

1.0-6.0-3.0

Prerequisite: (2) DESL 1110; and DESL 1210 or verifiable experience
Students learn advanced technology engine electronics theory and diagnosis and repair of engine control systems. Students study the most common recent diesel engine brands in a professional laboratory setting.
DESL 2215 - Diesel Generator Controls
2.0-3.0-3.0

Prerequisite: (2) DESL 1110 and DESL 1210
Students study the electronic and mechanical governor controllers and their inputs for both diesel and alternative fueled generator engines.

## DESL 2220 - Diesel Engine Diagnostics <br> 2.0-6.0-4.0

Prerequisite: (3) DESL 1110, DESL 1230, and DESL 2210
Students learn to use the latest diagnostic equipment and practice the hands-on skills needed to repair diesel engines.

## DESL 2230 - Diesel Engine Rebuild

1.0-9.0-4.0

Prerequisite: (1) DESL 1230 or verifiable experience
Students learn to do both in-chassis and out-of-chassis diesel engine rebuilds.

## DESL 2240 - Emissions and Maintenance

1.0-6.0-3.0

Prerequisite: (1) DESL 1230 or verifiable experience
Students learn how new technology emission control systems work and how to tune-up and maintain the latest diesel engines after-treatment systems.

## DESL 2250 - Field Service Maintenance

5.0-3.0-6.0

Prerequisite: (1) DESL 1302 or valid Class B CDL
This course refines the safety, productivity, and situational awareness that is 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

Prerequisite: None
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

## 0.0 - variable - 6.0

Prerequisite: (2) DESL 1320 and application approved by program faculty
This course gives students an opportunity to review with a CDL instructor the driving skills learned during the students' first weeks of employment. This also
allows for additional instruction by a 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

0.0 - variable - 8.0

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 with 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
0.0 - variable - 8.0

Prerequisite: (2) DESL 2981 and instructor approval
Corequisite: DESL 2230
This second internship gives advanced students 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. NOTE: The corequisite DESL 2230 can be taken concurrently or have previously been completed.
DESL 2983 - Diesel Internship III
0.0 - variable - 4.0

Prerequisite: (1) Instructor approval
This internship gives students a real experience in the diesel trade and solidly instills previously learned college classroom material while opening future employment opportunities.

## DESL 2984 - Diesel Internship IV

0.0 - variable - 4.0

Prerequisite: (1) DESL 1302
This internship is used to complete diesel technology students' degrees by providing a second level of hands-on learning in the real-work environment.

## DIMA - Design, Interactivity, and Media Arts

## DIMA 1100 - Desktop Publishing Basics - InDesign

3.5-3.0-4.5

Prerequisite: None
Students learn the basic operation of Adobe InDesign publishing software. They work through a series of projects starting with simple functions and work up to complex tasks using the software's tools and features. The course also covers word processing for desktop publishing and creating graphics files for printing purposes.
DIMA 1110 - Digital Design: Raster
3.5-3.0-4.5

Prerequisite: None
This course explores the visual and technical aspects of digital drawing and design using raster (resolution dependent) applications. Students acquire a basic understanding of computer graphics tools, menu functions and technical vocabulary through a series of exercises that explore the process of creative problem-solving and the theories and principles of drawing and design.

## DIMA 1120 - Digital Design: Vector

3.5-3.0-4.5

Prerequisite: None
This course focuses on the visual and technical processes of digital design using vector (resolution independent) applications and includes experience with raster/bitmap software. Students learn a vector software application through a series of exercises and projects that explore creative problem-solving while applying graphic design theory and principles.
DIMA 1200 - Illustration I

## 3.5-3.0-4.5

Prerequisite: (4) ARTS 1010; ARTS 1020; DIMA 1110; and DIMA 1120
This course covers the major movements in illustration. It also emphasizes media variety and techniques related to technical and pictorial illustration.

DIMA 1220 - Character, Narrative, and Storyboard Development
3.5-3.0-4.5

Prerequisite: (1) ARTS 1010
This course explores the basic principles of film structure and animation through observation, concept, narrative development, character design, and storyboard creation. It emphasizes the practice of drawing as a communication process to visualize stories that work as strong animation. Central activities include collaboration, brainstorming, oral presentation, and critiques.

## DIMA 1230 - Drawing for Electronic Media <br> 3.5-3.0-4.5

Prerequisite: (1) DIMA 1110 or DIMA 1120
This course emphasizes the concepts and processes involved with drawing directly into the computer. Using a digitizing pen and interactive LCD display as the primary tool and bitmap and vector applications as the primary medium, students explore form and space through direct and indirect observation, including studies involving the human figure and motion. Drawing the human form in space prepares students for sequential art and animation and further develops essential drawing and design skills. Traditional drawing tools and materials are incorporated.

## DIMA 1305 - Concept Development <br> 3.5-3.0-4.5 <br> Prerequisite: None

This course provides a basic introduction to graphic design. It emphasizes creative problem-solving through the use of thumbnail and rough sketches.

## DIMA 1310 - Typography I <br> 3.5-3.0-4.5

Prerequisite: (1) DIMA 1120
This course introduces type history, terminology, specifications, and design. Students apply fundamental criteria to select and use typefaces and fonts.

## DIMA 1320 - History of Graphic Design <br> 3.5-3.0-4.5

Prerequisite: (1) DIMA 1310
This course covers the major developments and advancements in graphic design from the mid-15th century to the 21st century.
DIMA 1325 - Layout
3.5-3.0-4.5

Prerequisite: (3) DIMA 1100; DIMA 1305; and DIMA 1310
Students combine typography and imagery to create one-page, multi-panel, basic multi-page, and large-format layouts.

## DIMA 1350 - Print Overview

## 4.5-0.0-4.5

Prerequisite: None
This course is an overview of the printing industry and its relevance to the graphic designer. It explores printing processes and their limitations and discusses prepress and post-press operations. Students learn about paper and its specifications. Students also learn how to make folding dummies. An important part of this class is the tours of local printing companies.

## DIMA 1400-Game Design Fundamentals

3.5-3.0-4.5

Prerequisite: None
This course explores the practice and theory of interactive art. Students study the history of both analog and digital games and pursue the creative possibilities of interaction and play-based systems.

## DIMA 1410-2-D Animation and Compositing I

3.5-3.0-4.5

Prerequisite: (2) DIMA 1220 and ARTS 1010
Students explore animation compositing software and techniques as they create 2-D animation using traditional cell techniques and computer-based 2-D animation programs. This course strengthens drawing skills, provides experience with collaborative production, and increases knowledge of animation concepts.

## DIMA 1411 - History of Animation <br> 4.5-0.0-4.5

Prerequisite: None
This course surveys the major developments in film animation from its beginnings to the present day. Students acquire an understanding of the different styles and evolution of animation as an art form and as a means of visual communication that reflects both social and historical contexts.

## DIMA 1450 - Design for Motion Graphics I

3.5-3.0-4.5

Prerequisite: None
This course surveys the major developments in film animation from its beginnings to the present day. Students acquire an understanding of the different styles and evolution of animation as an art form and as a means of visual communication that reflects both social and historical contexts.

## DIMA 1455 - Introduction to Stop-Motion Animation

3.5-3.0-4.5

Prerequisite: None
This course explores the art of movement and visual art concepts through the techniques of stop-motion animation and provides a thorough understanding of stop-motion fundamentals. Students produce all animations using a DSLR camera, stop-motion, and basic audio software. The course addresses lighting techniques, including claymation, puppet-model-making, cut-out animation, lipsyncing, and backgrounds/environments. Recommended readings, lectures, and demonstrations provide the critical skills to study a variety of stop-motion films screened in the course. Students produce a stop-motion short for their final project.

## DIMA 1500 - Web Design

3.5-3.0-4.5

Prerequisite: (1) DIMA 1120
This course introduces students to the skills and competencies required to create original web graphics, media, and page designs using industry standard software applications and languages such as HTML and CSS. Students design and construct websites with emphasis on aesthetics, organization, and creative problem-solving skills.

## DIMA 1510 - Interactive 2-D Design I

3.5-3.0-4.5

Prerequisite: (1) DIMA 1120
This course teaches the concepts and techniques necessary to design and produce interactive projects that include computer graphics and animation and desktop video. Students apply design elements and principles, animation, and interactive objects using interactive software.

## DIMA 1620 - Introduction to 3-D Modeling and Animation

 3.5-3.0-4.5Prerequisite: None
This course is an introduction to the production of motion picture graphics using
3-D modeling and animation software. Students' study and practice techniques of 3-D model execution and scene design with light and camera placement.

## DIMA 2200 - Illustration II

3.5-3.0-4.5

Prerequisite: (1) DIMA 1200
This course covers pictorial problem-solving with emphasis on art direction and personal style of expression.

## DIMA 2210 - Electronic Illustration

3.5-3.0-4.5

Prerequisite: (1) DIMA 1120 or PHOT 1025
This course explores advanced illustration concepts and techniques through vector software combined with raster software. The course emphasizes concept development and personal style along with demonstrations of computer techniques. Output is both print form and animation.

## DIMA 2300 - Logo Design and Branding

3.5-3.0-4.5

Prerequisite: (2) DIMA 1320 and DIMA 1325
This course covers branding and identity design. It emphasizes symbolism, conveying ideas through abstract imagery, and creating elements of a brand identity.
DIMA 2310 - Information Design
3.5-3.0-4.5

Prerequisite: (1) DIMA 2300
This course covers information design. It emphasizes analyzing verbal and statistical data and best approaches to translating data into graphic formats that are both functional and aesthetically engaging. The course also covers wayfinding and usability.

DIMA 2350 - Typography II
3.5-3.0-4.5

Prerequisite: (2) DIMA 1310 and DIMA 1325
This advanced course explores typographic concepts that integrate advanced design philosophies. Students examine type as both an analytical and structured medium as well as a metaphorical element.
DIMA 2351 - Package Design
3.5-3.0-4.5

Prerequisite: (1) DIMA 1325
This course presents challenges in the design of packages and the 3-D graphic design process. It emphasizes material selection, fabrication, and structural design.
DIMA 2352 - Publication Design
3.5-3.0-4.5

Prerequisite: (1) DIMA 1325
This course covers the design and production of multi-page printed publications. It covers a variety of formats, ranging from mass media to special interest.

## DIMA 2410-2-D Animation and Compositing II

3.5-3.0-4.5

Prerequisite: (1) DIMA 1410
Students create original 2-D animation focusing on character and story development. Building on skills acquired in DIMA 1410, students 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. Students further explore compositing and animation soffware.

## DIMA 2450 - Design for Motion Graphics II

3.5-3.0-4.5

Prerequisite: (1) DIMA 1450
This course is a continuation of DIMA 1450 Design for Motion Graphics I with an intense focus on design, advanced techniques, and high-end concept creation for broadcast. Students continue to explore design concepts as they relate to motion graphics design, incorporating additional current industry-standard software as design tools. Topics include kinetic text, masking, expressions, motion tracking, 3D layers, cameras, rotoscoping and paint tools, and compositing. Projects are fewer and more in-depth than DIMA 1450 withe emphasis on creative solutions.

## DIMA 2500 - Web Design Partnership Project

3.5-3.0-4.5

Prerequisite: (4) DIMA 1500; DIMA 1510; INFO 1311; and INFO 2340
This course is a partnership between a DIMA web design student and an INFO web development student. Students complete an independent project designing and publishing a website for an entrepreneur, small business, or nonprofit organization.

## DIMA 2510 - Interactive 2-D Design II <br> 3.5-3.0-4.5

Prerequisite: (1) DIMA 1510
This course is a continuation of DIMA 1510 with more complex interactive projects that present new challenges, such as scripting and variable dynamic applications.

## DIMA 2620-3-D Character Development

3.5-3.0-4.5

Prerequisite: (1) DIMA 1620
This course builds on the introductory topics presented in DIMA 1620 with further exploration of the techniques of modeling, material definition, and animation that are the foundation of 3-D graphics for motion pictures and games. It emphasizes the development of 3-D characters, materials, and motion control. Students present an animated character at the conclusion of the course.

## DIMA 2625 - 3-D Modeling for Animation and Games

3.5-3.0-4.5

Prerequisite: (1) DIMA 1620
This course builds on the topics presented in DIMA 1620 with further explorations of the techniques of modeling, material definition, and animation. It emphasizes the development of 3-D models with techniques that are particularly suitable for games.

## DIMA 2640-3-D Lab

3.5-3.0-4.5

Prerequisite: (1) DIMA 2620; or DIMA 2625; or DIMA 2700
This course requires an animation or game 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 product. Students present an animation or game at the conclusion of the course.

## DIMA 2700-3-D Game Development

## 3.5-3.0-4.5

Prerequisite: (1) DIMA 1620
This course is an introduction to the production of motion picture graphics using 3D modeling and animation software. Techniques of 3-D model execution and scene design with light and camera placement are practiced and refined.

## DIMA 2810 - Portfolio Development

3.5-3.0-4.5

Prerequisite: (1) DIMA 2200 or DIMA 2310
This is the DIMA graphic design/illustration capstone course. Students create a comprehensive final portfolio by revising projects from previous courses and/or creating new work. The course also covers job-seeking skills specific to the profession and requires students to create an identity suitable for job seeking.

## DIMA 2820 - Web Design Portfolio Development 3.5-3.0-4.5 <br> Prerequisite: (1) DIMA 2500

This course is a capstone experience for students completing the web design concentration of the DIMA program. Each student completes a comprehensive individual web design portfolio representative of their technical and aesthetic accomplishments in the program.

## DIMA 2840 - Projects Development

3.5-3.0-4.5

Prerequisite: (1) Instructor approval
This course is a capstone experience for the students completing the Design and Interactive Media Arts program. The primary activity of the course is the students' amalgamations of technical and aesthetic accomplishment into projects that are representative of individual achievement and principal to the students' portfolio.

## DIMA 2900 - Special Topics in DIMA

Variable
Prerequisite: (1) Instructor approval
This course is designed to permit instruction in special content areas not included in other courses of the Design and Interactive Media Arts program.

## DIMA 2981 - Internship

Variable
Prerequisite: (2) 54.0 credit hours in DIMA and instructor approval
This internship program provides students with the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. Based on state guidelines, students must complete 40 hours of work for each credit hour. Students must have completed 54.0 credit hours in their discipline to be eligible for an internship. Interested students must contact program faculty to develop an internship to meet their academic and career goals. NOTE: Previous on-the-job training or work experience may not be applied to fulfill the requirements of this course.

## DRAF - Mechanical Drafting Technology

## DRAF 1100 - AutoCAD Fundamentals

9.0-0.0-9.0

Prerequisite: None
This course introduces computer-aided design methods using AutoCAD software, It covers drawing techniques and terminology using ANSI standards, text creation and editing, dimensioning, AutoCAD menus, file management, plotting, and drawing and display commands. Other AutoCAD commands include model space and layout, viewports, polylines, and use of attributes. NOTE: 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)

9.0-0.0-9.0

Prerequisite: (1) DRAF 1100
This course presents dimensioning techniques that apply to manufactured products. It introduces geometric dimensioning and tolerancing used in the selection and application of dimensions. Students use the micrometer, caliper, and other precise measuring instruments to measure actual manufactured products. They examine fits and allowances and current ANSI standards. Students complete lab assignments using CAD software.

## DRAF 1300 - Inventor Fundamentals

9.0-0.0-9.0

Prerequisite: None
This course provides an understanding of the features and functions of Inventor software. It examines principles of solids modeling and parametric design and covers complex part modeling techniques, drawing view creating and editing, and assembly modeling. Students also learn annotations, dimensions, tables, and bills of material. This is a hands-on, project-based course.

## DRAF 1400 - Manufacturing Process Design <br> 9.0-0.0-9.0

Prerequisite: (1) DRAF 1100
This course examines the design process as it relates to manufactured products. Students also examine the materials and processes found in the manufacturing industry. They study the properties and processing of metals, including machining, welding, forging, casting, and forming. Working with prototypes is emphasized as well. Drawings are completed using the CAD system.

## DRAF 2100 - SolidWorks Fundamentals

## 9.0-0.0-9.0

Prerequisite: None
Students use SolidWorks, a parametric solid modeling and rendering software, to model parts, drawings, and assemblies. Topics include sweep, loft, extrude, and revolve. The course also features top-down assembly modeling. This is a handson, project-based course.

## DRAF 2200 - Machine Design Principles <br> 9.0-0.0-9.0

Prerequisite: (1) DRAF 1100
Students complete detail and assembly drawings on the CAD system with regard to the numerous design considerations found in machine controls, power transmissions, seals, gears, and mechanical linkages. They look at design considerations as they pertain to mechanisms that change speed and movement of various industrial machines. Students use CAD software to draw, design, and analyze the mechanisms.

DRAF 2300 - Creo (Pro/E) Fundamentals

## 9.0-0.0-9.0

Prerequisite: None
This course examines the principles of solids modeling and parametric design using Creo (Pro/ENGINEER) software. It also covers the understanding of part modeling, assembling modeling, management, and troubleshooting. The course includes views, assembly drawings, dimension and notes, tables, symbols, bills of material, and drawings of complex assemblies. This is a hands-on, project-based course.

## DRAF 2400 - Tool Design Processes

9.0-0.0-9.0

Prerequisite: (1) DRAF 1100
This course is a comprehensive study of the principles of the design for jigs and fixtures, dies and gages. It examines the study of tool steel and other materials. Students explore use of standard components, vendor catalogs, handbooks, and the CAD system.

## DRAF 2900 - Special Topics in Mechanical Design Technology 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
This internship provides students the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. To develop an internship to meet their academic and career goals, interested students must contact program faculty or the appropriate academic dean. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## ECED - Early Childhood Education

## ECED 1050 - Expressive Arts $\checkmark$ 色

## 4.5-0.0-4.5

Prerequisite: None
This course covers 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. Curriculum is for 3 to 8 years of age. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1060-Observation, Assessment, and Guidance

 4.5-0.0-4.5Corequisite: ENGL 1010. The corequisite ENGL 1010 can be taken concurrently or have previously been completed. ENGL 1210, ENGL 1220, or ENGL 1230 can also satisfy the corequisite requirement and can be taken concurrently or have previously been completed. For students planning to transfer, ENGL 1010 is the better choice.

This course introduces a variety of observation, assessment, and guidance strategies used in early childhood education settings for birth through age 8. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1110 - Infant and Toddler Development $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course focuses on typical and atypical development of children in the prenatal period of development through 36 months of age. It examines planning curriculum in the domains of physical growth and motor skills, cognition, language, and social and emotional development. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1120 - Preschool Child Development - ß

4.5-0.0-4.5

Prerequisite: None
This course focuses on typical and atypical development of the child ages 3 to 5 years in the domains of physical growth and motor skills, cognition and language, and social/emotional development. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1150 - Introduction to Early Childhood Education $\smile$

4.5-0.0-4.5

Prerequisite: None
This course is an overview of early childhood education, history, and trends. It examines the philosophies of various programs, diversity, inclusion, licensing standards, current legislation, professionalism, and advocacy. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1160 - Early Language and Literacy $ß$

4.5-0.0-4.5

Prerequisite: (3) Take two courses from ECED 1110, ECED 1120, ECED 1230; and one course from ENGL 1010, ENGL 1210, ENGL 1220, ENGL 1230

This course focuses on the development of literacy and language skills from birth to age 8. Students plan and prepare developmentally appropriate literacy and language activities. NOTE: This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 1220 - Prepracticum

1.5-0.0-1.5

Prerequisite: None
This course provides an orientation to practicum experiences in the Early Childhood Education program. Students study child care licensing requirements for their state, obtain a current health report, and have their names cleared through appropriate background checks. Students understand practicum expectations and responsibilities, methods of evaluation, and the importance of professionalism in the work place. NOTE: Prepracticum should be taken the quarter prior to the student's first anticipated practicum.

## ECED 1221 - Infant and Toddler Practicum

0.0-9.0-3.0

Prerequisite: (4) ECED 1060, ECED 1110, ECED 1150, and ECED 1220
Students work with infants and toddlers ( 6 weeks through 2 years) 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. Students spend 45 hours with infants and 45 hours with toddlers and plan a few experiences appropriate for this age group. Students are required to attend bi-monthly one-hour seminar sessions. NOTE: Students enrolling in the ECED practica should register through the Early Childhood Practicum website at www.mccneb.edu/ecp.

ECED 1230 - School-Age Child Development and Programming $\Theta$
3.0-0.0-3.0

Prerequisite: None
This course focuses on typical and atypical development of the child ages 5 through 12 years. This course examines program design in out-of-school care that addresses the domains of physical growth and motor skills, cognition and language, and social/emotional development. This course requires a minimum of four field experience contact hours within early childhood education settings. (Formerly School-Age Child Development)

## ECED 1240 - Preschool- and School-Age Practicum

## 0.0-9.0-3.0

Prerequisite: (4) ECED 1050; ECED 1110; ECED 1120; and ECED 1221 Corequisite: ECED 1230
Students work with preschool- and school-age children 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 development. Students spend 45 hours with the preschool-age children and 45 hours with school-age children and plan a few experiences appropriate for this age group. Students are required to attend bi-monthly one-hour seminar sessions with the assigned instructor. NOTE: The corequisite ECED 1230 can be taken concurrently or previously completed. Students enrolling in the ECED practica should follow the procedures on the Early Childhood Practicum website at www.mccneb.edu/ecp.

## ECED 1260 - Children's Health and Nutrition - B <br> 4.5-0.0-4.5 <br> Prerequisite: None

Students gain an understanding of the inter-relatedness of health, safety, and nutrition in the life of a young child, birth through age 8. Students learn about health appraisals and appropriate assessment tools. They make an in-depth analysis of the infectious process and effective control of communicable diseases and acute illness found in the early childhood years and settings. The course examines safety management and the handling of child abuse and neglect. Students learn appropriate nutritional guidelines and practices for planning meals and snacks in the classroom. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2050 - Children with Exceptionalities - B

## 4.5-0.0-4.5

Prerequisite: (2) 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. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2060 - Early Childhood Education Curriculum Planning 4.5-0.0-4.5 <br> Prerequisite: (3) ECED 1240; ECED 1150; and ECED 1160

This course prepares students to plan a developmentally appropriate curriculum and environments for children 3 to 8 years of age. Topics include writing goals and objectives, lesson plans, daily schedules, working with parents, and inclusionary practices. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2061 - Child Guidance Techniques <br> 4.5-0.0-4.5

Prerequisite: (1) ECED 1060
This course focuses on the techniques teachers can use to help children between birth and 8 years of age develop pro-social behaviors. Emphasis is placed on the foundation of guidance coming through the understanding of child development and observational skills. Indirect and direct guidance techniques are examined. The indoor and outdoor environments along with developmentally appropriate curriculum are emphasized. Focus is placed on prevention rather than discipline within the family and cultural context. Finally, students also explore techniques for dealing with challenging behaviors that can be exhibited in the classroom. Outcomes for this course emphasize application of the techniques studied. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2070 - Family and Community Relationships $-\forall$ <br> 4.5-0.0-4.5

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.

This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2090 - Early Childhood Student Teaching Practicum 0.0-18.0-6.0 <br> Prerequisite: (3) ECED 1160; ECED 2050; and ECED 2060

Students work closely with a supervising teacher to develop skills in management, environmental planning, and curriculum development. Students may select the age group with whom to specialize. Students are expected to select and develop materials for interest centers and develop and implement daily lesson plans. Students are required to attend bi-monthly one-hour seminar sessions with the assigned instructor. NOTE: Students enrolling in the ECED practica should register through the Early Childhood Practicum website at www.mocneb.edu/ecp.

## ECED 2091 - Early Childhood Administrative Practicum <br> 0.0-6.0-6.0

Prerequisite: (5) ECED 1060; ECED 1221; ECED 1240; ECED 1260; and ECED 2450; or full-time instructor approval
Students work closely with a director/administrator of an early childhood education program. Students gain experiences in policy review, record keeping, staff management and training, staff supervision, budgeting, and hiring. Other experiences can include program management of spatial resources, health and safety programs, foodservice operations, parent relations, and utilization of technology in the operation of an early childhood program.

## ECED 2095 - Current Topics in Early Childhood Education $-B$ 4.5-0.0-4.5

Prerequisite: (1) Completion of 15.0 ECED credit hours as stated in the College catalog
Students investigate current topics of interest to early childhood professionals. They select articles and provide written and oral critiques. Students also develop a professional porffolio that demonstrates their competencies. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2450 - Administration of Early Childhood Education Programs $\checkmark \nrightarrow$ 4.5-0.0-4.5

Prerequisite: (1) Completion of 9.0 ECED credit hours
Students gain knowledge and planning skills in all of the procedures needed to operate early childhood education programs. They analyze policy-making, record keeping, staff management and training, supervision, budgeting, hiring, and dismissal of staff procedures. In addition, the course explores program management of spatial resources, health and safety programs, foodservice operations, parent relations, and future trends in the operation of early childhood settings. This course requires a minimum of four field experience contact hours within early childhood education settings.

## ECED 2900 - Special Topics in Child Care

Variable
Prerequisite: None
This course allows the Early Childhood Education program to design courses to meet the specific needs of an agency, organization, education program, or group.

## ECON - Economics

## ECON 1000 - Macroeconomics -3

## 4.5-0.0-4.5

Prerequisite: None
This course explores theories of employment, national income, inflation, and economic growth. Topics include income theories, savings and investment, business fluctuations, inflation, growth theories, and monetary and fiscal policies. NOTE: It is strongly recommended BSAD 1000 be taken prior to ECON 1000 and ECON 1100, as well as completing math requirements.

## ECON 1100 - Microeconomics $-\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: None
Microeconomics presents the theory and application of the four market structures: pure competition, monopolistic competition, oligopoly, and monopoly. Students determine the revenue, costs, output, and prices for each market structure along with the social implications of each market form. In addition, the course analyzes various social issues such as consumer choice, pollution, healthcare, public works projects, and poverty transfer programs using the microeconomic principles of elasticity, benefit and cost, and diminishing returns analysis. NOTE: It is strongly recommended BSAD 1000 be taken prior to ECON 1000 and ECON 1100, as well as completing math requirements.

## ECON 2720 - International Economics

4.5-0.0-4.5

Prerequisite: (2) ECON 1000 and ECON 1100
This course presents a broad overview of the fundamentals of international business and trade and familiarizes students with the basic terminology, key concepts, and issues unique to the subject. Students study the global economy including international trade, investments, and the business environment. They study the management of multi-national firms in the context of the international financial system. NOTE: It is strongly recommended that students complete math requirements prior to taking economics courses.

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.

## EDUC - Education

## EDUC 0090 - Math Praxis Tutorial角

1.0-0.0-1.0

Prerequisite: None
This course prepares students for the Praxis 1 Pre-Professional Skills Math Test, necessary for students entering a teacher education program. Students conduct self-paced practice tests and learning activities.

EDUC 0091 - Reading Praxis Tutorial-B
1.0-0.0-1.0

Prerequisite: None
This course prepares students for the Praxis 1 Pre-Professional Skills Reading
Test, necessary for students entering a teacher education program. Students conduct self-paced practice tests and learning activities.

EDUC 0092 - Writing Praxis Tutorial $-\mathcal{B}$
1.0-0.0-1.0

Prerequisite: None
This course prepares students for the Praxis 1 Pre-Professional Skills Writing
Test, necessary for students entering a teacher education program. Students conduct self-paced practice tests and learning activities.

EDUC 1110 - Introduction to Professional Education
4.5-0.0-4.5

Prerequisite: None
An overview of education in the United States viewed in terms of history, philosophy, finance and governance, this course encourages critical thought regarding the role of education in our multicultural society, the role of the teacher, and educational practices in schools. The course is designed to help students explore education as a prospective career.

## EDUC 1700 - Professional Practicum

Variable
Prerequisite: (1) Instructor approval
This course is designed to acquaint students with the classroom situation and atmosphere by participation in the teaching-learning process. It includes observation and assistance in classroom-related activities under supervision of an experienced teacher.

## EDUC 2000 - Educational Psychology <br> \section*{4.5-0.0-4.5}

Prerequisite: None
This course is a study of the three focal areas in education: the learner, the learning process, and the learning environment. It is a survey of the principles of psychology as applied to classroom teaching with emphasis on development, learning, motivation, evaluation, adjustment, and educational techniques and innovations.

## EDUC 2010 - Human Growth and Learning ©

4.5-0.0-4.5

Prerequisite: (3) Successfully complete the PPST; EDUC 2020; and EDUC 2030
This course focuses on the growth, development, and learning processes of the individual from conception through adolescence. The class emphasizes how current educational practices and theories of development and learning impact and influence each other. Students investigate how physical and emotional development of children and teens impact their cognitive growth. Students 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®

## 4.5-0.0-4.5

Prerequisite: None
This course provides the philosophical, historical, and social foundations background that enables teacher candidates to understand their roles as teachers and as orchestrators of the learning environment. The content is based on a study of the driving social forces as they relate to different time periods and philosophic positions and the impact these forces have in shaping the role of education. Teacher candidates study and understand the national and state standards relevant to K-12 education and teacher preparation in the United States. They acquire competency in using education technologies such as Internet-based course delivery systems, database software, and digital portfolios. Teacher candidates develop dispositions for ethics in teaching and a high-level commitment for the teaching profession.

## EDUC 2030 - Human Relations in Education® 4.5-0.0-4.5 <br> Prerequisite: None

This course is designed to increase multicultural knowledge and positively impact the diversity disposition of pre-service teachers. It is designed to help pre-service teachers become more aware of ways to motivate and positively impact the youth they encounter in their future classrooms. High value is placed on the discussion of human understanding, tolerance, and the acceptance of multiple worldviews. Teacher candidates 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 prescribed learning activities. Teacher candidates also examine the role of attitudes in implementing and assessing learning experiences. The course places special emphasis 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.

## EDUC 2590 - Instructional Technology

4.5-0.0-4.5

Prerequisite: None
This course is an introduction to a variety of technologies and strategies for use in the instructional process to accommodate all learners. The focus is also on the social, ethical, legal, and human issues surrounding the use of technology. NOTE: It is strongly recommended that students complete ECUC 1110 prior to taking this class.

## ELAP - Electrical Apprenticeship

## ELAP 1110 - Electrical IA <br> 7.0-0.0-7.0 <br> Prerequisite: None

This course is the introduction to the electrical trade. It covers the math used in electrical calculations, Ohm's Law, and electrical fundamentals.

## ELAP 1120 - Electrical IB

7.0-0.0-7.0

Prerequisite: (1) ELAP 1110
This course continues with the electrical fundamentals from Electrical IA and introduces apprentices to the National Electrical Code (NEC). This course also includes wiring basic electrical circuits and bending conduit.

## ELAP 1210 - Electrical IIA

7.0-0.0-7.0

Prerequisite: (1) ELAP 1120
Apprentices learn how to layout and install branch circuits in all areas of residential construction with emphasis on the National Electrical Code.

## ELAP 1220 - Electrical IIB

7.0-0.0-7.0

Prerequisite: (1) ELAP 1210
This course is an introduction to the layout and construction of residential electrical systems. It emphasizes the National Electrical Code as it relates to residential wiring. Apprentices calculate electrical service requirements, size overcurrent devices, and different conductors.

ELAP 2310 - Electrical IIIA
7.0-0.0-7.0

Prerequisite: (1) ELAP 1220
This course is an introduction to the design and construction of commercial electrical systems. It emphasizes the National Electrical Code as it relates to commercial electrical systems.

ELAP 2320 - Electrical IIIB
7.0-0.0-7.0

Prerequisite: (1) ELAP 2310
This course is a continuation of Electrical IIIA. Apprentices learn to calculate electrical service and branch circuits requirements for commercial electrical systems.

ELAP 2410 - Electrical IVA
7.0-0.0-7.0

Prerequisite: (1) ELAP 2320
This course deals with motor control circuits and electrical devices used in commercial electrical systems. Apprentices use the National Electrical Code to properly size branch circuit and feeder conductors and over-current protection for motors.

## ELAP 2420 - Electrical IVB

7.0-0.0-7.0

Prerequisite: (1) ELAP 2410
This course is a continuation of Electrical IVA. Apprentices use the National Electrical Code to calculate feeder loads, size panel boards, and parallel conductors. This course also covers transformer theory and low-voltage systems.

## ELAP 2550 - Journeyman Test Prep Course

3.0-0.0-3.0

Prerequisite: None
This course covers relevant parts of the National Electric Code, emphasizing the calculations used in the code so that students are prepared to successfully complete the journeyman electrician or electrical contractor's exams.

## ELEC - Electronics Technology

## ELEC 1000 - Basic Electricity/Electronics <br> 9.0-0.0-9.0 <br> Prerequisite: None

Students conduct a study of basic dc circuits, ac circuits, diode operation, and power supply construction. The course emphasizes 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.

## ELEC 1010 - Electronic Devices/Digital Circuits <br> 9.0-0.0-9.0

Prerequisite: (1) ELEC 1000
Students conduct a study of semiconductor devices, semiconductor circuits, digital devices, and digital circuits. The course emphasizes theoretical application to actual circuit operation and assembly with use of normal bench test equipment, digital multimeter, oscilloscope, function generator, and dclac power supply.

## ELEC 1100 - IT Essentials PC Repair I <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course is the first level of an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities, students learn how to assemble and configure a computer, install operating systems and software, and perform basic troubleshooting of hardware problems. This course also covers binary and hexadecimal number systems and prepares students for the CompTIA A+ certification.

## ELEC 1110 - IT Essentials PC Repair II

4.5-0.0-4.5

Prerequisite: (1) ELEC 1100
This course is the second level of PC hardware and software operations with emphasis on advanced hands-on hardware and software repair. The course covers basic TCP/IP networking, wireless networking, and network troubleshooting. The topics include operating system installation and
configuration procedures and more advanced administrative tasks, such as user management and security. This course discusses devices, such as printers and scanners, and further prepares students for the CompTIA A+ certification.

## ELEC 1120 - Network Electronics

4.5-0.0-4.5

Prerequisite: (1) ELEC 1100 or INFO 2135
This is a hands-on course concentrating on the installation and maintenance of network hardware components. It covers routers, switches, hubs, and wireless hardware. Students explore other network hardware/software as well as network cabling and wireless characteristics and installation.

## ELEC 1200 - Cisco Network Fundamentals

9.0-0.0-9.0

Prerequisite: None
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students are able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

## ELEC 1210 - Cisco Routing

## 9.0-0.0-9.0

Prerequisite: (1) ELEC 1200
This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students are able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks

## ELEC 1300 - Radio Frequency Identification (RFID)

4.5-0.0-4.5

Prerequisite: None
This course provides students with the background knowledge needed to install and support the growing radio frequency identification market. Students learn RFID technology in order to plan, install, maintain, update, and optimize RFID systems. Students gain hands-on experience using RFID technology.

## ELEC 2220 - Cisco LAN Switching

9.0-0.0-9.0

Prerequisite: (1) ELEC 1210
This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students are able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students also develop the knowledge and skills needed to implement DHCP and DNS operations in a network.

## ELEC 2225 - CCNA Security

4.5-0.0-4.5

Prerequisite: (1) ELEC 2220 or instructor approval for work experience
CCNA Security is a hands-on, e-learning solution with an emphasis on practical experience to help students develop specialized security skills to advance their careers. The curriculum helps prepare students for the entry-level Cisco IOS Network Security (IINS) certification exam (640-553) leading to the Cisco CCNA Security certification.

## ELEC 2230 - Cisco Accessing the WAN <br> 9.0-0.0-9.0 <br> Prerequisite: (1) ELEC 2220

This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network.

## ELEC 2900 - Special Topics in Electronics

Variable
Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses in the Electronics Technology program.

## ELEC 2981 - Internship

Variable
Prerequisite: (1) Instructor approval
This internship provides students with the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. To develop an internship to meet their academic and career goals, interested
students must contact their faculty advisor or appropriate dean. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## ELTR - Electrical Technology

## ELTR 1200 - Basic Electricity

6.0-1.5-6.5

Prerequisite: None
This course introduces students to electrical theory, series and parallel circuits. Topics include alternating current, Ohm's Law, meters, grounding, preview of the National Electric Code (NEC), and troubleshooting. NOTE: Completion of ELTR 1200 with a grade of C or better is required to advance to next level class.

## ELTR 1210 - Residential Wiring

## 9.0-0.0-9.0

Prerequisite: (1) ELTR 1200 with a grade of $C$ or better
This course is designed to give students a basic knowledge of the electrical circuitry found in residential wiring. Students learn to apply the National Electrical Code standards.

## ELTR 1220 - Commercial Wiring <br> 9.0-0.0-9.0 <br> Prerequisite: (1) ELTR 1210 with grade of $C$ or better

This course covers the study of branch circuits, wiring methods, and applications of the National Electrical Code. Following the requirements of the NEC, students learn how to select the proper type and size of boxes, raceways, and conductors. Students also learn how to calculate box fill, conduit fill, and conduit bending.

## ELTR 1350 - Electrical Print Reading

3.0-0.0-3.0

Prerequisite: (1) ELTR 1220 with grade of C or better; or ELAP 2310
This course provides students with a general understanding of blueprint reading, including an overview of architectural drawings and mechanical drawings with an emphasis on electrical drawings.

## ELTR 2040 - Low-Voltage Applications <br> 6.5-0.0-6.5 <br> Prerequisite: (1) ELTR 1210 with a grade of $C$ or better

This course gives students a basic knowledge of the low-voltage components found in commercial buildings and dwellings including telephone, data networking, CATV, and lighting controls.

## ELTR 2240 - National Electrical Code

4.5-0.0-4.5

Prerequisite: (2) ELTR 1220 and ELTR 2331 both with grades of $C$ or better This course trains students to effectively use the National Electrical Code.

## ELTR 2331 - Electric Service and Installation <br> 4.5-0.0-4.5

Prerequisite: (1) ELTR 1220 with grade of $C$ or better
This course explains electric service, system transformers, and the principles of grounding and bonding electrical systems.

## ELTR 2900 - Special Topics in Electrical Technology

Variable
Prerequisite: None
This course permits instruction in special content areas not included in other courses in the Electrical Technology program.

## ELTR 2981 - Internship <br> 0.0 - variable - 8.0 <br> Prerequisite: None

The internship provides students with the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. To develop an internship to meet their academic and career goals, interested students must contact their program faculty. Based on Nebraska State Electrical Board guidelines, students must complete 400 hours of work related to the electrical trade. NOTE: Completion of ELTR 2981 with a grade of C or better is required to complete program.

## EMSP- Emergency Medical Services Program

## EMSP 1000 - Cardiopulmonary Resuscitation for Healthcare Providers

 1.0-0.0-1.0Prerequisite: None
This course will teach the participant how to recognize and respond to lifethreatening emergencies such as cardiac arrest, respiratory arrest, and foreignbody 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 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).

## EMSP 1005 - CPR Refresher

0.5-0.0-0.5

Prerequisite: (1) Current Healthcare Provider card
This course will review with the participant how to recognize and respond to lifethreatening emergencies such as cardiac arrest, respiratory arrest, and foreignbody airway obstruction (choking). The student will review when 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).

## EMSP 1010 - Heartsaver First Aid with CPR and AED

1.0-0.0-1.0

Prerequisite: None
This course teaches rescuers to effectively identify and treat adult emergencies in the critical first minutes of injury or illness until emergency medical service personnel arrive. The course provides basic training solutions for first aid, adult CPR, and use of an automated external defibrillator.

## EMSP 1020 - Emergency Medical Responder

4.0-4.0-5.5

Prerequisite: (1) EMSP 1000
This course is designed to instruct a student to the level of Emergency Medical Responder, who serves as a vital link in the chain of the health care 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.

## EMSP 1100 - Emergency Medical Technician

10.0-6.0-12.0

Prerequisite: None
This Emergency Medical Technician course provides an introduction to Emergency Medical Care. Modules of training will include medical-legal, roles and responsibilities of the EMT, documentation and communication, human body anatomy and physiology of the major human systems, 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. This course consists of 110 didactic hours, 55 hours of lab, and 15 hours of patient contact.

## EMSP 1105 - EMT Refresher

3.0-0.0-3.0

Prerequisite: None
This course reviews material previously learned by the participant. The intent of this course is to maintain a provider's competence in knowledge and skill performance. EMSP 1105 is designed to meet the hours to renew certification as well as for those who may need remediation to gain initial certification.

[^3]EMSP 1112 - Advanced EMT Part 2 of 2
10.0-6.0-12.0

Prerequisite: (1) EMSP 1110
Corequisite: EMSP 1113
This course is part 2 of a sequence of 2 in the Advanced EMT program that must be completed consecutively. This course provides an introduction to cardiac, neurological, endocrine, urological, and lymphatic emergencies. This course will provide the understanding of anatomy and physiology, signs and symptoms, and medical care of the above-mentioned medical emergencies. In conjunction with this course, the students will also be required to successfully complete ( C or above) EMSP 1113.

## EMSP 1113 - Advanced EMT Clinical/Field Component

0.0-10.5-3.5

Prerequisite: (1) EMSP 1110
Corequisite: EMSP 1112
The clinical/field component of the Advanced EMT (AEMT) program allows the student to synthesize cognitive psychomotor skills. The clinical/field corequisite integrates and reinforces the didactic and skills laboratory component of the AEMT 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. This course must be taken concurrently with EMSP 1112.

## EMSP 1120 - Paramedic Part 1 of 4

10.0-6.0-12.0

Prerequisite: None
Corequisite: EMSP 1440
The Paramedic Part 1 of 4 course is the first in a sequence of four courses that provides an introduction to emergency medical care. The modules in the first session provide 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. NOTE: All paramedic courses must be taken consecutively, completed with a C or above, and taken concurrently with their respective corequisite clinical/field component in order to sit for the Paramedic certification exam.

## EMSP 1122 - Paramedic Part 2 of 4

10.0-6.0-12.0

Prerequisite: (1) EMSP 1120
Corequisite: EMSP 1123
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. NOTE: All paramedic courses must be taken consecutively, completed with a C or above, and taken concurrently with their respective corequisite clinical/field component in order to sit for the Paramedic certification exam.

## EMSP 1123 - Paramedic Clinical/Field Component Part 1 of 3

0.0-11.0-3.5

Prerequisite: (1) EMSP 1120
Corequisite: EMSP 1122
The clinical/field component of the paramedic program allows the student to synthesize cognitive and psychomotor skills. As the clinical/field corequisite of EMSP 1122 Paramedic Part 2 of 4 this course 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. This course must be taken concurrently with EMSP 1122.

## EMSP 1124 - Paramedic Part 3 of 4

10.0-6.0-12.0

Prerequisite: (3) EMSP 1120; EMSP 1122; and EMSP 1123
Corequisite: EMSP 1125
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, signs and symptoms, and medical care of the above-mentioned emergencies. NOTE: All paramedic courses must be taken consecutively, completed with a C or above, and taken concurrently with their respective co-requisite clinical/field component in order to sit for the Paramedic certification exam.

## EMSP 1125 - Paramedic Clinical/Field Part 2 of 3

0.0-11.0-3.5

Prerequisite: (2) EMSP 1122 and EMSP 1123
Corequisite: EMSP 1124
The clinical/field component of the paramedic program allows the student to synthesize cognitive and psychomotor skills. This course EMSP 1125 is the clinical/field corequisite of EMSP 1124 that integrates and reinforces the didactic and skills laboratory component of the paramedic curriculum. The student will follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

## EMSP 1126 - Paramedic Part 4 of 4 <br> \section*{10.0-6.1-12.0}

Prerequisite: (2) EMSP 1124 and EMSP 1125
Corequisite: EMSP 1127
This course provides an introduction to ambulance operations, rescue operations, and extrication, mass casualty incidences, and crime scene awareness. NOTE: All paramedic courses must be taken consecutively, completed with a C or above, and taken concurrently with their respective co-requisite clinical/field component in order to sit for the Paramedic certification exam.

## EMSP 1127 - Paramedic Clinical/Field Part 3 of 3

0.0-11.0-3.5

Prerequisite: (2) EMSP 1124 and EMSP 1125
Corequisite: EMSP 1126
The clinical/field component of the paramedic program allows the student to synthesize cognitive and psychomotor skills. This course EMSP 1127 is the clinical/field corequisite of EMSP 1126 that 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.

## EMSP 1128 - Extended Paramedic Clinical/Field Rotation 0.0-6.0-2.0 <br> Prerequisite: (1) EMSP 1127

This additional clinical/field component of the paramedic program allows the student to develop a level of mastery in cognitive and psychomotor skills. This course EMSP 1128 is the elective clinical/field course that 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 that will be logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors. This course may be taken upon successful completion of EMSP 1127 as an additional elective for the student who has otherwise not been able to complete the Department of Transportation clinical/field requirements in EMSP 1127. EMSP 1128 is not necessary for degree completion.

## EMSP 1129 - Advanced Provider Refresher

4.5-0.0-4.5

Prerequisite: (1) Completion of an Emergency Medical Technician, Advanced EMT or Paramedic course or certification at state or national registry level.
This course reviews material previously learned by the participant. The intent of this course is to maintain a provider's competence in knowledge and skill performance. EMSP 1129 is designed to meet the hours to renew certification as well as for those who may need remediation to gain certification. The EMT may attend EMSP 1120 to fulfill the EMT renewal requirements and receive 24 additional hours of continuing education. EMSP 1129 meets the standards of the National Registry of Emergency Medical Technician Refresher requirements.

## EMSP 1130 - Emergency Medical Services Instructor

## 6.0-0.0-6.0

Prerequisite: (2) National Registered EMS Provider and Healthcare Provider Instructor
This course is designed for the EMS Provider to become an educator who understands how the adult student learns, and to provide learning opportunities that support their intellectual, professional, and personal development.

## EMSP 1131 - Critical Care Paramedic <br> 6.5-0.0-6.5

Prerequisite: (1) Current certification as a paramedic
This course is designed to give the paramedic the increased knowledge and skills to manage the critically injured/ill patient while being transported from one healthcare facility to another by critical care transport services.

## EMSP 1400 - Advanced Medical Life Support

2.0-0.0-2.0

Prerequisite: (1) Complete Advanced Medical Life Support pretest
Advanced Medical Life Support 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.

## EMSP 1410 - Pre-Hospital Trauma Life Support <br> 2.0-0.0-2.0

Prerequisite: None
The Pre-Hospital Trauma Life Support 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. New combinations and applications of existing skills and knowledge are being used to better the patient's chances at surviving traumatic events.

## EMSP 1420 - Advanced Cardiac Life Support

## 2.0-0.0-2.0

Prerequisite: (3) EMSP 1000; advanced healthcare provider; and instructor approval
This course will teach the participant how to recognize and respond to lifethreatening emergencies such as cardiac arrest, respiratory arrest, stroke, and hypothermic adult patient. 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).

## EMSP 1421 - Advanced Cardiac Life Support (ACLS) Renewal

 1.0-0.0-1.0Prerequisite: (4) EMSP 1000; must be advanced healthcare provider; instructor approval; and current ACLS provider card
This course will review with the participant how to recognize and respond to lifethreatening emergencies, such as cardiac arrest, respiratory arrest, stroke, and the hypothermic adult patient. The student will review rhythm recognition and how to use the heart monitor. The participant 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).

## EMSP 1430 - Pediatric Advanced Life Support (PALS) <br> 2.0-0.0-2.0

Prerequisite: (3) EMSP 1000; must be an advanced healthcare provider; and instructor approval
This course will review with the participant how to recognize and respond to lifethreatening 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 review the signs and symptoms along with the management algorithm associated with pediatric life threatening rhythms. The advanced provider will review 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).

## EMSP 1431 - PALS Renewal

## 1.0-0.0-1.0

Prerequisite: (4) EMSP 1000; must be an advanced healthcare provider; instructor approval; current PALS provider card
This course will review with the participant how to recognize and respond to lifethreatening 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 review the signs and symptoms along with the management algorithm associated with pediatric life threatening rhythms. The advanced provider will review 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 (ED), and relief of foreign-body airway obstruction (FBAO).

## EMSP 1440 - Anatomy and Physiology for EMS

5.0-0.0-5.0

Prerequisite: None
This course is designed to give the EMS provider an understanding of AP and its correlation with pre-hospital emergency medicine.

## EMSP 1450 - Trauma First Response 1.0-0.0-1.0 <br> Prerequisite: None

This course prepares the student for the role of the first responder: to care for the trauma patient prior to the arrival of the EMS personnel. The curriculum includes airway control, breathing assistance, control of bleeding and shock, understanding closed and open head and spine injury, as well as a variety of other skills. Previous EMS training not required.

## EMSP 1460 - Tactical Combat Casualty Care

2.0-0.0-2.0

Prerequisite: (1) EMSP 1410
This is the Department of Defense Tactical Combat Casualty Care (TCCC/TC/3) course as taught to Combat Medics/Corpsmen. This course takes the materials to the civilian setting for those SWAT team members, hostage rescue teams, emergency services units, and special operations units who find themselves caring for casualties in any number of combat situations. The class consists of Introduction to TCCC, PreTest, Care Under Fire, Tactical Field Care, Tactical Evacuation Care, Lessons Learned and Updates.

## EMSP 1470 - EMS Safety Course

1.0-0.0-1.0

Prerequisite: None
This course will identify and address the safety issues facing today's EMS providers and create a culture of safety within the EMS profession and the agencies that provide emergency medical care.

## EMSP 2900 - Selected Topics in Emergency Medical Services Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses in the EMSP program.

## ENGL - English

## ENGL 0950 - Reading and Responding <br> 4.5-0.0-4.5 <br> Prerequisite: (1) Assessment testing

Students explore strategies for reading, writing, and discussion including analyzing, questioning, summarizing, and responding to various texts. Students use the writing process to compose logical, complete summaries and responses.

## ENGL 0960 - Fundamentals of College Writing

## 6.0-0.0-6.0

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-B, ©

4.5-0.0-4.5

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or collegelevel 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. This is a level I class.

## ENGL 1020 - English Composition II-B, © <br> 4.5-0.0-4.5

Prerequisite: (1) ENGL 1010 or ENGL 1220 or ENGL 1230
Students continue to develop writing and critical thinking skills learned in level-1 English course by integrating outside research into their own writing. Students research, analyze, and organize primary and secondary sources of information and demonstrate their critical thinking through different types of thesis-driven writing assignments, including persuasive/argumentative.

## ENGL 1210 - Applied Communications

## 4.5-0.0-4.5

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or collegelevel 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, both verbally and nonverbally. This is a level I class.

## ENGL 1220 - Technical Writing $-\nexists$

4.5-0.0-4.5

Prerequisite: (2) 1000-level writing assessment test score or ENGL 0960; and 1000-level reading assessment test score or RDLS 0100
Students develop rhetorical knowledge; practice critical reading, thinking, and writing; and use a writing process to draft, revise, and edit technical documents.

## ENGL 1230 - Business Writing - -

4.5-0.0-4.5

Prerequisite: (2) 1000-level writing assessment test score or ENGL 0960; and 1000-level reading assessment test score or RDLS 0100
Students develop rhetorical knowledge; practice critical reading, thinking, and writing; and use a writing process to draft, revise, and edit workplace documents.

## ENGL 1240 - Oral and Written Reports $-\mathcal{O}$

4.5-0.0-4.5

Prerequisite: (1) ENGL 1010 or ENGL 1220 or ENGL 1230
Students continue to develop writing and critical thinking skills learned in ENGL 1010, 1220, or 1230 by integrating outside research into their own writing. Students research, analyze, and organize primary and secondary sources of information and demonstrate their critical thinking through oral and written technical and workplace reports.

ENGL 1310 - Creative Writing
4.5-0.0-4.5

Prerequisite: (1) ENGL 1010, ENGL 1220, or ENGL 1230
Students write fiction, poetry, drama, and other literary forms.

## ENGL 1320 - Introduction to Publication

4.5-0.0-4.5

Prerequisite: (1) ENGL 1010 or ENGL 1220
To introduce students to processes and resources for professional publication of writing, this course 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 or other publication. 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. This course, along with various graphic arts courses, also prepares students to plan lay-out for various in-house business publications and publishing houses. (See certificate for Publication Writing and Design under the Design, Interactivity, and Media Arts program)

## ENGL 2210 - Grant Writing

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students explore the non-profit environment, recognize community/organizational needs, identify effective grant-writing practices, and use rhetorical knowledge as well as research and writing processes to create a proposal.

## ENGL 2450 - Introduction to Literature-B

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students explore the genres, elements, and themes of literature by critically reading, discussing, and responding in writing to a culturally diverse selection of works. Fiction, poetry, and drama are emphasized. Students learn to appreciate literature as essential to understanding self and society.

## ENGL 2460 - Introduction to Short Stories

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students examine the elements of the short story and the history of its development as they read examples of its best practitioners.

## ENGL 2470 - Introduction to Women's Literature <br> 4.5-0.0-4.5 <br> Prerequisite: (1) ENGL 1020 or ENGL 1240

This course introduces students to writings by and about women. Students 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 respond to these writings analytically, creatively, and personally.

## ENGL 2480 - Introduction to Drama Literature I

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020; ENGL 1240; or THEA 2010 with instructor approval
Students examine 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

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020; ENGL 1240; or THEA 2010 with instructor approval
Students examine the elements of drama, notable dramatic works, and the major dramatic genres from the 18th century through contemporary times. (Cross-listed as THEA 2481)

## ENGL 2490 - Introduction to Latin American Literature

4.5-0.0-4.5

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 course can be taken as an English or a Spanish course.

## ENGL 2510 - American Literature I-

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
This course studies American literature from 1600 to the Civil War through the themes, works, and writers of that period.

## ENGL 2520 - American Literature II

4.5-0.0-4.5

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

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students explore American literature, history, and culture through the contributions of a variety of minority voices. Students experience an assortment of genres: novels, short stories, drama, and poetry.

## ENGL 2610 - British Literature IB

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students survey literature from the Celtic period through the 19th century.

## ENGL 2620 - British Literature II

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
Students survey literature from the Neoclassic period through the Romantic revolt, Victorian literature, the influence of Irish and Scottish literature, and conclude with the literature of the 20th century.

## ENGL 2900 - Special Topics in Literature

4.5-0.0-4.5

Prerequisite: (1) ENGL 1020 or ENGL 1240
This course permits instruction in special content areas not included in other literature courses, depending upon interest. Past topics include dramatic literature, detective fiction, African-American literature, and the writings of a particular author.

## ENGL 2901 - Special Topics in Writing <br> 4.5-0.0-4.5

Prerequisite: Varies based on topic of course; instructor approval also accepted
This course permits instruction in advanced writing not included in other English courses, depending on interest. Writing may include advanced composition, advanced poetry writing, or advanced fiction writing, among others.

## ENGR - Pre-Engineering

ENGR 1010 - Introduction to Engineering Design

## 4.5-0.0-4.5

Prerequisite: None
This course is an introduction to the engineering profession, engineering problem solving, and engineering design with an emphasis on current topics. Students learn using projects and group learning activities. It is recommended that students have high school math (trigonometry and pre-calculus) and high school science before taking this course. NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska-Lincoln's College of Engineering for direct transfer into the engineering program.

## ENGR 1020 - MATLAB Programming <br> 4.5-0.0-4.5

Prerequisite: (3) College-level reading, writing and math proficiency; MATH 1420; and fluency with 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. The course also includes easy creation of scientific and engineering graphics, which make the course particularly useful for engineering students. NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska-Lincoln's College of Engineering for direct transfer into the engineering program.

## ENGR 2010 - Elements of Electrical Engineering

## 4.5-0.0-4.5

Prerequisite: (3) College-level reading, writing, and math proficiency; MATH 2411; and PHYS 211C

This course is a sophomore engineering course that introduces students to the basic elements of electrical engineering. The course teaches 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. NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska-Lincoln's College of Engineering for direct transfer into the engineering program.

## ENGR 2020 - Engineering Statics <br> <br> 4.5-0.0-4.5

 <br> <br> 4.5-0.0-4.5}Prerequisite: (3) College-level reading, writing, and math proficiency; MATH 2411; and PHYS 210C

This course is a sophomore engineering course that introduces students to the basic principles of statics. 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. NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska-Lincoln's College of Engineering for direct transfer into the engineering program.

## ENTR - Entrepreneurship

ENTR 1050 - Introduction to Entrepreneurship $\uparrow$, ©

## 4.5-0.0-4.5

Prerequisite: None
Students evaluate the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. Students understand the role of entrepreneurial business in the United States and the impact on national and global economy. Students prepare a realistic foundational business plan appropriate to the launch of a small business.

## ENTR 2040 - Entrepreneurship Feasibility Study $\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: None
Students assess the viability of a new venture business idea to determine if the concept is feasible for business start-up and long-term growth based on strengths and skills and personal, professional, and financial goals. Students identify and analyze through basic research the present climate for their business idea by completing an industry, target market, and competitive analysis. Students 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-

4.5-0.0-4.5

Prerequisite: None
Students gain insights essential for marketing their entrepreneurial venture utilizing innovative and financially responsible marketing strategies. Students develop an understanding of traditional and non-traditional entrepreneurial marketing strategies and prepare marketing strategies with associated tactics to launch and sustain an entrepreneurial venture.

## ENTR 2060 - Legal Issues for the Entrepreneur $\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
Students explore legal issues related to business entities, including sole proprietorship, general partnerships, limited partnerships, and corporations. Students review contract law, articles of incorporations and the filing process, intellectual property, 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- 0

4.5-0.0-4.5

Prerequisite: INFO 1001 is recommended
This is a comprehensive course covering financial situations for business. Financial topics include employee benefits, retirement planning, creation of financial statements, and learning how to work with an accounting professional. Other topics include income tax, sales and use tax, payroll tax, and unemployment tax.

## ENTR 2090 - Entrepreneurship Business Plan-B

4.5-0.0-4.5

Prerequisite: (2) ENTR 1050 and ENTR 1060; or ENTR 1050 and ENTR 2040. INFO 1001 is recommended.

Students evaluate business concepts and write a sound business plan. Students assess the strengths and weaknesses of a business concept; collect, analyze, and organize market research data into a marketing plan; and prepare the final projections for their business concept. Students identify and evaluate various resources available for funding small businesses.

## ENTR 2700 - Global Issues in Entrepreneurship

## 4.5-0.0-4.5

Prerequisite: None
This course introduces a range of global issues to international entrepreneurs, business professionals, and travelers. Topics relate to international entrepreneurship and new ventures, the rise of emerging markets, new business opportunities, cross-cultural management, exporting, and global entrepreneurship strategies. The course presents the principles of global entrepreneurship and explores examples of entrepreneurial strategies successfully implemented in different continents. Students examine current factors and trends influencing the global business environment and evaluate potential application of entrepreneurship strategies to international markets worldwide.

## ENTR 2900 - Special Topics in Entrepreneurship <br> 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: (2) Completion of at least 24.0 credit hours of the program's major requirements and instructor approval
This internship is an advanced course. It requires that students have completed at least 9.0 credit hours in entrepreneurship at MCC. Students apply knowledge and skills learned in Introduction to Entrepreneurship and other courses completed in the Entrepreneurship program to assist real small business owners or nonprofit organizations with a working project. Students individually record the tasks performed in a notebook reviewed periodically by the respective owner and faculty sponsor to assure that appropriate competencies are developed and reinforced. Students make final presentations summarizing project results and recommendations. Based on state guidelines, students must complete 40 hours of work for each credit hour. NOTE: Internship hours are arranged so as to award 1.5 to 4.5 credit hours for successful completion.

## ESLX - English as a Second Language

## ESLX 0811 - Academic Listening and Speaking 1

6.0-0.0-6.0

Prerequisite: (1) Within two years prior to beginning the course, MCC placement test
This high-beginning-level course provides instruction and practice in the listening comprehension and speaking of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0812 - Academic Listening and Speaking 2

6.0-0.0-6.0

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0811 with a grade of P; or MCC placement test
This low-intermediate-level course provides instruction and practice in the listening comprehension and speaking of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0813 - Academic Listening and Speaking 3

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0812 with a grade of P; or MCC placement test

This intermediate-level course provides instruction and practice in the listening comprehension and speaking of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0814 - Academic Listening and Speaking 4

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0813 with a grade of P; or MCC placement test
This high-intermediate-level course provides instruction and practice in the listening comprehension and speaking of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0815 - Academic Listening and Speaking 5

## 6.0-0.0-6.0

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0814 with a grade of P; or MCC placement test
This advanced-level course provides instruction and practice in the listening comprehension and speaking of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0823 - Grammar 1

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0832 with a grade of P; or MCC placement test
This intermediate-level course is the first of a two-course ESL grammar module that provides explicit instruction and practice to increase students' awareness of standard grammatical forms and uses and to improve grammatical accuracy in speaking and writing.

## ESLX 0824 - Grammar 2

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0823 with a grade of P; or MCC placement test
This intermediate-level course is the second of a two-course ESL grammar module that provides explicit instruction and practice to increase students' awareness of standard grammatical forms and uses and to improve grammatical accuracy in speaking and writing.

## ESLX 0831 - Academic Reading and Writing 1

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, MCC placement test
Corequisite: RDLS 0096
This high-beginning-level course provides instruction and practice in the reading and writing of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0832 - Academic Reading and Writing 2

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0831 with a grade of P; or MCC placement test
Corequisite: RDLS 0097

This low-intermediate-level course provides instruction and practice in the reading and writing of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0833 - Academic Reading and Writing 3

## 6.0-0.0-6.0

Prerequisite: (1) Within two years prior to beginning the course, successful completion of ESLX 0832 with a grade of P; or MCC placement test

This intermediate-level course provides instruction and practice in the reading and writing of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0834 - Academic Reading and Writing 4

6.0-0.0-6.0

Prerequisite: (2) Within two years prior to beginning the course, successful completion of ESLX 0823 and ESLX 0833 with a grade of P; or MCC placement test
This high-intermediate-level course provides instruction and practice in the reading and writing of academic English and the development of academic vocabulary and critical-thinking skills.

## ESLX 0835 - Academic Reading and Writing 5 <br> 6.0-0.0-6.0

Prerequisite: (2) Within two years prior to beginning the course, successful completion of ESLX 0824 and ESLX 0834 with a grade of P; or MCC placement test

This advanced ESL course provides instruction and practice in the reading and writing of academic English and the development of academic vocabulary and critical thinking skills.

## ESLX 0843 - American English Pronunciation

3.0-0.0-3.0

Prerequisite: (2) Within two years prior to beginning the course, successful completion of ESLX 0812 and ESLX 0832 with a grade of P; or MCC placement test; or department approval
Pronunciation is an important element of effective communication. Non-native speakers of English often struggle with intelligibility, low confidence in speaking, and distracting accent features that can interfere with the ability to fully participate in their academic, professional, and social lives. Assisted by computer technology and the instructor, students in this course learn to identify and correct their pronunciation challenges to improve comprehensibility. Topics include the basics of pronunciation, vowels and consonants, speech rhythm, and intonation and stress patterns.

## ESLX 0900 - Special Topics for ESL Students

Variable
Prerequisite: (1) Instructor approval
This course provides ESL students with information and experiences that would enhance their learning of English and United States culture.

## ESLX 1000 - Medical English for ESL Healthcare Professionals

 4.5-0.0-4.5Prerequisite: (4) Certificate or diploma in healthcare-related field, or enrollment in courses leading to a certificate or diploma in a healthcare-related field; ESLX
0815, ESLX 0835, and advisor recommendation; or assessment testing in lieu of ESLX courses
This course prepares students to communicate in English in academic and professional environments in the healthcare fields. The focus of the course is language; the context is healthcare delivery in North America. Students read, write, speak, and listen in order to build a comprehensive repertoire of linguistic and cultural knowledge within the context of their health careers.

## FINA - Finance

FINA 1000 - Financial Literacy
4.5-0.0-4.5

Prerequisite: None
This course reviews the most critical financial literacy concepts needed by consumers in today's marketplace including issues specific to income, taxes, purchasing power, financial planning, banking, risk management, buying decisions, credit management, savings, and investment.

FINA 1100 - Principles of Property and Casualty Insurance
4.5-0.0-4.5

Prerequisite: None
This course is an introduction to the field of property and casualty insurance and is registered with the Nebraska Department of Insurance as satisfying prelicensing standards. The needs of individuals or organizations for various categories of protection are discussed and the course covers fire, accident, theft, property damage, and liability insurance, as well as the legal environment of insurance products. The course also introduces the basic concepts of product design, underwriting, pricing, marketing, and claim administration. NOTE: Lab fee covers course completion and documentation fees required by Nebraska Department of Insurance. Students are required to schedule their own licensure exams and satisfy other licensing requirements. (Cross-listed as INSU 1100)

FINA 1200 - Wealth-Building Fundamentals and Personal Finance $-\forall$
4.5-0.0-4.5

Prerequisite: None
This course gives students an understanding and practical application of the theories and concepts of how to analyze and direct one's financial affairs and that of their family.

FINA 1311 - Introduction to Financial Services Industry $-B$
4.5-0.0-4.5

Prerequisite: None
This course covers the fundamental functions of financial institutions. Topics include money, financial markets, financial institutions, the deposit and payment functions, the Federal Reserve System, and other regulatory functions.

FINA 1320 - Financial Calculator Applications $-\frac{B}{}$
1.0-0.0-1.0

Prerequisite: None
This course teaches the skills necessary to utilize a financial calculator.
Applications include time value concepts, bond value calculations, statistical applications, interest rate computations, profit margin determinations, and breakeven analysis.

## FINA 2100 - Introduction to Investments - -

4.5-0.0-4.5

Prerequisite: None
This course presents an introductory review of investment concepts and theory, including analysis of individual investments (e.g., stocks, bonds, mutual funds), security markets, and portfolio management.

## FINA 2200 - Investments -3

4.5-0.0-4.5

Prerequisite: None
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 investment environment by examining the role and scope of various investment vehicles including, common stock, fixed-income securities, derivative securities, and mutual funds. NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.
FINA 2206 - Fundamentals of Financial Planning I
4.5-0.0-4.5

Prerequisite: None
This course is the first of two courses examining the fundamentals of financial planning. Students examine the principles of financial planning (e.g., steps in the financial planning process) and tools and techniques used in the planning process as well as explore careers associated with financial planning.

## FINA 2207 - Fundamentals of Financial Planning II

4.5-0.0-4.5

Prerequisite: (1) FINA 2206
This course is the second of two courses examining the fundamentals of financial planning. Students explore the best methods for establishing client relationships, developing and evaluating a comprehensive financial plan, and utilizing criticalthinking skills relative to analytical concepts, ethics, regulations, and laws.

## FINA 2209 - Risk Management and Insurance•3

4.5-0.0-4.5

Prerequisite: None
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). NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.

## FINA 2210 - Financial Planning Principles $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
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 the financial planning process, including concepts related to the accumulation, preservation, and transference of wealth. NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.

## FINA 2215 - Asset Management

4.5-0.0-4.5

Prerequisite: None
This course is one of the electives provided for those seeking certification as an Employee Benefits Specialist (CEBS). The course introduces concepts, theories, and laws affecting the management of financial assets. It examines examples supplied by professionals in employee benefits.

## FINA 2220 - Asset and Liability Management for Financial Institutions

 4.5-0.0-4.5Prerequisite: (1) FINA 1311
This course introduces students 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-色

4.5-0.0-4.5

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, divided policy, convertible bonds, warrants, and options - all areas primarily oriented toward corporate financial management. NOTE: It is strongly recommended that ECON 1100 and FINA 2230 be taken late in the program of study.

## FINA 2240 - Financial Statement Analysis $-\mathcal{B}$

4.5-0.0-4.5

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 $\checkmark$ B

4.5-0.0-4.5

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), and portfolio management and control (assessing risk).

## FINA 2310 - Income Tax Planning - <br> 4.5-0.0-4.5

Prerequisite: (2) FINA 2200 and FINA 2210; or instructor approval
This course acquaints students with tax planning strategies as they relate to investment goals. It emphasizes discretionary income and net worth. Students learn to evaluate specific investment decisions based on current and relevant tax implications. NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.

## FINA 2315 - Retirement Plans: Basic Features

4.5-0.0-4.5

Prerequisite: None
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 and participant-directed investing, investment education, and distribution planning are also explored.

FINA 2316 - Defined Benefits
4.5-0.0-4.5

Prerequisite: None
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. The course gives special emphasis to the funding constraints of defined benefit 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. It also covers an examination of newer hybrid plan structures, early retirement incentive programs, and executive retirement arrangements.

## FINA 2320 - Retirement Planning and Employee Benefits $-\mathcal{B}$

4.5-0.0-4.5

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 and residence concerns, guardianships, conservatorships, durable powers of attorney, and living trusts.
The course reviews employee benefits as they relate to the retirement planning process. NOTE: Lab fee covers assessment curriculum required by CFP boardcertified courses.

## FINA 2321 - Compensation Concepts and Principles <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course is a required course for those seeking certification as an employee benefit specialist (CEBS). It provides 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. Topics 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 4.5-0.0-4.5

Prerequisite: None
The course examines human resources and compensation management, including human resource planning, wage determination, employee benefits, total compensation concepts, and noneconomic rewards. It also explores institutional and economic issues, such as seniority, management rights, and union security.

## FINA 2330 - Estate Planning - B

## 4.5-0.0-4.5

Prerequisite: (2) FINA 2200 and FINA 2210; 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. NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.

FINA 2400 - Financial Counseling - -
4.5-0.0-4.5

Prerequisite: None
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 $\smile \bigcirc$
4.5-0.0-4.5

Prerequisite: None
This course reviews the most critical consumer credit issues, including consumer rights, secured and unsecured debt, credit card debt, student loan debt, debt collection, foreclosures and repossessions, evictions, credit restructuring, and bankruptcy-related issues.

FINA 2700 - International Finance - B
4.5-0.0-4.5

Prerequisite: None
This course introduces analysis of international finance, providing a conceptual framework within which the unique financial decisions of the multinational firm can be analyzed. Students gain 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
Prerequisite: None
This course permits instruction in special content areas that are not appropriately treated in other finance courses.

## FINA 2940 - Financial Plan Development and Case Analysis $-\nrightarrow$

## 4.5-0.0-4.5

Prerequisite: (5) FINA 2200; FINA 2210; FINA 2310; FINA 2320; FINA 2330; or instructor approval
This course serves as the capstone course in the Financial Planning program. This case-based class provides students with an opportunity to demonstrate competencies in financial planning and insurance principles, income tax planning, retirement planning, and estate planning. NOTE: Lab fee covers assessment curriculum required by CFP board-certified courses.

## FINA 2981 - Internship in Finance

 VariablePrerequisite: (2) MCC completion of at least 24.0 credit hours of the program's major requirements; instructor approval
This internship is an advanced course taken in the second year of study. This course provides opportunities for practical application of concepts and techniques learned in various finance courses. The work setting is a public, private, or nonprofit organization appropriate to students' educational and career goals. Students observe and, with supervision, perform professional tasks consistent with the career. Students document progress and receive evaluation. Based on state guidelines, students must complete 40 hours of work for each credit hour. NOTE: Internship hours are arranged so as to award 3.0 to 4.5 credit hours for successful completion.

## FIST - Fire Science Technology

## FIST 1000 - Principles of Emergency Services

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides an overview of fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; and life safety initiatives. (Formerly Introduction to Fire Protection Principles)

## FIST 1020 - Fire Behavior and Combustion

## 4.0-0.0-4.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course explores the theories and fundamentals of how and why fires start, spread, and are controlled. Topics include fundamental laws of chemistry, states of matter, gas laws, chemical bonding, and thermodynamics with applications to various industrial processes. (Formerly Chemistry and Dynamics of Fire)

## FIST 1030 - Hazardous Materials Chemistry

## 3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides basic chemistry relating to the categories of hazardous materials, including problems of recognition, reactivity, and health encountered by firefighters. NOTE: Upon successful completion of this course, students are able to apply for certification as a Technician Level Hazardous Material Responder.

## FIST 1040 - Principles of Property and Casualty Insurance $-\nrightarrow$

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
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, liability insurance, and the legal environment of insurance products. Students are also introduced to the basic concepts of product design, underwriting, pricing, marketing, and claim administration.

## FIST 1050 - Building Construction for Fire Protection

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides a basic understanding of how the construction type, alternative design, and materials influence a building's reaction to fire. This course provides recognition of relevant information about a building before a fire, as well as fire ground 'reading' of the building that provides the ability to assess building stability and resistance to fire and determine likely paths of fire extension. Students become familiar with the materials and types of construction used for the various parts of buildings in this class. This course covers 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. This course teaches building construction as it relates to the firefighter and life safety. (Formerly Building Construction Related to Fire Science)

## FIST 1060-Occupational Safety and Health for Emergency Services

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations. (Formerly Fire Science Professional: Health and Welfare)

## FIST 1070 - Fire Protection Systems - ©

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection, and portable fire extinguishers.

## FIST 1080 - Fire Protection Hydraulics and Water Supply

## 4.0-0.0-4.0

Prerequisite: (1) Acceptance into the Fire Science Technology 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. (Formerly Hydraulics and Water Supply)

## FIST 1090 - Firefighter I

7.0-8.0-10.0

Prerequisite: (1) Medical screening compliant with NFPA 1582
Corequisite: FIST 2070
This course includes the information and skills to perform basic firefighting functions on the fire ground. Upon completion, students can take the Nebraska State Firefighter I Certification Test. This course prepares students to meet the requirements of Firefighter I per NFPA 1001 Standard for Firefighter Professional Qualifications and Hazardous Materials Awareness per NFPA 472 Standard for Responders to Hazardous Materials Incidents.

## FIST 1480 - Physical Training for the Firefighter/ EMS Professional

## 3.5-0.0-3.5

Prerequisite: None
The job of a firefighter is one of the most physically demanding jobs in North America. It requires high levels of cardiopulmonary endurance, muscular strength and muscular endurance. Physical fitness is the ability to perform physical activities, such as job tasks, with enough reserve for emergency situations dealing with multiple variables. This course prepares the firefighter and emergency management services candidates with specific physical fitness training to prepare them for the Candidate Physical Ability Test.

## FIST 2000 - Incident Command System

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides an introduction to the basic principles of the Incident Command System within the National Incident Management System (NIMS) compliant framework. The course covers the Department of Homeland Security Incident Command courses 100, 200, and 700. These are the minimum Federa ICS requirements for first responders within the United States. In addition to the course reading material and lecture, the course relies heavily on a final group activity and an understanding of inter-agency dynamics. Personnel accountability, safety at the scene, planning for the continuity of operations, and logistical requirements for incidents of all risks and sizes are only a few of the major components that are covered.

## FIST 2010 - Fire Investigation I <br> 3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides students with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes. (Formerly Incendiary Fire Analysis and Investigation)

## FIST 2011 - Fire Investigation II

3.0-0.0-3.0

Prerequisite: (2) FIST 2010; and acceptance into the Fire Science Technology program
This course is intended to provide the student with advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.

## FIST 2020 - Fire Prevention, Inspection and Codes $\checkmark$ ©

## 4.0-0.0-4.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course is an examination and evaluation of the techniques, procedures, programs, and agencies involved with fire prevention. It gives consideration to related governmental inspection and education procedures. (Formerly Fire Prevention, Building Inspection, and Codes)

## FIST 2030 - Legal Aspects of Emergency Services

## 3.0-0.0-3.0

Prerequisite: (1) Acceptance into Fire Science Technology program
This course is an introductory course that addresses the federal, state, and local laws that regulate emergency services and includes a review of national standards, regulations, and consensus standards.

## FIST 2040 - Principles of Fire \& Emergency Services Safety \& Survival

 3.0-0.0-3.0Prerequisite: (1) Acceptance into Fire Science Technology program
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.

## FIST 2050 - Introduction to Fire and Emergency Services Administration $-B$

## 3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course introduces students to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

## FIST 2060 - Strategy and Tactics

4.0-0.0-4.0

Prerequisite: (1) Acceptance into the Fire Science Technology 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.

## FIST 2070 - Hazardous Materials Operations

## 3.0-2.0-3.5

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course introduces the basic skills necessary to safely and effectively manage on-scene operations involving the uncontrolled release of dangerous chemicals. It focuses on those individuals in local jurisdictions who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. Those individuals respond in a defensive fashion without actually trying to stop the release. Upon successful completion, students are able to apply for certification at the Hazardous Materials Operations Level, as per OSHA regulation 29 CFR 1910.120, their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures.

## FIST 2071 - Hazwoper for the Industry

3.0-1.0-3.5

Prerequisite: (1) Acceptance into the Fire Science Technology program
This course provides students with entry-level education for students entering the remediation trade where hazardous and/or toxic materials are involved.

FIST 2080 - Hazardous Materials Technician
5.0-9.0-8.0

Prerequisite: (2) Successful completion of FIST 1090 and FIST 2070 with a grade of $C$ or better
This specialized training utilizes a modular format where a fire department may analyze its current level of competency and choose course modules that provide the skills needed by its hazardous materials team. Training includes offensive procedures for mitigation of hazardous materials spills, leaks, and exposures.
Topics include chemistry, detection devices, advanced recognition and identification, pre-incident planning, incident management, scene evaluation and termination, terrorism, toxicology, medical surveillance, emergency care, PPE usage and limitations, and decontamination.

## FIST 2090 - Firefighter II

4.0-4.0-5.5

Prerequisite: (4) FIST 1090; FIST 2070; acceptance into the Fire Science Technology program; and medical screening compliant with NFPA 1582
This course is the continuation of Firefighter I, and upon successful completion of the course individuals shall function on emergency scenes with general supervision. Firefighter II begins the entry-level education requirements for leading a team in emergency mitigation and/or hazardous materials response. Firefighter II is a national curriculum and certified by the state of Nebraska. The curriculum expands 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.

## FIST 2900 - Selected Topics in Fire Science

Variable
Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses in the Fire Science Technology program.

## FREN - French

FREN 1010 - Beginning French I-B

## 7.5-0.0-7.5

Prerequisite: None
FREN 1010 is the first of three sequential courses that teach the basic skills of listening, speaking, reading, and writing in French. Students build these skills by watching, listening, and practicing speaking after native speakers on video; learning vocabulary, verb forms, and grammatical structures of the language; discovering the francophone culture through reading and watching videos; and practicing what they have learned through online exercises and quizzes. FREN 1010 covers five units.

## FREN 1020 - Beginning French IIB

7.5-0.0-7.5

Prerequisite: (1) FREN 1010
This is the second of three sequential courses that teach the basic skills of listening, speaking, reading, and writing in French. Students build these skills by watching, listening, and practicing speaking after native speakers on video; learning vocabulary, verb forms, and grammatical structures of the language presented; discovering the francophone culture through reading and watching videos; and practicing what they have learned through online exercises and quizzes. FREN 1020 covers five units.

## FREN 2010 - Intermediate French l-B

4.5-0.0-4.5

Prerequisite: (1) FREN 1020
This is the third of three sequential courses that teach the basic skills of listening, speaking, reading, and writing in French. Students build these skills by watching, listening, and practicing speaking after native speakers on video; learning vocabulary, verb forms, and grammatical structures of the language; discovering the francophone culture through reading and watching videos; and practicing what they have learned through online exercises and quizzes. FREN 2010 covers five units.

FREN 2020 - Intermediate French II-
4.5-0.0-4.5

Prerequisite: (1) FREN 2010
This is the first of two courses that review and then continue to develop the skills of listening, speaking, reading, and writing in French. Students build these skills by watching, listening, and practicing speaking after native speakers on video; learning vocabulary, verb forms, and grammatical structures of the language; discovering the francophone culture through reading and watching videos; and practicing what they have learned through online exercises and quizzes.

## FREN 2030 - Intermediate French III-

4.5-0.0-4.5

Prerequisite: (1) FREN 2020
FREN 2030 is the second of two courses that review and then continue to develop the skills of listening, speaking, reading, and writing in French. Students build these skills by watching, listening, and practicing speaking after native speakers on video, learning vocabulary, verb forms, and grammatical structures of the language presented in the v-text (virtual textbook), discovering the francophone culture through reading and watching videos, and practicing what they have learned through Supersite online exercises and quizzes.

## FREN 2900 - Special Topics in French

Variable
Prerequisite: None
This course offers topics not normally addressed by other courses in French. Examples include advanced grammar, intensive conversation and pronunciation, and contemporary culture.

## GEOG - Geography

## GEOG 1010 - Fundamentals of Geography - © 4.5-0.0-4.5 <br> Prerequisite: None

This course provides students with an overview of the environmental and social concerns encompassed by the discipline of geography. It surveys essential concepts in both cultural, human, and physical geography, and students acquire basic skills in the use and interpretation of maps. College-level reading skills are recommended for success in this course. NOTE: Beneficial for all undergraduates, this course is particularly valuable for teachers and for those planning to teach geography or the social sciences.

## GEOG 1020 - World Regional Geography -0

## 4.5-0.0-4.5

Prerequisite: None
The course expands students' knowledge of the world beyond the borders of Nebraska. The course divides the earth into a manageable number of geographical areas (regions) and analyzes them in terms of their human and physical geographies. It gives particular attention to distinctions between the wealthy, technologically advanced regions of the earth and those areas that remain less developed. Students explore processes of globalization that increasingly link regions to one another. College-level reading skills are recommended for success in this course. (Formerly GEOG 2150)

## GEOG 1050 - Introduction to Human Geography ${ }^{*}$

## 4.5-0.0-4.5

Prerequisite: None
The course provides spatial and ecological perspectives on the human occupancy of the earth. It examines distinctive cultural landscapes 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. College-level reading skills are recommended for success in this course.

## GEOG 1150 - Introduction to Physical Geography - Weather and Climate $-\mathcal{B}$

 5.0-3.0-6.0Prerequisite: None
This lecture and lab course introduces the ways in which the complex interplay of solar radiation, temperature, moisture, atmospheric pressure, and wind produces the short-term atmospheric conditions called weather and the long-term atmospheric conditions called climate. It gives particular attention to the ways in which weather and climate influence human life and to evidence of climate changes, past and present. College-level reading skills are recommended for success in this course.

## GEOG 1160 - Introduction to Physical Geography - Landforms $-\notin$

5.0-3.0-6.0

Prerequisite: None
This lecture and lab course examines the physical processes that shape and reshape the face of the earth. The course introduces 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. It gives considerable attention to the fact that many of the processes that create or destroy landforms also constitute natural hazards with which human societies must contend. College-level reading skills are recommended for success in this course.

## GEOG 1210 - Introduction to Physical Geology

## 5.0-3.0-6.0

Prerequisite: None
This lecture and lab course is the study of the earth and the processes that shape it. Students learn about the materials and physical features of the earth, changes in those features, and the processes that bring them about. It studies the earth as a planet, as a changing body, and as humans' home. College-level reading skills are recommended for success in this course.

## GEOG 2900 - Special Topics in Geography

## Variable

Prerequisite: None
This course permits instruction in special content areas that are not included in other geography courses.

## GERM - German

## GERM 1010 - Elementary German I-

7.5-0.0-7.5

Prerequisite: None
This is the first of a two-course introductory sequence in which students begin to learn the fundamentals of German. It stresses comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary.

## GERM 1020 - Elementary German II-

## 7.5-0.0-7.5

Prerequisite: (1) GERM 1010 or its equivalent
Students continue focusing on the skills begun in GERM 1010. The course stresses comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary.

## GERM 2900 - Special Topics in German

Variable
Prerequisite: (1) Instructor approval
This course offers topics not normally addressed by other courses in the German curriculum. Examples include advanced grammar, intensive conversation and pronunciation, and contemporary culture.

## HCIA - Healthcare Information and Administration

HCIA 1010 - Healthcare Delivery Systems $\checkmark$ ©

## 4.5-0.0-4.5

Prerequisite: None
This course introduces students to the broad range of career options in the health information management (HIM) profession, the functions of a health information manager in the healthcare environment, and the resources used by HIM professionals. This course is an overview of the components of the healthcare delivery system in the United States, the organizations that provide healthcare, the external forces affecting healthcare organizations, the reimbursement methods used, and the professionals who provide the services. Students examine the organizational components of healthcare organizations: the governing board, the medical staff, and the administration.
HCIA 1020 - Healthcare Data and Electronic Health Records $-\mathcal{B}$
4.5-0.0-4.5

Prerequisite: None
Corequisite: HCIA 1010
In this course, students study the origin, uses, content, and format of healthcare data across the continuum of healthcare, including both paper and electronic health records (EHR); accreditation and regulatory requirements applicable to healthcare data; and methods of ensuring compliance with requirements: quality and integrity of healthcare data, forms, and screen design and management.

## HCIA 1030 - Healthcare Data Management and Use- -3

4.5-0.0-4.5

Prerequisite: (1) HCIA 1020
This course focuses on the methods to access and retrieve healthcare data and medical records. These methods include master patient index, record identification and filing systems, record retention, and disaster planning; electronic document management systems and health data registries (e.g., cancer registry); and voice recognition and management of medical transcription services, including productivity, quality monitoring, and budgeting.

HCIA 2010 - Healthcare Statistics - -
4.5-0.0-4.5

Prerequisite: (2) INFO 1001 and MATH 1310
The course includes the study of the methods/formulas for computing, preparing, and presenting statistical reports used in the delivery of healthcare services. Students utilize current software to learn and apply spreadsheet techniques and fundamentals of database creation and use.

## HCIA 2020 - Health Law, Privacy, and Ethics-色

4.5-0.0-4.5

Prerequisite: (1) HCIA 1010
Students study legal principles, laws, and regulations related to healthcare and health information; confidentiality, privacy, subpoenas of health information, and methods used to enhance the security of health information; legal terminology and procedures and court systems; and liability of healthcare providers, patient rights, healthcare compliance, and health information management ethics. Students apply concepts learned to simulated health information cases.

## HCIA 2030 - Performance Improvement - B

4.5-0.0-4.5

Prerequisite: (1) HCIA 2010
Corequisite: HCIA 2020
The course encompasses the investigation of peer review in healthcare and the components of quality management programs in healthcare organizations, including quality/performance improvement, utilization management, risk management, safety, and credentialing. Employee orientation and training is also included.

## HCIA 2421 - Clinical Coding l-B

4.5-0.0-4.5

Prerequisite: (2) BIOS 1310 or HIMS 1180; and HIMS 1310
Students gain knowledge of the International Classification of Diseases, Clinical Modification (ICD-9-CM and ICD-10-CM) systems, official coding guidelines, and application of coding principles to diagnostic statements found across the continuum of healthcare. Students explore utilization of coding resources and tools. Retro audit reviews give students an idea of how to verify codes for accuracy.

## HCIA 2431 - Clinical Coding II-B

4.5-0.0-4.5

Prerequisite: (1) HCIA 2421
Students gain knowledge of the Current Procedural Terminology (CPT)/Health Care Procedural Coding System (HCPCS), official coding guidelines, and assignment of codes to various clinical statements, scenarios, reports, and patient records. Students explore utilization of coding resources and tools. An understanding of corporate compliance is also covered.

## HCIA 2432 - Clinical Coding IIIB

4.5-0.0-4.5

Prerequisite: (1) HCIA 2431
Students gain a comprehensive foundation of inpatient hospital coding and inpatient classification systems for medical specialties. The course emphasizes ensuring accuracy of diagnostic related groups (DRG), and International Classification of Diseases, 10th Edition Procedural Classification System (ICD-10PCS). The course also includes an in depth examination of healthcare reimbursement methodologies and revenue cycle management including the charge master. Students apply coding principles using an encoder and grouper. Students also identify and gain an understanding of Recovery Audit Contractor (RAC) audits, and the Office of Inspector General (OIG) audits. Students are introduced to Systematized Nomenclature of Medicine--Clinical Terms (SNOMEDCT), Center for Medicare and Medicaid Services (CMS) reimbursement methodologies, case mix, interpreting explanation of benefits (EOB) and remittance advice.

## HCIA 2982 - HCIA Capstone ${ }^{\mathcal{B}}$ <br> 4.5-0.0-4.5

Prerequisite: (1) Instructor approval
Students discuss current issues and trends in the healthcare field which impact health information management practice, the professional rights and responsibilities of health information management professionals, career management strategies, and review and prepare for national registration exam. To enhance the review for the national registration exam, students utilize health information management software complimentary to the review topic. This course is for students near completion of the associate degree program in HCIA.

HCIA 2983 - HCIA Practicum -3
0.0-6.0-2.0

Prerequisite: (1) Instructor approval
Students apply knowledge learned in the Healthcare Information and Administration program to various health information management (HIM) functions at healthcare organizations under the guidance of HIM professionals. This course is for students near completion of the associate degree program in HCIA. Based on state requirements, students must complete 40 hours of work for each credit hour.

## HIMS - Health Information Management Systems

HIMS 1111 - Healthcare Careers $-\mathcal{\bullet}$, ©<br>4.5-0.0-4.5<br>Prerequisite: None

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. Current issues in healthcare are addressed in order to enrich students' 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 $B$, © <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course assists students in establishing a solid foundation of medical terminology and abbreviations and introduces prefixes, suffixes, and word roots used in the language of medicine. The course emphasizes medical vocabulary as it applies to the anatomy, physiology, and pathology of the human body. Students study the functioning of the body systems, clinical/surgical procedures, and therapies and examine normal, pathological, clinical, and laboratory
considerations in order to best prepare for entrance into the healthcare professions. The course also emphasizes correct spelling and pronunciation.

## HIMS 1130 - Medical Terminology II色, © <br> 4.5-0.0-4.5 <br> Prerequisite: (1) HIMS 1120

This course is a continuation of HIMS 1120. It presents additional body systems, specialty medical areas, clinical procedures, laboratory tests, medical terms, and abbreviations. Students study practical applications with case reports, operative and diagnostic tests, and laboratory and x-ray reports. The course also emphasizes correct spelling and pronunciation.

## HIMS 1150 - Introduction to Medical Law and Ethics $\smile$ • © <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course gives a foundation in the federal and state laws of the medical profession and ethical issues associated with working in a healthcare setting. It explores HIPAA regulations 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 technology occur. Students learn investigation of techniques to maintain office safety as well as the safety and confidentiality of patients and medical records.

## HIMS 1180 - Disease Processes - ©, ©

4.5-0.0-4.5

Prerequisite: (1) HIMS 1130
This course introduces the fundamentals of human disease processes. Students gain knowledge in the study of the nature and description of disease, disease etiology, signs and symptoms, diagnostic evaluation procedures, complications, treatment, management, prognosis, and prevention of disease. The course organizes the coverage of diseases by major body systems. It also explores bacteriology as related to health, immunology, and infectious diseases. Students apply the knowledge learned and use critical-thinking and problem-solving skills to address case studies and complete team activities.

## HIMS 1210 - Medical Office Communications - ©, ©

4.5-0.0-4.5

Prerequisite: (1) HIMS 1130
This course provides basic information and guidelines for style, grammar, and specific medical transcription mechanics. Topics include career role and responsibilities in medical office management and medical transcription, transcription tools and guidelines, medical records and reports, and correspondence and business documents. It emphasizes punctuation and
capitalization; numbers, figures, dosages, and medical abbreviations; editing, proofreading, and quality assurance; utilization of reference materials; and word forms.

## HIMS 1212 - Microsoft Word for Medical Office - , ©

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
This course explores the features of Microsoft Word to create, design, and produce professional documents commonly used in a medical setting. It emphasizes the basics in the use of the ribbon to the minute details of forms, fields, and customization tools. Students gain in-depth knowledge in the use of these features by completing a variety of projects related to their field of study. Students also study technologies used in a medical office or healthcare facility.

## HIMS 1310 - Introduction to Anatomy and Physiology $\bullet$, © 4.5-0.0-4.5

Prerequisite: (1) HIMS 1130
This course focuses on the human body as a living, functioning organism. It explores important concepts about human anatomy and physiology. Students learn how cells, tissues, organs, and body systems function together to carry on complex activities. The course emphasizes all major body systems, their interaction with other structures and systems, and their role in the human organism.

## HIMS 1410 - Introduction to Insurance $-\odot$, © <br> 3.0-0.0-3.0 <br> Prerequisite: (1) HIMS 1130

Students are introduced to the health insurance field, managed healthcare, and legal and regulatory issues, as well as reimbursement methodologies. Various types of private and governmental health, disability, and liability insurances are explored in detail while focusing on claim form instructions, billing and collection practices, and reimbursement guidelines, including the audit and appeals process.

## HIMS 2110 - Principles of Management in Healthcare- - , © <br> 4.5-0.0-4.5

Prerequisite: (1) HIMS 1110 or HIMS 1111 or HIMS 1115 or HCIA 1010
This course focuses on acquainting the healthcare practitioner with management and supervision concepts essential to 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 policies and procedures; compliance regulations; adaptation, motivation, and conflict management; and strategic management.

## HIMS 2155 - Fundamentals of Pharmacology ${ }^{\bullet}$ ©, ©

4.5-0.0-4.5

Prerequisite: (2) HCIA 1010 or HIMS 1111; and HIMS 1130
This course provides a basic understanding of pharmacological concepts, emphasizing routes of administration, basic pharmacokinetics, and the specific pharmacology of drugs commonly used in the healthcare field. Students become familiar with drug names, drug classifications, and drug schedules and categories. Other topics include drug actions and the rationale for treatment, side effects, and contraindications. Students review current healthcare topics relating to pharmacology and ethical issues. NOTE: HIMS 1110 and HIMS 1115 can be substituted for HIMS 1111.

## HIMS 2220 - Medical Transcription Iß

## 4.5-0.0-4.5

Prerequisite: (3) HIMS 1130; HIMS 1210; and HIMS 1212
This course provides fundamental instruction in transcribing medical reports from actual physician dictation using word processing software. Students prepare a variety of medical reports that are utilized in a medical office and acute care settings. This course emphasizes formatting and medical office writing styles, as well as introduces students to editing, proofreading, and speech recognition skills necessary with the changes in technology and the electronic health record (EHR).

## HIMS 2230 - Medical Transcription IIB

## 4.5-0.0-4.5

Prerequisite: (1) HIMS 2220
This course builds on the foundation provided in the beginning medical transcription course (HIMS 2220) and bridges the gap between the typically easy-to-understand dictations to the more difficult, often indistinct or ethnic dictation heard in a healthcare setting. Students entering the field as a medical transcriptionist develop proficiency in the use of editing and speech recognition technology and are prepared for their careers in private practices, clinics, hospital settings, or self-employed entrepreneurs.

## HIMS 2400 - Introduction to Coding and Billing $\cup$, ©

4.5-0.0-4.5

Prerequisite: (1) HIMS 1410
This course introduces students 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. Students gain a basic knowledge of the ICD-10-CM, ICD-9-CM, HCPCS, and CPT classification systems to code diagnoses, conditions, and procedures.

## HIMS 2420 - Coding and Billing I-B, © <br> \section*{4.5-0.0-4.5}

Prerequisite: (1) HIMS 2400
This course provides students with a comprehensive understanding of the International Classification of Disease (ICD-10-CM and ICD-9-CM) coding system. Students learn the guidelines and terminology for correctly coding diagnoses in a physician's office, hospital, home healthcare agency, or other healthcare facility. Challenging practice drills test students' coding skills in a variety of realistic healthcare settings using real-life patient health records.

## HIMS 2430 - Coding and Billing IIß, ©

4.5-0.0-4.5

Prerequisite: (1) HIMS 2420
This course provides in-depth coverage of procedural coding utilizing the HCPCS coding system composed of current procedure terminology and national level II codes: detailed application of the CPT classification system for inpatient and outpatient services. The course emphasizes evaluation and management and surgery codes, as well as the use of modifiers and global services. Students apply coding and billing principles through the use of case study exercises and patient records. Students examine prospective payment in ambulatory and outpatient services and explore the implications of coding.

## HIMS 2900 - Special Topics in Health Information Management Systems

 VariablePrerequisite: None
This course permits instruction in special content areas not included in other courses in the Health Information Management Systems program.

## HIMS 2910 - CPC Exam Preparation

8.0-0.0-8.0

Prerequisite: (1) Instructor approval
This review course is for coders who are interested in taking the American Academy of Professional Coders Certification (AAPC) examination. This course provides 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. Students receive a pass or fail grade. Upon completion of this course, a date is set for the student to take the five-hour and forty minute certified professional coder examination. NOTE: To maintain accreditation as a CPC, the AAPC requires completion of 36 continuing education units (CEUs) every two years. The CPC exam may be retaken yearly in lieu of submission of CEU credits for that year. A passing score must be obtained to fulfill the CEU requirement. All exams must be taken prior to the renewal date.

## HIMS 2920 - CPC-H Review

4.5-0.0-4.5

Prerequisite: (1) Instructor approval
This review course is for coders who are interested in taking the American Academy of Professional Coders (AAPC) Certification-Hospital examination (CPC-H). The course provides 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. Students receive a pass or fail grade. Upon completion of this course, a date is set for students to take the five-hour and forty minute examination. NOTE: To maintain accreditation as a CPC-H, the American Academy of Professional Coders requires completion of 36 continuing education units (CEUs) every two years. To maintain double core certification (CPC, CPC-H), the AAPC requires 48 CEU credits 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 must be taken prior to the renewal date. You must be a member in good standing with AAPC.

## HIMS 2980 - Medical Office Applications $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (1) Instructor approval
This capstone course provides the opportunity to develop medical office management skills through individual and collaborative learning experiences. This course integrates all of the competencies obtained throughout the program,
as well as provides lab activities in the navigation of an electronic health record and the importance of accuracy as related to continuity of care and reimbursement. NOTE: All classes in the chosen degree program must be completed prior to being granted instructor approval for this course.

## HIMS 2981 - Internship

0.0-12.0-4.0

Prerequisite: (1) Instructor approval
The internship places students in a working and learning environment to receive on-the-job training before graduation. To develop internships to meet academic and career goals, students must work with the faculty internship coordinator to secure a job in a related field. Students prepare a portfolio based on the successful completion of the HIMS program. NOTE: All classes in the chosen degree program must be completed prior to being granted instructor approval for this course.

## HIST - History

## HIST 1010 - United States History to 1877 -

## 4.5-0.0-4.5

Prerequisite: None
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 $\bullet$, ©

 4.5-0.0-4.5Prerequisite: None
This course is a survey of American history from the end of the Civil War to the present.

## HIST 1050 - Introduction to Black History ${ }^{-}$-

4.5-0.0-4.5

Prerequisite: None
This course is a survey of the history of black Americans from their origins in Africa to the present. It considers political, economic, social, and cultural factors as well as the interaction between African Americans and the larger society.

## HIST 1060 - The History of Black Women in America -3

4.5-0.0-4.5

Prerequisite: None
This course explores the history of black women in America. It covers black women's roles in the home, industry, and during world wars from the colonial period to present day. Topics include American social movements, race relations, ethnicity, sexuality, gender, medical issues, and age.

## HIST 1070 - Traditional and Modern China $-B$

## 4.5-0.0-4.5

Prerequisite: None
This course examines the historical, cultural, political, and economic aspects of China. The course 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 1080 - Traditional and Modern Japan-B

4.5-0.0-4.5

Prerequisite: None
This course examines the historical, cultural, political, and economic aspects of Japan. The course starts in the 1500s by studying the Tokugawa dynasty and its wealthy and powerful rulers and then examines the impact of Eastern and Western influences in Japan including World Wars I and II and the rebuilding and modernization of Japan. The course ends by exploring Japan's present role, influence, and effect on global nationalism.

## HIST 1110 - World Civilization from Prehistory to 1500 -

4.5-0.0-4.5

Prerequisite: None
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 - , ©
4.5-0.0-4.5

Prerequisite: None
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

4.5-0.0-4.5

Prerequisite: None
This course covers the domestic problems and world position of Europe during the past century and a half. It considers political, economic, social, cultural, and technological factors, particularly with regard to their effects on the United States.

## HIST 2200 - Latin American History $-\bigoplus$

4.5-0.0-4.5

Prerequisite: None
This course covers the history and culture of Latin America from ancient history to the present. It considers political, economic, social, and cultural factors as well as the interaction between Latin America and the larger society.

## HIST 2220 - U.S. and Global Military History $\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course is a survey of global military history that situates war strategies and tactics, starting from the founding days of America to the present. The course has a special emphasis on warfare in the 20th and 21st centuries. Its primary purpose is to provide students with a better understanding of the political, social, cultural, economic, and marshal aspects of global military history.

## HIST 2900 - Special Topics in History <br> Variable <br> Prerequisite: (1) Instructor approval

This course permits instruction in special content areas not included in other history courses.

## HITP - Health Information Technology

## HITP 1005 - Introduction to Electronic Health Records $\checkmark$ ,

4.5-0.0-4.5

Prerequisite: None
This course introduces the types of patient records and documentation issues associated with them. It covers filing systems and record storage circulation methods, including electronic health records. Students gain an understanding for indexes, registers, and health data collection. (Formerly Introduction to Record Keeping)
HITP 1010 - Introduction to Health Information Technology-0
4.5-0.0-4.5

Prerequisite: None
This class introduces students to basic concepts in health information technology. Topics such as the evolution of health information technology and the history of electronic health records are discussed. In addition, students are introduced to the field of informatics and basic computing concepts.
HITP 1115 - Electronic Health Records (EHR) Lab Experience $\smile$ © ©

## 4.5-0.0-4.5

Prerequisite: None
This course prepares students to use electronic records in a medical practice. It covers history, theory, and potential benefits of EHRs. Students explore EHR components, including prescriptions, exam notes, lab orders and results, scanned images, and others. The course covers privacy and security of health records in detail. (Formerly Using Electronic Health Records)

HITP 1145 - Healthcare Applications I- $\bigcirc$, ©
4.5-0.0-4.5

Prerequisite: None
This course prepares students to work in today's healthcare environment. Topics covered include an overview of healthcare in the United States, ethical and legal issues, and professionalism in the workplace.

HITP 1310 - Principles of Healthcare Management- $७$
4.5-0.0-4.5

Prerequisite: None

This course reviews principles of management, planning, and leadership and applies them to common situations that occur in the healthcare IT environment. It teaches effective communication skills and human relations skills and reinforces these skills through experiential learning.

## HITP 1415 - Workflow Redesign I- -

4.5-0.0-4.5

Prerequisite: None
This class introduces the fundamentals of health workflow process analysis as a necessary component of complete practice automation. It also discusses the concept of quality improvement in the healthcare setting.

## HITP 1510 - Working with EHR Systems $\checkmark$ ß

4.5-0.0-4.5

Prerequisite: None
In this laboratory class, students work with simulated electronic health record systems or real EHR systems with simulated data. As students play the role of practitioner using these systems, they learn what is happening under the hood. Students experience threats to security and learn to appreciate the need for standards, high levels of usability, and how errors can occur.

## HITP 1511 - Workflow Redesign IIß

4.5-0.0-4.5

Prerequisite: (1) HITP 1415
Students study workflow process redesign concepts in-depth. The course covers process validation and change management and presents concepts of health IT and practice workflow redesign as instruments of quality improvement. It also explores methods of establishing a culture that supports increased quality and safety. (Formerly Workflow Redesign)

## HITP 1512 - Usability and Health Information Systems $-\mathcal{B}$

4.5-0.0-4.5

## Prerequisite: None

This course introduces students to health IT standards, health-related data structures, software applications, and enterprise architecture in healthcare and public health organizations. Students also study rapid prototyping, user-centered design and evaluation, and usability.

## HITP 1615 - Install, Maintain, and Configure EHRs $\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course includes instruction in installation and maintenance of health IT systems, including testing prior to implementation. It discusses approaches to assessing, selecting, and configuring EHRs to the specific needs of end-users.

## HITP 1616 - Health Information Exchange -3

4.5-0.0-4.5

Prerequisite: None
This course presents an in-depth analysis of data mobility, including the hardware infrastructure, the Open Systems Interconnection model, standards, Internet protocol, federations and grids, the National Health Information Network, and other nationwide approaches.

## HITP 1701 - Training EHR/HIT Users- $\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: None
This course includes an overview of learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and assessment of training program effectiveness. (Formerly Training and Instructional Design)

## HITP 2040 - Info Systems in Healthcare -3

4.5-0.0-4.5

Prerequisite: (2) HCIA 1030 and INFO 1001
In this laboratory course, students examine and analyze health information technology applications. Students apply principles to usability of health IT systems, configure electronic health record systems, and examine the potential impact of system-facilitated errors. Students are introduced to the processes used for system acquisition and evaluation.

## HITP 2940 - Health IT Capstone

4.5-0.0-4.5

Prerequisite: (1) Instructor approval
This capstone course gives students the opportunity to integrate the skills and knowledge acquired throughout the HITP curriculum. Students develop, manage, and execute each stage of a health IT project.

HITP 2981 - Health IT Internship
0.0-13.5-4.5

Prerequisite: None
This internship places students in a working and learning environment to receive on-the-job training before graduation. Students prepare a portfolio based on the successful completion of the HITP program. Students must complete 40 hours of work for each credit hour.

## HLSM - Horticulture, Land Systems, and Management

## HLSM 1000 - Horticulture, Land Systems, and Management Orientation

 1.0-0.0-1.0Prerequisite: None
This course is an introduction to the Horticulture, Land Systems and Management programs (HLSM). This course should be taken during the first quarter of enrollment.

## HLSM 1010 - Introduction to Horticulture <br> 5.0-3.0-6.0

Prerequisite: (1) HLSM 1000
This course forms the basis for all the 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, and 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.

## HLSM 1020 - Introduction to Aquaponics <br> 2.0-3.0-3.0

Prerequisite: (1) HLSM 1010
This course introduces students to the methods and applications of raising fish together with plants in closed recirculating systems. Topics include aquaponics principles and system designs, nitrogen cycling and water quality, and fish and plant biology and health. Emphasis is on flood and drain culture of tilapia, vegetables, and herbs.

## HLSM 1030 - Introduction to Floral Design

2.0-3.0-3.0

Prerequisite: None
This course is an introduction to the art and mechanics of arranging fresh flowers for the home and events using modern techniques.

## HLSM 1100 - Perennials: Culture and Identification

## 2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
This course includes the study of perennials in the landscape. Emphasis is placed on culture, flower/leaf, texture, color, proper location, soil, and blooming periods.

## HLSM 1110 - Turfgrass Management

## 2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
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 propagation, establishment, identification, watering, fertilizing, insects, diseases, and the safe use of power tools for grasses used in Nebraska turf.

## HLSM 1120 - Pomology: Culture and Identification

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This course covers the characteristics, identification, care, and use of small fruits and tree fruits, including establishing planting, controlling pests, pollination, pruning, and fruit set.

## HLSM 1130 - Deciduous Trees: Culture and Identification 2.5-1.5-3.0 <br> Prerequisite: (1) HLSM 1010

This course includes the study of characteristics, growth rate, care, and use of deciduous trees for landscaping purposes in the Midwest. The students follow right plant, right place guidelines and are 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.

## HLSM 1140 - Coniferous Trees: Culture and Identification

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
This course covers both herbaceous and evergreen groundcovers and where they grow. Students also study the broadleaf and needled evergreens with emphasis on the right plant, right place guidelines. Students learn about correct pruning methods and tools and the right time of year to do pruning and propagation.

## HLSM 1150 - Shrubs: Culture and Identification

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
This course covers the use of shrubs in the landscape that are hardy in Nebraska. Emphasis is placed on characteristics that help in identification, including leaf, flower, stems, time of bloom, size of blub, and proper environment for growth. Included in this class are awareness of diseases and insects that might be a problem and knowing pruning techniques and proper time to spray, along with equipment to use.

## HLSM 1160 - Culinary Herb Cultivation

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
Students learn about herbs through cultivating a restaurant-focused culinary garden. Emphasis is placed on seasonal, organic, and biodynamic management practices centered on consumer demand.

## HLSM 1210 - Floral Design: Specialty Events and Occasions

2.0-3.0-3.0

Prerequisite: (1) HLSM 1030
This course provides advanced practice leading to excellence in designing for specialty events.

## HLSM 1220 - Floral Design: Tablescapes and Hospitality 2.0-3.0-3.0 <br> Prerequisite: (1) HLSM 1030

This course provides advanced practice leading to excellence in designing for weddings, home decor, edible arrangements, funerals, and parties.

## HLSM 1300 - History of Design

## 3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This course is a historical survey of landscape design and development from ancient times to the 20th century. It emphasizes landscape forms in light of cultural, political, and environmental influences. Emphasis is placed on identifying and recognizing themes and elements of importance and the role they play in design and the interaction of humans and the environment.

## HLSM 1310 - Introduction to Design

2.0-3.0-3.0

Prerequisite: (1) HLSM 1010
This course introduces students to the areas involved in planning, designing, and drawing landscapes, including the proper use of drafting equipment and technology. This course covers existing site analysis, correct identification of site opportunities and issues, correct placement of proper plant materials, and different types of design theory and methods. The students are required to submit completed designs.

## HLSM 1320 - Landscape Graphics

2.0-3.0-3.0

Prerequisite: (1) HLSM 1010
This course explores current computer applications as they relate to the landscape and design industries. Students explore both two- and threedimensional imaging and how to use these platforms to communicate to clients and contractors.

## HLSM 1400 - Natural Systems and Sustainability

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This class introduces students to the basic principles and importance of natural systems, focusing on ecology and biodiversity. Students are also introduced to the role of sustainability in landscape design and its effect on natural systems. This class encourages critical thinking about design and its impact on the site and surrounding area. Current and potential sustainable design theories are examined along with a brief history of sustainable design.

## HLSM 2200 - Floral Design: Weddings <br> 2.0-3.0-3.0 <br> Prerequisite: (1) HLSM 1030

This course provides advanced practice leading to excellence in designing for weddings.

## HLSM 2210 - Interiorscaping

## 2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
The identification, use, and culture of plants using the latest ideas, techniques, and equipment are covered for homes and commercial interiorscapes.

## HLSM 2300 - Advanced Design <br> 2.5-1.5-3.0

Prerequisite: (2) HLSM 1010 and HLSM 1310
This course builds upon the theory and practice learned in Introduction to Design. Students learn the key elements of designing on a larger scale, which may include landscape design for public, commercial, or industrial sites.

## HLSM 2310 - Construction Documents and Details

2.0-3.0-3.0

Prerequisite: (2) HLSM 1010 and HLSM 1310
This course builds upon the theory and practice learned in Introduction to Design. The material covered includes instruction on reading and putting together construction documents and details of both hardscape and elements in the landscape. Students also investigate the importance of post-occupancy evaluations.

## HLSM 2320 - Grounds Construction and Maintenance

2.0-3.0-3.0

Prerequisite: (2) HLSM 1010 and HLSM 1310
This course builds upon the theory and practice learned in Introduction to Design. The material covered includes instruction on how to construct landscape elements and maintain them once built. Material covered varies based on new trends and technology.

## HLSM 2330 - Therapeutic Horticulture

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
This course is the study of the history of restorative gardens and the benefits provided to people. The course emphasizes therapeutic benefits to people working with plants and gardens.

## HLSM 2340 - Introduction to Regional Planning

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This course introduces students to the basic principles and importance of regional planning.

## HLSM 2400 - Site Systems

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This course introduces students to the basic principles and importance of topography, soil, and storm water.

## HLSM 2410 - Seed Propagation <br> \section*{2.0-3.0-3.0}

Prerequisite: (1) HLSM 1010
This course covers the principles and practices of propagation of plants by means of seed. Emphasis is 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 introduce students to modern plant breeding and genetic engineering. The course also includes hands-on experience with seed harvesting, handling, and germinating various plant species used in the seed production industry.

## HLSM 2415 - Vegetative Propagation

2.0-3.0-3.0

Prerequisite: (1) HLSM 1010
This course covers the principles and practices of propagation of plants by vegetative plan structures. Emphasis is placed on the importance of clones/cultivars that can only be maintained by vegetative means. Students study 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 micro-propagation are covered. 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.

## HLSM 2420 - Plant Pathology <br> 2.5-1.5-3.0 <br> Prerequisite: (1) HLSM 1010

This course is an introduction to plant diseases of economic importance to horticultural crops. Identifying characteristics of diseases, life cycles, and IMP control methods are examined.

## HLSM 2425 - Entomology

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
This course examines detection, identification, and control of insects that damage ornamental plants. Identifying insect characteristics, life cycles, and IMP control methods are examined.

## HLSM 2500 - Small Market Farming <br> 3.0-0.0-3.0 <br> Prerequisite: (1) HLSM 1010

This course is an overview of the current study of urban agriculture, providing perspective on the program and development of the growing field. The course highlights types of urban agriculture from around the world and our country and explores the role plants play in urban sustainability and future urban environments.

## HLSM 2510 - Olericulture

2.5-1.5-3.0

Prerequisite: (1) HLSM 1010
Students learn about food systems through cultivating a restaurant-focused vegetable garden. Emphasis is placed on seasonal, organic, and biodynamic management practices centered on consumer demand.

## HLSM 2520 - Introduction to Small Animal Husbandry

## 2.0-3.0-3.0

Prerequisite: None
This course covers the principles and practices of small animal husbandry: honey bee hives, laying chickens and other poultry, rabbits, and squab. The course covers purchasing, housing, behavior, hygiene, nutrition, and harvest/fabrication.

## HLSM 2610 - Floriculture Production

2.0-3.0-3.0

Prerequisite: (1) HLSM 1010
This course provides an opportunity for students to acquire knowledge and skills in producing greenhouse crops under glass, in plastic structures, and outdoors.

## HLSM 2620 - Nursery and Garden Center Practices

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
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.

## HLSM 2630 - Horticulture Business and Entrepreneurship

3.0-0.0-3.0

Prerequisite: (1) HLSM 1010
This course studies 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.

## HLSM 2900 - Special Topics in HLSM

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other horticulture courses, depending upon interest and relevancy to the curriculum. Topics may include EPA certification, water gardening, and rain gardens.

## HLSM 2910 - Internship

0.0-15.0-3.0

Prerequisite: (2) Minimum of 18.0 credit hours in HLSM; and instructor approval
Students work 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.

## HLSM 2920 - Special Projects in Horticulture

0.0-3.0-1.0

Prerequisite: (2) HLSM 1010 and enrollment in horticulture program
Students work with the horticulture faculty in designing, implementing, and evaluating a special horticulture project. Students meet with the faculty on a regular basis for consultation and evaluation.

## HLTH - Health

## HLTH 1050 - Nutrition in the Life Cycle $\checkmark \nexists$ <br> 4.5-0.0-4.5 <br> Prerequisite: (1) BIOS 1310 or BIOS 2310

Nutrition represents an important health concern throughout the life cycle. This course includes human nutrition, nutrition in healthcare through the lifecycle, introduction to therapeutic and modified diets, nutritional assessment and analysis, and a brief introduction overview of nutrition support. This course also covers gastrointestinal, cardiovascular, respiratory, and endocrine systems as related to medical nutrition therapy. This is a transferable course.

## HLTH 1200 - Long-Term Care - CNA

5.0-4.5-6.5

Prerequisite: (2) 16 years of age and MCC assessment test
The course meets 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 focuses on teaching nursing assistants to provide safe, effective, and caring services to the elderly or chronically ill patients of any age in a longterm care facility.

## HLTH 1300 - Medication Aide

5.0-0.0-5.0

Prerequisite: (1) 18 years of age
This course prepares students to meet the requirements of the Nebraska Medication Aide Act. It 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 or a skilled care nursing facility.

## HLTH 2900 - Selected Topics <br> Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses in the Health program.

## HMRL - Human Relations

## HMRL 1010 - Human Relations Skills - ß, © <br> 4.5-0.0-4.5 <br> Prerequisite: None

This is an introductory course in interpersonal skills, stressing the importance of utilizing those skills in the workplace. Students are 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 communication skills, multinational and diversity awareness, teamwork, and job-seeking skills as applied to an increasingly customer-oriented workplace.

## HMRL 1050 - Leadership: Training and Skill Development

4.5-0.0-4.5

## Prerequisite: None

This course prepares students to assume increasingly responsible leadership roles in their 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 students practice leadership in action.

## HMRL 2900 - Special Topics in Human Relations <br> Variable

Prerequisite: None
This course permits instruction in special areas of interest within the human relations discipline.

## HMSV - Human Services

## HMSV 1010 - Introduction to Human Services- -

4.0-0.0-4.0

Prerequisite: None
This introductory course explores the human services field. It exposes students to historical perspectives, ethics, and the role of the community support human service practitioner in various agencies and specific areas of human services employment.

## HMSV 1110 - Interpersonal Communication Skills $-\mathcal{B}$

3.0-1.5-3.5

Prerequisite: None
This is an introductory course in basic interpersonal communication skills. Students discuss, evaluate, and demonstrate skills of appropriate self-disclosure, active listening, and appropriate challenging. They acquire these skills through small group discussion with other students and a video-taped interpersonal conversation.

## HMSV 1120 - Helping Skills and Techniques

3.0-1.5-3.5

Prerequisite: (1) HMSV 1110 with a grade of C or better
This course begins to prepare students to use good helping skills on a one-to-one basis. Counseling skills and 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. Students acquire and demonstrate skill through videotaped role-plays, in-class role-plays, counseling critiques, case studies, and other experiential exercises.

## HMSV 1130 - Introduction to Counseling Theories

3.0-1.5-3.5

Prerequisite: (2) HMSV 1120 and ENGL 1020 both with grades of C or better
Students focus on an examination of the historical and current theories of counseling. Students practice using counseling techniques and theories and demonstrate an integrated theoretical approach through role playing and videotaped interviews.

## HMSV 1140 - Assessment, Case Planning, and Management $\mathcal{B}$ 4.5-0.0-4.5

Prerequisite: (1) LMHP or PLMHP; or (2) ENGL 1020 and PSYC 1010 both with grades of $C$ or better
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 referral of chemical dependency clients. The course includes instruction on coordinating and prioritizing client treatment goals and working with other services, agencies, and resources to achieve those treatment goals. It also includes practice in assessing and managing a case, including the development of sample case records and utilizing written client records to guide and monitor services with emphasis on the development of the social history and intake, initial assessment, case reviews and consultation, individual treatment plan with measurable goals and objectives, documentation of progress, on-going assessment, and discharge planning including appropriate referrals. Students address confidentiality of client information and records as defined in 42 CFR Part 2 and study the strengths and weaknesses of various levels of care and the selection of an appropriate level for clients. They study basic information on two or more objective assessment instruments for alcohol or drug disorders, such as the Michigan Alcoholism Screening Test, Substance Abuse Subtle Screening Inventory, Addiction Severity Index, Mortimer-Filkins, and others.

## HMSV 1150 - Community Resources

4.5-0.0-4.5

Prerequisite: (1) HMSV 1010
This course provides students with the 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 students to begin to develop knowledge of community resources.

## HMSV 1160 - Medical and Social Aspects of Addictions $\checkmark \forall$

4.5-0.0-4.5

Prerequisite: (1) LMHP or PLMHP; or ENGL 1010
Corequisite: PSYC 1010; waived for those with LMHP or PLMHP
This course includes the study of the physiological/psychological and sociological aspects of alcohol/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. The course also includes the etiological, behavioral, cultural, and demographical aspects and belief systems about alcohol/drug use along with the process of dependence and addiction and withdrawal signs, symptoms, and behavior patterns. NOTE: For those without LMHP or PLMHP, the corequisite PSYC 1010 must be taken concurrently or previously completed.

## HMSV 2050 - Professional Ethics and Issues - -

2.0-0.0-2.0

Prerequisite: (1) ENGL 1010
Corequisite: HMSV 1130 and HMSV 2150
This course addresses 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. This course examines ethical codes of professional organizations. These organizations include, but are not limited to, NOHSE, NAADAC, ACA, APA, ARCA, and NASW. NOTE: The corequisite HMSV 2150 must be taken concurrently or previously completed.

## HMSV 2110 - Group Counseling

## 4.5-0.0-4.5

Prerequisite: (1) ENGL 1020
Corequisite: 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. NOTE: The corequisite HMSV 1130 must be taken concurrently or previously completed.

## HMSV 2120 - Social Services Policy

4.5-0.0-4.5

Prerequisite: (4) HMSV 1010; SOCI 1010; PSYC 1010; and ENGL 1020
This course provides an examination of social policy development. The examination focuses on historical factors; value assumptions; and social, political, and economic contexts. It emphasizes the processes and skills necessary for examination and evaluation. Students explore social issues in the field of human services and relate them to social policy.

## HMSV 2130 - Treatment Issues in Chemical Dependency - © 4.0-0.0-4.0

Prerequisite: (1) LMHP or PLMHP; or (2) HMSV 1160 and ENGL 1020 Corequisite: HMSV 1140; waived for those with LMHP or PLMHP
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, 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. Students discuss treatment issues specific to different populations; other aspects of chemical dependency treatment, including treatment methodology; 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. NOTE: For those without LMHP or PLMHP, the corequisite HMSV 1140 must be taken concurrently or previously completed.

## HMSV 2140 - Family Therapy

## 4.0-0.0-4.0

Prerequisite: (2) HMSV 1130 and ENGL 1010
Corequisite: SOCI 1010
This course reviews theories of family therapy with an emphasis on the systemic model of therapy. It applies theoretical approaches to case examples. NOTE: The corequisite SOCI 1010 must be taken concurrently or previously completed.

## HMSV 2150 - Multicultural Counseling

## 4.5-0.0-4.5

Prerequisite: (1) ENGL 1020
Corequisite: HMSV 1130
This course focuses on the counseling implications for cultural, social, and economic factors as they affect diverse groups, including African- Americans, Native Americans, Hispanics, and others. Students pay attention to multicultural barriers and to the impact of the counselor's own world view on the counseling relationship. The course examines adaptation of counseling techniques and theories to the needs of minority clients. NOTE: The corequisite HMSV 1130 must be taken concurrently or previously completed.

## HMSV 2160 - Advanced Group Skills

## 4.5-0.0-4.5

Prerequisite: (1) HMSV 2110
This course is an advanced course in the theory and practice of group counseling. Students 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

## 4.5-0.0-4.5

Prerequisite: (2) ECED 1150 or HMSV 1010; and ENGL 1020
This course focuses on the identification, definition, and causes of exceptionalities. It emphasizes concepts and trends in the field of exceptionalities as well as laws pertaining to the rights and services of exceptional people.

## HMSV 2310 - Prepracticum

## 2.0-1.5-2.5

Prerequisite: (7) HMSV 1010 or HMSV 1160; HMSV 1110; HMSV 1120; HMSV 1140; PSYC 1010; ENGL 1010; and FINA 1000 or MATH 1220 or higher Corequisite: HMSV 2050
This course focuses on factors necessary for the successful completion of a practicum. Topics 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 practicum; and volunteering in a human service organization or agency. NOTE: The corequisite HMSV 2050 must be taken concurrently or previously completed.

## HMSV 2450 - Crisis Intervention <br> 3.0-0.0-3.0

Prerequisite: (2) HMSV 1120 and ENGL 1020
This course explores theories about crisis intervention and how to apply that theory in the field and systematically improves students' interview, communication, evaluation, and helping skills within the framework of crisis intervention and management.

## HMSV 2900 - Special Topics in Human Services

Variable
Prerequisite: (1) Instructor approval
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 0.0-15.0-5.0

Prerequisite: (2) Completion of all first-year courses as listed in the catalog; and special admission requirements
This course provides field opportunities to expand and apply students' practical and classroom experience. Students must complete field experience and a practicum seminar in conjunction with the assigned practicum.

## HMSV 2992 - Practicum II - General Human Services

0.0-15.0-5.0

Prerequisite: (1) HMSV 2991
This course provides opportunities and experiences to integrate and apply classroom and textbook knowledge in addition to experiences from the first practicum. Students must complete field experience and a practicum seminar in conjunction with the assigned practicum.

HMSV 2993 - Practicum III - General Human Services
0.0-15.0-5.0

Prerequisite: (1) HMSV 2992
This course provides experience in a more specialized area of human services. Students continue to integrate and apply classroom knowledge and experiences as well as experiences from the first two practica. Students must complete a practicum seminar in conjunction with the assigned practicum.

## HMSV 2994 - Practicum I - Chemical Dependency Counseling

0.0-15.0-5.0

Prerequisite: (2) Completion of all first year courses as listed in the catalog; and special admission requirements
This course provides an opportunity to have a practical work experience with chemical dependency counseling. The College assigns students to agencies, institutions, or treatment centers serving and treating chemically dependent clients. Students must complete a practicum seminar in conjunction with the assigned practicum.
HMSV 2995 - Practicum II - Chemical Dependency Counseling

## 0.0-15.0-5.0

Prerequisite: (1) HMSV 2994
This course provides the opportunity to expand students' practical work experience in chemical dependency counseling. The College assigns students to agencies, institutions, or treatment centers serving and treating chemically dependent clients. Students must complete a practicum seminar in conjunction with the assigned practicum.

## HMSV 2996 - Practicum III - Chemical Dependency Counseling <br> 0.0-15.0-5.0

Prerequisite: (1) HMSV 2995
This course provides the opportunity to expand students' practical work experience in chemical dependency counseling. The College assigns students to agencies, institutions, or treatment centers serving and treating chemically dependent clients. Students must complete a practicum seminar in conjunction with the assigned practicum.

## HUMS - Humanities

## HUMS 1000 - Humanities through the Arts©

4.5-0.0-4.5

Prerequisite: None
Students explore the range of humanity's creative responses to the fundamental intellectual and artistic questions that have continually preoccupied reflective individuals.

## HUMS 1100 - Classical Humanities $\checkmark$

4.5-0.0-4.5

Prerequisite: None
This course is an interdisciplinary examination of the ancient Greek and Roman cultures. NOTE: Completion of ENGL 1010 and ENGL 1020 prior to this course is strongly recommended for student success.

HUMS 1110 - Origins of the Humanities $\checkmark$
4.5-0.0-4.5

Prerequisite: None
This course explores the ancient non-Western cultures and societies that gave rise to Western civilization. Topics include art, literature, and philosophy in the ancient cultures of the Near East, Asia, and the Mediterranean.

HUMS 1120 - The Humanities in the Medieval - Renaissance World- -4.5-0.0-4.5

Prerequisite: None, but ENGL 1010 and ENGL 1020 are recommended prior to this class
This course is an interdisciplinary overview of the development of European culture focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy. This course concentrates on the evolution of the Western civilization from the Medieval period through the Renaissance. (Formerly Humanities I: Medieval - Renaissance)

HUMS 1130 - The Humanities in the Modern World- -8
4.5-0.0-4.5

Prerequisite: None, but ENGL 1010 and ENGL 1020 are recommended prior to this class.
This course is an interdisciplinary overview of the development of Western culture from the Baroque period through the present. (Formerly Humanities II: Modern World)

HUMS 1150-The Humanities in the Non-Western World $\underbrace{\circ}$
4.5-0.0-4.5

Prerequisite: None, but ENGL 1010 and ENGL 1020 are recommended prior to this class.

This course is a comparative study of non-Western cultures focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy. It focuses on the past and contemporary cultural achievements of the people of the Middle East, Africa, Asia, and Oceania. (Formerly Multi-Cultural Humanities II: The Humanities in the Non-Western World)

## HUMS 2310 - Film History and Appreciation -

4.5-0.0-4.5

Prerequisite: (1) ENGL Level I; or 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 examines film theory and ideology. It covers how film works technically, stylistically, aesthetically, and culturally.

## HUMS 2900 - Special Topics in the Humanities

Variable
Prerequisite: None
This course permits instruction in special content areas not included in other
humanities courses. Topics may expand upon the relationships between culture and the visual or performing arts and the investigation of non-Western cultures.

## HVAC - Heating, Air Conditioning, and Refrigeration

## HVAC 1000 - Refrigeration Electrical Theory and Application

 5.0-3.0-6.0Prerequisite: None
This course consists of lectures, discussions, and demonstrations in the general area of electrical theory and practice used in HVAC systems. It makes a general study of the electron theory as it relates to the electrical circuit and covers various circuits, resistance capacitance, symbols, and ladder diagrams. Students conduct lab experiments to provide understanding of electrical theory. The course places great emphasis upon safety, as students are working with actual controls and voltages.

## HVAC 1010 - Refrigeration Service Principles and Basic Automatic Controls

 5.0-3.0-6.0Prerequisite: None
This course provides experience in actual refrigeration service practice and stresses controls, system maintenance, and subassembly replacement. Students work out typical service problems and learn the fundamentals of controls, definitions, measurements, electric controls, safety controls, and refrigerant controls.

## HVAC 1020 - Refrigeration Shop Practices

2.0-3.0-3.0

Prerequisite: None
This course provides practice in using tools in basic refrigeration jobs, such as tube bending, flaring, swaging, and soldering. Students become acquainted with standard shop tools and equipment so they can meet or exceed industry standards.

## HVAC 1210-Gas Heat

2.0-3.0-3.0

Prerequisite: (1) HVAC 1000
Students examine, service, and troubleshoot various types of gas furnaces. The course covers heating fundamentals, including combustion and heat transfer, and explains heating components, including spark ignition. Special attention is given to safety.

## HVAC 1211 - Electric Heat <br> 2.0-3.0-3.0

Prerequisite: (1) HVAC 1210
Students make a comprehensive study of electric furnace wiring for residential and light commercial installations. The course covers operating and safety controls in-depth and gives considerable time to proper care and use of test instruments, troubleshooting, and safety requirements.

HVAC 1220 - Oil Burners
2.0-3.0-3.0

Prerequisite: (1) HVAC 1000
This course involves the study of high-pressure burners and covers service and troubleshooting on high-pressure fuel pumps, primary controls, electrodes, and transformers. It gives special emphasis to safety, combustion efficiency tests, and adjustments.

## HVAC 1330 - Commercial Refrigeration Installation

2.0-3.0-3.0

Prerequisite: (3) HVAC 1000; HVAC 1010; and HVAC 1020
Students install a complete refrigeration system (low-temperature/mediumtemperature) using hard-drawn copper tubing. Students also wire, leak check, evacuate, and charge 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

## 2.0-3.0-3.0

Prerequisite: (2) HVAC 1000 and HVAC 1010
Corequisite: HVAC 1020
The course studies various systems, and students solve typical service problems. Students repair refrigerant leaks, replace components, evacuate and dehydrate systems, install oil and refrigerant charges, and test and adjust systems. NOTE: The corequisite HVAC 1020 can be taken concurrently or have previously been completed.
HVAC 1500 - Air Conditioning, Domestic Refrigeration, and Appliance Repair
2.0-3.0-3.0

Prerequisite: (2) HVAC 1000 and HVAC 1010
Corequisite: HVAC 1020
This course begins with a review of the refrigerant cycle and system components and covers terminology used in the trade, principles of refrigeration, and identification of basic system components. Students practice with tools and shop equipment of the trade, including instruction in standard procedures and safety measures. They study and service self-contained air-cooled residential systems. The course covers appliance repairs such as washers, dryers, and microwaves, and gives special attention to safety. NOTE: The corequisite HVAC 1020 can be taken concurrently or have previously been completed.

## HVAC 1540 - All-Weather Systems (Conventional) <br> 2.0-3.0-3.0

Prerequisite: (1) HVAC 1210
The course emphasizes combination heating and cooling systems. The class and laboratory time deals primarily with natural gas heating and cooling systems. It also covers humidification, electronic air cleaning, and air filtering.

## HVAC 2220 - All-Weather Systems (Heat Pumps)

2.0-3.0-3.0

Prerequisite: (1) HVAC 1211
This course covers the refrigerant cycle and the reverse cycle principle, including the reversing valve. It discusses special components and accessories used with heat pumps and devotes a considerable amount of instruction to electric controls found on heat pump systems and to the various services involved.

## HVAC 2221 - Installation and Service Problems <br> 2.0-3.0-3.0

Prerequisite: (1) HVAC 1210
Students make a thorough study of problems related to gas heat installation. The course covers the areas of venting, combustion air, gas piping, and troubleshooting. Efficiency tests are conducted in the lab. The course places special emphasis on safety.

## HVAC 2310 - Refrigeration Certification

2.0-0.0-2.0

Prerequisite: None
This course covers the usage of EPA-approved equipment to remove, recycle, and reclaim refrigerant. Students take the EPA test with a pass or fail of 75 percent minimum.

## HVAC 2320 - Advanced Commercial Refrigeration

2.0-3.0-3.0

Prerequisite: (2) HVAC 1000 and HVAC 1010
This course studies various types of installations with emphasis on the product to be cooled, the desired temperature to be maintained, and humidity conditions. It presents problems involving system balance and component capacity, use of heat
load charts, pipe sizing tables, manufacturers' data, and specification sheets, along with procedures for load calculations used in commercial refrigeration. Lab work consists of wiring and monitoring live units.

## HVAC 2400 - Blueprint Reading for Air Conditioning 3.0-0.0-3.0 <br> Prerequisite: None

Students learn to read and interpret service manuals covering air conditioning and
heating. The course covers duct layout on prints for various residential structures.

## HVAC 2420 - Advanced Residential Air Conditioning

## 2.0-3.0-3.0

Prerequisite: (1) HVAC 2400
Students calculate heating and cooling needs of various structures using computerized calculators. The course covers equipment selection, duct design, static pressure, and airflow.

## HVAC 2421 - Advanced Commercial Air Conditioning 2.0-3.0-3.0 <br> Prerequisite: (1) HVAC 2400

Students make calculations on heat loss and gain for small commercial buildings. The course covers duct layout with special emphasis on equipment selection, registers, and grilles.

## HVAC 2550 - Air Conditioning (Commercial) <br> 2.0-3.0-3.0

Prerequisite: (1) HVAC 1540
This course covers single- and three-phase power and includes compressors, condensers, coils, valves, and controls for commercial equipment. Students study and service unitary, remote, water, and air-cooled water tower systems.

## HVAC 2560 - Sheet Metal Layout

2.0-3.0-3.0

Prerequisite: None
This course defines the basic fittings used in residential air conditioning and heating systems. Students participate in identification of typical hand tools, project layout, fabrication, machine operation, and final assembly of 12 completed modules.

## HVAC 2570 - Automated Building Controls

2.0-3.0-3.0

Prerequisite: (1) INFO 1001 or instructor approval
This course introduces students to the microprocessor and various HVAC systems and their components. Students learn special commands and programming of the microprocessor controller.

HVAC 2900 - Special Topics in HVAC

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses in the Heating, Air Conditioning, and Refrigeration program.

## HVAC 2981 - Internship <br> 0.0 - variable - 3.0

Prerequisite: (1) Instructor approval
The internship provides experience in systems identification of components systems, temperature ranges, systems cleaning, refrigeration charging operations, leak checking and repairing, customer relations, and billing. The course includes student performance evaluations and on-site inspection. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## INCT - Industrial and Commercial Trades

## INCT 0900 - Introduction to the Trades

2.0-0.0-2.0

Prerequisite: None
This course introduces the trades by examining the various employment paths available. It includes classroom discussion, on-site tours, and guest presenters. It also covers tools, fasteners, equipment, basic measurement, and shop safety.

INCT 1000 - Industrial Safety and Health
4.5-0.0-4.5

Prerequisite: None
This course covers the basics of industrial safety and health. Topics covered are OSHA-required and include introduction to OSHA, managing safety and health, hazard communication, fire protection, emergency action plans, electrical safety, PPE, material handling, and machine guarding. This course also covers OSHA elective areas such as BBP, fall protection, welding, LOTO, and confined spaces. Students who successfully complete and attend all OSHA-required and elective sections of this course are eligible to receive the OSHA 30-hour general industry card.

## INCT 1010 - Introduction to the Trades II

Variable
Prerequisite: None
This course is designed to introduce students to skills generally required for entrylevel employment in the trades. Topics include basic safety, hand tools, power tools, construction math, print reading, rigging, communication, and employability skills.

## INCT 1020 - Lead Safe Practices I

1.0-0.0-1.0

Prerequisite: None
This course provides eight hours of instruction in lead safety training as it applies to remodeling repairs and painting. It uses curriculum developed by the EPA and HUD and is an approved EPA/HUD RRP English initial certification course.

## INCT 1025 - Lead Abatement Worker

1.5-0.0-1.5

Prerequisite: (2) CNST 1080 and INCT 1020
This course provides students with the training necessary to eliminate lead-based hazards in residential dwellings. This includes the removal of lead-based paint, lead-contaminated dust, and lead-contaminated soil.

## INCT 1028 - Lead Abatement Supervisor <br> 3.0-0.0-3.0

Prerequisite: (1) INCT 1025
This course builds upon the Lead Abatement Worker course in eliminating leadbased hazards from residential dwellings. The lead abatement supervisor also prepares the occupant protection plans and abatement reports.

## INCT 1050-Mechanical Print Reading

4.0-0.0-4.0

Prerequisite: None
This course develops the 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 1100 - Logistics and Warehousing for Applied Technologies 4.5-0.0-4.5 <br> Prerequisite: None

This course is an introduction to the logistics and warehousing career field. Students study the planning, management, and movement of people, materials, and products by road, air, rail, pipeline, and water. This course is designed as an introduction to the activities associated with transportation,
warehousing/distribution/material handling, and inventory management, with particular attention to applications in the applied technologies area. Additional information includes industry history, legal and regulatory issues, documentation requirements, and safety and security concerns. This course prepares students to test for the nationally recognized certification as a Certified Logistics Associate (CLA).

## INCT 1212 - Motor and Machine Controls

9.0-0.0-9.0

Prerequisite: (1) ELAP 1220 or ELTR 1200 with a grade of $C$ or better in both
This course introduces state-of-the-art motor control components and provides students with a basic knowledge of control circuitry. Students build on their experiences from Basic Electricity by designing, building, and troubleshooting more complex circuits. The designed circuits control live, three-phase, line voltage equipment. Students use devices such as contactors, motor-starters, relays, timers, mechanical, and proximity switches. They also learn about and utilize electronic motor controls and programmable devices such as variable frequency drives.

## INCT 1301 - Home and Building Maintenance Carpentry

6.5-0.0-6.5

Prerequisite: None

This course includes an introduction to maintenance carpentry. Topics include basic carpentry tools, tool safety, drywall hanging and patching, and suspended ceiling installation. The course emphasizes insulation and weatherization.

## INCT 1303 - Basic Plumbing

6.0-1.5-6.5

Prerequisite: None
This course includes an introduction to the plumbing trade through safety, types of plumbing supplies, the designing and installation of plumbing systems, and identification of valves, faucets, and water heaters. It covers troubleshooting and repairs of typical plumbing problems.

## INCT 1304 - Small Engine Repair

4.0-1.5-4.5

Prerequisite: None
This course covers the individual systems in small gas engines that work together to produce power. Students learn the six systems of internal combustion gasoline-powered engines: fuel, exhaust, ignition, combustion, cooling, and lubrication. This course also covers safety, proper use of hand tools, and special tools used in the repair and maintenance of small engines.

INCT 1400 - Introduction to Precision Machine Technology

## 6.0-1.5-6.5

Prerequisite: None
This course introduces machines, tools, and processes associated with the machine trade. It covers fundamentals in bench layout, basic machine tool operation and metal removal processes, measuring devices, and identification of equipment.

## INCT 1410 - Precision Layout and Finishing

## 4.0-0.0-4.0

Prerequisite: (1) INCT 1400 with a grade of $C$ or better
Students gain experience in the operation of the standard upright drill press and horizontal and vertical saws. They use different work-piece holding methods, such as vises and fixtures, in the process of drilling, reaming, counter-boring, and tapping.

## INCT 1420 - Basic Engine Lathe

4.0-0.0-4.0

Prerequisite: (1) INCT 1410 with a grade of $C$ or better
This course covers basic engine lathe operations, including calculating speeds and feeds, rough turning, facing, center drilling, grooving, filleting, and cutting angles with compound rest. It emphasizes machine safety.

## INCT 1421 - Basic Milling Machine

4.0-0.0-4.0

Prerequisite: (1) INCT 1410 with a grade of $C$ or better
This course covers fundamental operations common to milling machine practice. Students become familiar with and use 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 <br> 4.0-0.0-4.0

Prerequisite: (1) INCT 1410 with a grade of $C$ or better
This course covers the different types, shapes, and markings of grinding wheels. Students acquire 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

## 4.5-0.0-4.5

Prerequisite: None
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. It also introduces basic accounting principles and contract law necessary for distribution.

## INCT 2025 - Lead Abatement Inspector

## 2.5-0.0-2.5

Prerequisite: (1) INCT 1028
This course prepares students to properly perform lead inspections for the state of Nebraska. This course discusses the health effects of lead exposure, regulatory background information, liability, and other legal issues. Students have hands-on experience in visual inspection, dust and soil samplings, data analysis, and report preparation.

INCT 2028 - Lead Abatement Risk Assessor
1.5-0.0-1.5

Prerequisite: (1) INCT 2025
This course prepares students to take the state of Nebraska exam to become a Certified Lead Inspector/Risk Assessor. The course teaches students how to prepare long- and short-term solutions to lead hazards that may be present to prevent childhood lead poisoning.

## INCT 2050 - Problem-Solving

3.0-0.0-3.0

Prerequisite: None
This course builds troubleshooting expertise for maintenance professionals and decision-makers at all levels. It examines creative and critical thinking, problem solving, and troubleshooting.

## INCT 2060 - Mechanical Power Systems

4.0-0.0-4.0

Prerequisite: None
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

4.0-0.0-4.0

Prerequisite: None
This course covers the basics of fluid power, both hydraulic and pneumatic. It also covers transmission of fluid energy, identification of components, and controls.

## INCT 2231 - Programmable Logic Controllers I

4.5-0.0-4.5

Prerequisite: (1) INCT 1212 with a grade of $C$ or better
This course introduces programmable logic controllers. It covers various programmable control devices. It covers system components, installation, and introductory programming terms. Students learn to monitor, upload, and download programs to processors. NOTE: Students registering for this class and planning to go on to INCT 2232 Programmable Logic Controllers II must register for both classes. INCT 2231 and INCT 2232 run 5.5 weeks consecutively during the same quarter.

## INCT 2232 - Programmable Logic Controllers II <br> 4.5-0.0-4.5

Prerequisite: (1) INCT 2231 with a grade of $C$ or better
This course focuses on troubleshooting machine problems using the programmable logic controller. It covers search functions, timers, counters, and editing of existing programs. Students learn to diagnose machine failures through the processor program.

## INCT 2235 - Programmable Logic Controllers Applications <br> 9.0-0.0-9.0

Prerequisite: (4) INCT 1050; INCT 2060; INCT 2070; and INCT 2232 with a grade of $C$ or better
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. Students study and practice the creation of machine files and documentation as well as the process of working from the rules of operation and creating a program. The course challenges students to write a program, test and de-bug the program, and commission a machine into final operation.

## INCT 2410 - CNC I

4.0-0.0-4.0

Prerequisite: (2) INCT 2420 and INCT 2421
This course covers the basic theory, setup, operation, and maintenance of CNC machines. (Formerly CNC Milling)
INCT 2411 - CNC II
4.0-0.0-4.0

Prerequisite: (1) INCT 2410
This course covers programming of G-Codes and operation of CNC machines.

## INCT 2412 - CNC III

4.0-0.0-4.0

Prerequisite: (1) INCT 2411
This course covers introduction to the use of CadCam software, Master Cam.

## INCT 2420 - Intermediate Engine Lathe

4.0-0.0-4.0

Prerequisite: (1) INCT 1420 with a grade of $C$ or better
Students learn the techniques of drilling, threading, boring, tapping holes, and reaming. The course emphasizes proper methods of cutting tapers with the compound rest and taper attachment and the skills necessary for cutting threads by the single-point tool method.

## INCT 2421 - Intermediate Milling Machines

4.0-0.0-4.0

Prerequisite: (1) INCT 1421 with a grade of $C$ or better
Students develop skills in determining cutting feeds and speeds, work holding methods, and performing additional milling operations, including end milling, drilling, reaming, and boring.

## INCT 2440 - Advanced Machining Process

4.0-0.0-4.0

Prerequisite: (2) INCT 1410 and INCT 2421 with a grade of $C$ or better
This class helps students gain shop time experience and, at the same time, schedule and estimate time required for a project. Students select a project and get it approved by the instructor. They have the opportunity to schedule and complete their project. Upon completion of the project, students compare the scheduled time to the actual time as well as the quality and quantity.

## INCT 2500 - Tool and Die Technology

4.0-0.0-4.0

Prerequisite: (1) INCT 2412
This course covers the fundamentals of basic die theory and design.

## INCT 2510 - Die Design and Construction

4.0-0.0-4.0

Prerequisite: (1) INCT 2500
In this course, students design and construct a basic die.

## INCT 2900 - Special Topics in Industrial and Commercial Trades

 VariablePrerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses of the Industrial and Commercial Trades program.

## INCT 2981 - Internship <br> Variable

Prerequisite: (1) Instructor approval
The internship provides students the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at an approved work site. To develop an internship to meet their academic and career goals, interested students must contact their program faculty. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## INFO - Information Technology

## INFO 1001 - Information Systems and Literacy - , ©

4.5-0.0-4.5

Prerequisite: None
This course is a broad-based introduction to information technology systems and literacy concepts. Students are introduced to computer technology concepts and skills needed to be successful in their academic and professional lives. The course focuses on both technology and proficiency. Topics include computing devices, using the cloud, technology enhanced research, effective search techniques, office automation tools, security, and the Internet. For students who feel they have mastered the concepts taught in this course, an INFO 1001 competency test is available in the Testing Centers. NOTE: A basic understanding of computer systems is recommended prior to taking this course. Students desiring to take a basic introductory computer course should enroll in WORK 0900 Introduction to Microcomputer Technology.

## INFO 1002 - Introduction to Information Technology $\bigcirc$, ©

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1001
This course explores current topics and disciplines in the field of information technology. Working in a collaborative environment, students apply project management concepts, ethics, and security to investigate application development, IT management, applied technology, and IT network support. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1003 - Introduction to Computer Programming $\rightarrow$,

## 5.0-0.0-5.0

Prerequisite: None
This course provides students 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. Students use flowcharts, pseudo code, and algorithms to document logic as a solution to a programming problem. Students enrolling in INFO 1003 need to understand the basics of how to use a personal computer. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1005 - Keyboarding $-\nrightarrow$

## 1.5-1.5-2.0

Prerequisite: None
This is a beginning course for students with little or no previous keyboarding instruction. It introduces the computer keyboard and develops correct techniques for attaining useful levels of speed and accuracy. NOTE: Students cannot test out of this course.

## INFO 1007 - Introduction to Object-Oriented Computer Programming -3.0-0.0-3.0

Prerequisite: None
This class is for experienced programmers who want to transition from a systembuilding mindset to an object-oriented perspective - how to object think and program using object-oriented principles. It provides experienced programmers a firm foundation in concepts used in object-oriented computer programming. Students learn about attributes and methods, inheritance, polymorphism, realworld and case modeling, and object-oriented programming languages. Students who enroll in INFO 1007 should be proficient in a graphic user interface environment.

## INFO 1008 - Business Office Communications $-\bullet$

4.5-0.0-4.5

Prerequisite: (1) ENGL 0960 or assessment testing
This course explores the use of technology and methods for effective written and verbal communication in today's business environment. Students learn various written and verbal communication styles with emphasis on business office writing skills and English grammar. Technology topics include exploring applications commonly used in office communications as well as the detailed use of Microsoft Office Outlook software.

## INFO 1009 - Introduction to Cloud Computing ${ }^{3}$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
Cloud computing refers to performing computer tasks using services, resources, and storage delivered entirely via the Internet. Cloud computing is the newest technology with movement away from applications needing to be installed on an individual's computer system toward the applications being hosted online. In this course, students gain understanding and knowledge of cloud computing and how it is changing the computer world. Topics to be discussed include types of clouds, Software as a Service (SaaS), Platform as a Service (Paas), and Infrastructure as a Service (laaS). Students also learn about the different methods cloud computing is accessible to the user: public clouds, private clouds, and hybrid clouds.

## INFO 1010 - Customer Service Skills $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (1) ENGL 1220
This course provides an in-depth look at the soft skills and self-management skills needed to provide effective customer service and support in all business environments.

## INFO 1011 - Project Management $\mathcal{B}$

4.5-0.0-4.5

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 a deep dive into the project management process, resource management (time, money, and people), quality control, communications, and risk. Students complete projects utilizing project management software. (Formerly Project Management I)

## INFO 1012 - Electronic Filing and Calculating $ß$

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
Corequisite: MATH 1220
Students utilize manual and electronic methods to complete a variety of practical applications. Projects include records management using the standard indexing rules developed by the Association of Records Managers and Administrators. The
course also covers financial records management, including using the 10-key desktop electronic calculator for basic math problems, decimals, percents, fractions, combined operations, petty cash accounts, payroll, mark up and mark down, invoices, and banking records. NOTE: The corequisite MATH 1220 can be taken concurrently or have previously been completed.

## INFO 1013 - Keyboard Skillbuilding $-\mathcal{B}$

1.5-1.5-2.0

Prerequisite: (1) INFO 1005
This course includes diagnosis of current keyboarding skills, individualized practice, and evaluation of progress. Students use the alphabetic keyboard and numeric keypad. Students must have prior keyboarding experience. NOTE: Recommended speed for enrollment and optimal success is 30 wpm . The INFO 1005 prerequisite may be waived by course instructors for students who can type 30 wpm on the entrance timing taken the first week of class.

## INFO 1023 - Networking Essentials•••

4.5-0.0-4.5

Prerequisite: (1) INFO 1002
This course explores current topics and disciplines in the field of information technology. Working collaboratively, students apply project management concepts, ethics, and security to investigate development, IT management, applied technology, and IT network support. Note: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1110 - Windows Operating Systems I-B, ©

4.5-0.0-4.5

Prerequisite: (2) INFO 1001 and INFO 1003
This course introduces students to Microsoft Windows desktop operating system. Students learn fundamental concepts to effectively use and manage the Microsoft Windows desktop operating system. Many of the objectives comply with industry standard certification exam objectives. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1111 - Linux Operating Systems IB <br> \section*{4.5-0.0-4.5}

Prerequisite: (2) INFO 1003 and INFO 1110
This course introduces the Linux operating system. Students learn about navigation of the file structure, communication methods, text editors, script writing, and fundamental concepts of Linux required to use the system effectively. This course is the first step in preparing students to successfully achieve Linux+ certification. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1112 - Introduction to IBM i- -3

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
This course introduces students to the IBM i. It presents the architecture of the IBM i system. Topics covered include IBM i menus, system displays, logical and physical files, and an introduction to control language (CL). Other topics include code and operational navigator and any new topics or technology in the IBM i area.

## INFO 1113 - AIX Operating System

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This is a course for beginning UNIX students. It introduces students to the IBM AIX UNIX operating system. 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 - Windows Operating System IIß

4.5-0.0-4.5

Prerequisite: (1) INFO 1110
This course provides an overview of managing a Windows desktop operating system. Students install the operating systems and then optimize and protect them. Students consider the operating systems as a stand-alone system, a client on a network, and a network operating system. Emphasis is focused on the use of Windows PowerShell for automation and administration. This course maps to many industry certification objectives.

## INFO 1121 - Linux Operating Systems II <br> 4.5-0.0-4.5 <br> Prerequisite: (1) 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 1140 - IBM i Operator Analyst I-©

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course is designed to introduce a new system operator to the basic skills needed for day-to-day operations of the power system with IBM i. Topics such as monitor and control job devices, job and output queues, system start and stop, and user profile creation and changes are included in the course.

## INFO 1211 - Microsoft Word $-\bigcirc$

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
This course explores the features of Microsoft Word to create, design, and produce professional documents. It emphasizes character, paragraph, and document formatting. Students explore features such as tables, columns, labels, envelopes, outlines, styles, borders, shading, AutoFormat, AutoText, and templates. Students learn to enhance the visual display and clarity of documents by using various customizing and enhancement features. In addition, the course also covers working with multiple documents, using basic file management techniques, inserting graphic elements, footnotes, cross-references, fill-in forms, and exploring the development of Web pages. Students must receive a C or better in this course to enroll in the Office Professional Capstone course. (Formerly INFO 1210 Microsoft Word I and INFO 1220 Microsoft Word II)

## INFO 1212 - Spreadsheets $\checkmark$ B

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
This course teaches students spreadsheet techniques using Microsoft Excel. Students learn to design, create, manipulate, and print worksheets; use templates; create graphs; conduct what-if analysis; use various functions; create static and dynamic Web pages; send workbooks via email; and work with multiple worksheet/workbooks. (Formerly Spreadsheets I)

## INFO 1213 - Database Fundamentals $\checkmark \bigcirc$

4.5-0.0-4.5

Prerequisite: (1) INFO 1001
Students are introduced to database operations using Microsoft Access. This course focuses on database concepts; creating and editing tables, queries, forms and reports; adding, editing, and filtering records; creating and editing one-tomany relationships; and importing and exporting data. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1214 - Business Presentations $-\odot$ <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1001
Students learn to present data in a quick, concise, and effective manner using Microsoft PowerPoint presentation software. Students create and format text slides; insert images, video and audio; create custom themes and slide masters; and prepare a full multi-slide presentation. The mid-term and final projects require students to create and present a slideshow to the class. This course also explores professional presentation skills such as behavior, dress, and speaking manner. Students must receive a C or better in this course to enroll in the Office Professional Capstone course.

## INFO 1215 - Document Processing $\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: (3) INFO 1008; INFO 1013; and INFO 1211
The course provides thorough instruction in using word processing software to prepare a variety of business documents. It emphasizes planning and designing the layout of the document, correct formatting, proper spelling, grammar and punctuation, and increasing typing speed and accuracy.

## INFO 1219 - Professional Practices $-\mathcal{O}$

4.5-0.0-4.5

Prerequisite: (2) INFO 1001 and ENGL 1010
This course provides 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. Topics include administrative professional careers, professional image and office behavior, employer expectations, employee responsibilities and skills, personal communication skills, planning meetings and effective note-taking skills, understanding office financials, coordinating travel, personal organization, problem-solving and decision-making techniques, stress management control, and leadership skills and strategies.

## INFO 1240 - Integrated Applications for IT Support-B <br> 4.5-0.0-4.5

Prerequisite: (2) INFO 1002 and INFO 1110
This course builds upon application skills covered in courses INFO 1001 and INFO 1002 to enhance performance in a support environment. Built on problem-
based case learning, students learn the problem resolution process while exploring additional file formats, data structures, and integration between applications. Information Technology Infrastructure Library concepts are also explored. (Formerly Integrated Applications for the Help Desk)

## INFO 1311 - Web Page Creation $\mathcal{B}$, © <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1002 or DIMA 1120
This course teaches students how to create basic websites using HTML and CSS specifications. It covers creating HTML pages that include links, images, tables, multimedia, and forms and discusses additional advanced features such as implementing Web interactivity using JavaScript and Java applets. Students use CSS to control the format and layout of Web pages and learn about the advantages of using CSS when styling Web content. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1314 - Photoshop - B

4.5-0.0-4.5

Prerequisite: (1) INFO 1311
Students learn to create, modify, and optimize graphics for use on websites. They create banners, buttons, background images, and advertisements. The course uses Photoshop tools to create vector graphics, edit bitmap graphics, work with layers, create image rollovers, slice images, create image maps, and export graphics. It also covers animated GIF images.

## INFO 1315 - Interface Design•B

4.5-0.0-4.5

Prerequisite: (1) INFO 1311
This course serves as an introduction to usability principles and user-centered interface design. Students learn the fundamentals of design and gain practical experience with visual layout. Students explore typography and color theory with regard to their use on the Web, on computer screens, and in a variety of commercial settings. Students also learn how to increase accessibility to alternate browsers, operating systems, platforms, and to those with disabilities using responsive design.

## INFO 1316 - Dreamweaver -

## 4.5-0.0-4.5

Prerequisite: (2) INFO 1314 and INFO 1315
This course presents the use of Dreamweaver to create, edit, and manage welldesigned websites. Students learn how to use the software to incorporate the following HTML elements: tables, CSS, multimedia, forms, and other advanced Dreamweaver features.

## INFO 1317 - WordPress Web Editor-B

4.5-0.0-4.5

## Prerequisite: (1) INFO 1211 or INFO 1311

Students learn how to create, manage, and publish websites using the WordPress Content Management System. Students plan and create websites, work with themes, format text, and use CSS. They also learn how to work with images, create links, add multimedia content, customize widgets, install plugins, apply interactive behaviors, create forms, and optimize a website for publishing. (Formerly Microsoft Web Editor)

## INFO 1319 - Flash - O

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1314
Flash is the solution for producing high-impact, vector-based animation and interactivity for websites. Students learn how to make websites that are fun, attractive, and interactive. They create vector graphics, work with timelines, add visual effects, animate shapes and symbols, import images and sounds, work with video, create interactive buttons, and more.

## INFO 1320 - Internet Commerce

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1311
This course covers emerging online technologies and trends and their influence on the electronic commerce marketplace. Students learn various concepts, vocabulary, and procedures associated with all aspects of commerce and the Internet. Topics covered include the development of the Internet and commerce, Internet business strategies and revenue models, legal and ethical issues, features of websites and the tools used to build an e-commerce planning website, marketing issues, online payment options, security issues, and e-commerce planning strategies. Students apply these concepts by developing a working prototype for an electronic commerce website.

INFO 1401 - Introduction to Data Center Management $\mathcal{B}$
4.5-0.0-4.5

Prerequisite: (1) INFO 1023
This course introduces all aspects of a data center and its physical infrastructure. Students learn about data center design, support, management, and maintenance while working in a server environment. The course includes daily operations of a data center, which include monitoring power requirements and safety regulations.

## INFO 1411 - IT Troubleshooting and Recovery $\bigcirc$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1401
This course teaches students how to identify and follow best practices for managing the facility infrastructure and information systems found in an enterprise Data Center Environment. The course focuses on enterprise data center components and systems, management and monitoring tools, and techniques used to create a fault-tolerant redundant configuration that meets the requirements of a company's disaster management introduced by concepts like DCIM, green technology, cloud based computing, virtualization, and big data.

## INFO 1421 - Cloud Infrastructure and Services Monitoring <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1002
This course examines cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. It provides the required technology essentials across all domains - including server, storage, networking, applications, and databases - to help develop a strong understanding of virtualization and cloud computing technologies. (Formerly Virtualization, Remote Access, and Monitoring)

## INFO 1431 - Data Center Physical Design $-\mathcal{O}$

4.5-0.0-4.5

Prerequisite: (1) INFO 1401
This course explores the information system and facility infrastructure elements found within the physical data center. Topics include data center architecture, physical space and structures, and facility infrastructure design as well as the basics of physical infrastructure, including racking and cabling concepts, power management and distribution, heating ventilation and air conditioning, data storage technologies and communications components. Students also learn about data center standards and certifications as well as design architecture for green and cloud-based data centers. This course is designed for potential data center personnel and server support personnel.

## INFO 1515 - Programming for Robotics

3.0-4.5-4.5

Prerequisite: (1) INFO 1003
This course enables students to design, write, and deploy beginning-level software for robots that interact directly with the real world. Topics include sensing and control functionality. Students learn how to program robots for decision-making and reasoning through hands-on activities using the Lego Mindstorms NXT and the VEX robot. (Formerly Programming for Robotics I)

## INFO 1521 - Java Programming I-B

4.5-0.0-4.5

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 - $\mathrm{C}++$ Programming $1-0$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course introduces the C++ programming language. It emphasizes problemsolving using structured design and covers various features of the C++ language, such as conditions, logical expressions, selection control structures, looping, functions, and variable scope. Students use modular programming techniques to solve a variety of problems.

## INFO 1523 - Visual Basic.NET IV <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course introduces programming the graphical user interface using Visual Basic.NET. Students use Visual Basic.NET to develop applications with graphical windows, create applications that work with databases, create Web applications, and create applications that display graphics. It allows developers to create applications in a relatively short period of time. This course emphasizes gaining an understanding of proper design, placement of controls, and coding of the GUI.

## INFO 1524 - COBOL I

## 5.0-0.0-5.0

Prerequisite: (1) INFO 1003
Students gain experience using programming techniques with the COBOL language. Students design, program, debug, and test business-oriented problems.

## INFO 1525 - IBM i RPG Programming I

4.5-0.0-4.5

Prerequisite: (2) INFO 1003 and INFO 1112
This course introduces students to IBM i RPG. Students learn how to use the RPG specifications to create programs using structured programming techniques. They code, compile, and test RPG programs that process database files and produce reports. This course also covers any new topics or technology in the IBM i area.

## INFO 1526 - C\# (C-Sharp) Programming I-B <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course introduces programming the graphical user interface and console applications of Microsoft Visual C\# (C-Sharp) programming using the current Visual Studio.NET environment. Students use Visual C\# programming to develop a variety of applications with graphical client interfaces and use console programs to perform programming tasks. The course emphasizes proper windows design, placement of controls, and proper coding of the Visual C\# programming language for business-type projects. Students who enroll in this course must have a thorough knowledge of the Windows environment. (Formerly Visual C\# Programming I)

## INFO 1527 - Ruby Programming -3

4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course introduces the Ruby programming language. Through guided learning activities and project-oriented assignments, students advance through the dynamic and expressive grammar of the language and apply these basic concepts to develop pragmatic online and batch applications involving file systems, file I/O, and databases.

## INFO 1529 - PHP Programming I-B

4.5-0.0-4.5

Prerequisite: (1) INFO 1003
This course introduces students to PHP programming. Emphasis is placed on gaining the proper design and coding in the scripting language environment. Topics include installation and configuration of PHP, Apache, and MySQL. Also covered are the basic building blocks of PHP, flow of control, functions, using arrays, and working with objects.

## INFO 1531 - Java Programming II $\bigoplus$

4.5-0.0-4.5

Prerequisite: (1) INFO 1521
This course is for students 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-B

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1522
This course covers 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-B

4.5-0.0-4.5

Prerequisite: (1) INFO 1523
This course places additional emphasis on gaining an understanding of proper design, placement of controls, and coding of the GUI. It covers advanced topics such as database access and management, object-oriented programming using class structures, exception handling, and inheritance.
INFO 1534 - COBOL II
5.0-0.0-5.0

Prerequisite: (1) INFO 1524
Students expand their knowledge of COBOL with advanced techniques. Topics covered include sorting, sequential file updating, indexed file processing, VSAM files, subprograms, relational databases, and embedded SQL.

## INFO 1536 - C\# (C-Sharp) Programming II- <br> 4.5-0.0-4.5 <br> Prerequisite: (1) INFO 1526

This course includes more advanced topics such as XML, database, text and binary file access, data structures, sets, and user interfaces. (Formerly Visual C\# Programming II)

## INFO 1539 - PHP Programming II-®

4.5-0.0-4.5

Prerequisite: (1) INFO 1529
This course focuses on the design and coding of the PHP environment. Topics include advanced areas such as database access and management, working with files, forms, and SQL, and the interaction with MySQL and PHP.

## INFO 1620 - Introduction to Database Design•๒, © <br> 4.5-0.0-4.5 <br> Prerequisite: (1) INFO 1003

This course is an introduction to database design, implementation, and management. It covers the basics of database design and manipulation. Topics include relationships, database normalization, constraints, data modeling, multiuser database architectures, and exploration of various DBMS software products. Students learn how to design and manipulate the database in order to maintain and present data that is accurate, meaningful, and supportive to a business environment. NOTE: Students must receive a C or better in this course to enroll in a capstone course.

## INFO 1805 - A+ Certified Professional <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1110
Students gain a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting computer hardware and software. This course maps fully to CompTIA's latest A+ 220-801 and 220-802 exam objectives.

## INFO 1811 - Information Storage and Management

4.5-0.0-4.5

Prerequisite: None
EMC Information Storage and Management is the only course of its kind to fill the knowledge gap in understanding varied components of modern information storage infrastructure, including virtual environments. It provides comprehensive learning of storage technology, which enables students to make more informed decisions in an increasingly complex IT environment. ISM builds a strong understanding of underlying storage technologies and prepares students to learn advanced concepts, technologies, and products. Students learn about the architectures, features, and benefits of intelligent storage systems; storage networking technologies, such as FC-SAN, IP-SAN, NAS, object-based, and unified storage; business continuity solutions, such as backup, replication, and archive; the increasingly critical area of information security; and the emerging field of cloud computing. This unique, open course focuses on concepts and principles, which are further illustrated and reinforced with EMC examples.

## INFO 1831 - VMware vSphere

## 4.5-0.0-4.5

Prerequisite: (2) INFO 1811 and INFO 2142; or instructor approval
Students gain hands-on experience in installing, configuring, and managing a VMware vSphere, which consists of VMware ESXi and VMware vCenter Server. The course is based on ESXi 5.5 and vCenter Server 5.5. At the end of the course, students gain an understanding of the functionality in vSphere and cover topics such as virtualization, vCenter server, virtual networks and storage, data protection, access and authentication control, resource management and monitoring, high availability and fault tolerance, scalability, patch management, and V Mware components.

## INFO 1955 - How to Build Almost Anything <br> \section*{4.0-1.5-4.5}

Prerequisite: None
This course covers the safe use of hand and power tools. Focus is on the proper setup and use of tools. In this class, students learn basic concepts of prototype construction using tools and materials found in the FABLAB laboratory. Students take part in a laboratory project involving all stationary and power tools. It is recommended that students know the basics of how to use a personal computer or have taken INFO 1001. Material costs for projects are additional.

## INFO 1962 - How to Build an Electric Guitar

4.0-1.5-4.5

Prerequisite: None
In this class, students learn the concepts and topics of mechanical engineering, electronics, CAD design, manufacturing, chemistry, metrology, math, and physics by examining what is responsible for producing music with electronic stringed
instruments while building, testing, and playing their own electric guitar. Students choose their guitar body, construct the neck, assemble their own guitars, solder all electronics, tune them using a chromatic tuner, and use them to play a simple song. It is recommended that students know the basics of how to use a personal computer or have taken INFO 1001. Material costs for project are additional.

## INFO 2122 - UNIX Scripting ${ }^{-1}$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1111
This course is an introduction to writing shell scripts using Bourne again shell. Students gain hands-on experience with creating and running Bash shell scripts and functions. Bash script techniques include sequential branding and looping instructions, command substitution, and I/O redirection. Students learn to create new scripts as well as modify existing scripts. (Formerly UNIX Scripting I)

## INFO 2135 - Network Infrastructure $\triangleleft$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 1023
This course is for support professionals who need to know how to install, configure, maintain, and troubleshoot a Microsoft Windows Server 2012r2 environment. It gives new and experienced users alike the opportunity for in-depth study of the core networking technologies. The approach is to work through hands-on labs done on servers in a virtual environment provided to the students. The focus on network infrastructure involves, but is not limited to, configuring DNS, DHCP, routing, NAT, VPNs, and a basic understanding of TCP/IP v4 and v6. NOTE: This course substitutes for INFO 2130.

## INFO 2142 - Windows Active Directory-

## 4.5-0.0-4.5

Prerequisite: (1) INFO 2135
This Active Directory server administration course introduces the Microsoft Windows Server 2012 r 2 Active Directory and prepares students with the skills and knowledge necessary to implement, manage, maintain, and provision services and infrastructure in a Windows Server 2012r2 Active Directory environment.

## INFO 2145 - Windows Server Administration $-\bigotimes$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 2142
Microsoft Windows server administrators manage the infrastructure, Web, and IT application servers. This course introduces server administration using Microsoft Windows Server 2012r2, which includes responsibility for the operations and day-to-day management of an infrastructure of servers for a small or enterprise organization. It exposes students to scripts and batch files and remote administration. Other topics include managing the server operating system, file, and directory services; software distribution and updates; profiling and monitoring assigned servers; and troubleshooting.

## INFO 2242 - Business Office Collaboration Technology-®

4.5-0.0-4.5

Prerequisite: (4) INFO 1211, INFO 1212, INFO 1213, and INFO 1214
This course explores online applications used for collaboration in business environments to share documents and information. Students use the features of Microsoft SharePoint to add, manage, edit, and share Microsoft Office files in document libraries. Students also add and manage announcements, calendar events, and project tasks in Microsoft SharePoint lists for office communications and project coordination. In addition, students learn to convert alternate file formats, including PDF documents, to MS office formats. Special topics explore the use of Web conferencing, mobile and table devices, virtual offices, and cloudbased file sharing in business offices and document security issues. Students should have extensive experience using MS Office software.

## INFO 2260 - Workplace Technologies $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (1) INFO 1211
This course explores the newest technologies found in today's workplace and is written for office professionals and students seeking degrees outside of information technology. Topics include current operating systems, computer system parts, evaluating computer systems, applications and their uses, networking, digital lifestyles, and security. (Formerly Network Applications and Support in the Workplace)

## INFO 2261 - Software Applications Support $\bullet B$

4.5-0.0-4.5

Prerequisite: (2) INFO 1120 and INFO 2351
Students install common stand-alone and custom software applications concentrating on interoperability and meeting specific criteria. Location of software modules 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
4.5-0.0-4.5

Prerequisite: (1) INFO 1311
This course introduces Internet scripting concepts using JavaScript. Students explore current and evolving trends in Internet scripting and examine the use of popular scripting libraries such as jQuery. Students connect to websites to send and retrieve data using XML and JavaScript Object Notation. (Formerly Internet Scripting and Databases)

## INFO 2351 - Introduction to XML- - , ©

4.5-0.0-4.5

Prerequisite: (1) INFO 1311
This course teaches students how to retrieve and manage data while constructing well-formed and valid XML documents. Current W3C recommendations for the use of DTD, schemas, XSL, XSLT, and XSL-FO are also explored to demonstrate the multi-functional use of XML.

## INFO 2362 - Building Secure Environments $\checkmark$ <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1023
This course examines a variety of communication protocols, the client/server applications that use them, and their vulnerabilities. Students explore methods to mitigate vulnerabilities of Internet/Intranet applications while maintaining Web servers and workstations usability. Discussion centers on best practices and students use a variety of methods to build, test, and defend all computers in the enterprise environment. (Formerly Web and Server Applications Security)

## INFO 2401 - Applied Data Center Management

4.5-0.0-4.5

Prerequisite: (2) INFO 1421 and INFO 1431
Using a problem-based learning or CASE student approach, students define project requirements, define project work breakdown structure, research project issues and risks, and design 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 2439 - Mobile Application Development

4.5-0.0-4.5

Prerequisite: (1) INFO 2340
This course introduces the basic concepts of mobile Web and hybrid native application development for small-form factor devices using HTML 5, CSS, and JavaScript. Students create mobile applications for mobile platforms, such as Apple iOS (iPad and iPhone) and Google Android devices. The Eclipse and Xcode SDK platforms are used to examine best practices for integrating data and multimedia elements in mobile Web applications designed with Adobe
Dreamweaver. Students are introduced to various cloud database services and instructed on best practices for leveraging these services within their mobile development programming interface. Additionally, students learn the fundamentals for distributing mobile applications in various mobile application marketplaces.

## INFO 2521 - Intel Assembly Language I <br> 4.5-0.0-4.5

Prerequisite: (1) INFO 1522
Students develop 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. Students use Intel x86 Assembly Language to develop simple applications.

## INFO 2531 - Intel Assembly Language II

## 4.5-0.0-4.5

Prerequisite: (1) INFO 2521
This course covers 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++-B

4.5-0.0-4.5

Prerequisite: (1) INFO 1532
This course continues the study and development of programming in C language. Students learn to write programs in both languages and to program between C and C++ to solve a variety of business applications. Students are required to program, debug, and test specified business applications in C and $\mathrm{C}++$ to include but not be limited to data structures, such as linked lists, stacks, and queues, and searching and sorting algorithms.

## INFO 2538 - Systems Analysis and Design-

4.5-0.0-4.5

Prerequisite: (1) INFO 1521; INFO 1522; INFO 1523; or INFO 1524
Students take a hands-on approach to system analysis and design of information systems. They examine and use formal techniques for developing a start-to-finish project. Tasks include designing the best approach to problem identification; analysis of possible solutions using information-gathering techniques; and implementation using business rules, data manipulation, data storage, and data retrieval. Students conduct research, write, analyze, and create professional reports and documentation to support analysis and design.

## INFO 2621 - IBM i DB2 Database Management

4.5-0.0-4.5

Prerequisite: (2) INFO 1003 and INFO 1112
This course introduces the concepts of the IBM i DB2 database system. Students learn to define, create, and manage database files. The course presents an introduction to data modeling and design and also covers any new topics or technology in the IBM i area. (Formerly IBM i DB2 Database Management I)

## INFO 2630 - Structured Query Language (SQL) B

4.5-0.0-4.5

Prerequisite: (1) INFO 1620
Students gain the skills needed to access and manipulate data in a relational database management system. The course covers basic- through advanced-level SQL commands and explores various DBMS SQL environments.

## INFO 2632 - Oracle SQL-B

4.5-0.0-4.5

Prerequisite: (1) INFO 1620
Students gain the skills needed to access and manipulate data in the Oracle database management system. The course covers basic- through advanced-level SQL commands. It is for students 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 - B

4.5-0.0-4.5

Prerequisite: (1) INFO 2630
This course provides a foundation in programming in the MySQL database environment. Students create stored program code, triggers, and functions; use built-in MySQL functions; and learn to optimize SQL statements and stored programs.

## INFO 2640 - Oracle PLISQL Programming - ©

4.5-0.0-4.5

Prerequisite: (1) INFO 2630
This course introduces the PL/SQL procedural programming language used to interact with an Oracle database and to support applications in a business environment. Students create blocks of code using scalar and composite variables and cursors; create procedures using control and loop structures; learn exception-handling techniques; and create functions, packages, and triggers.

## INFO 2641 - SQL Server Design and Implementation $ß$

## 4.5-0.0-4.5

Prerequisite: (1) INFO 2630
This course introduces 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. The course explores various SQL server tools.

## INFO 2651 - Oracle Database Administration <br> 4.5-0.0-4.5 <br> Prerequisite: (1) INFO 2640

This course provides the knowledge and basic skills needed to set up, maintain, and troubleshoot an Oracle database. It covers the Oracle architecture and its main components. Students learn to start up and shut down an Oracle database; create a database; and manage storage, users, and resources. Students participate in hands-on activities to reinforce the concepts learned.

## INFO 2740 - Oracle Web Application Development $\checkmark$ ©

## 4.5-0.0-4.5

Prerequisite: (1) INFO 2640
This course provides advanced skills in Oracle PL/SQL programming and Web application development. Students use PL/SQL and explore various other development strategies to build Web applications that interact with an Oracle database.

## INFO 2750 - Introduction to Web Application Development- -8 <br> \section*{4.5-0.0-4.5}

Prerequisite: (2) INFO 1003 and INFO 2340
This course examines installing, configuring, and maintaining a Web application given a set of client requirements. Students explore proper techniques to configure the Web application with an emphasis on performance and security.

## INFO 2805 - Network and Information Security Basics $-\mathcal{\theta}$

4.5-0.0-4.5

Prerequisite: None
This course is a survey of network and information security. Topics include threat assessment, risk management, establishing and managing network security policy, user training, security models, objectives, architectures, and the investigative process. It covers information security topics, such as constitutional issues, applicable laws, and right and rules of evidence. Students also discuss confidentiality, integrity, availability, accountability, and auditing.

## INFO 2806 - Network Attacks, Intrusions, and Penetration Testing $B$

4.5-0.0-4.5

Prerequisite: None
This course covers attack and intrusion methods and how to defend against them. By studying network security from the point of view of the cracker and hacker, students get hands-on exposure to penetration testing and intrusion detection systems as well as methods used to circumvent systems, malicious code and its impact on systems, and defense against attacks.

## INFO 2808 - Boundary Protection- -3

## 4.5-0.0-4.5

Prerequisite: None
This course introduces the various methodologies for defending a network. Students focus on the concepts of firewalls, including packet filtering, proxy firewalls, application gateways, circuit gateways, and stateful inspection; however, firewalls are most effective when backed by thoughtful security planning, welldesigned security policies, and integrated support from anti-virus software, intrusion detection systems, and related tools. This course explores firewalls in the context of these critical elements, providing an overview that focuses on both managerial and technical aspects of security.

## INFO 2809 - Information Systems, Forensics, and Legal Topics - B

4.5-0.0-4.5

Prerequisite: None
This course presents computer forensics concepts, tools, and data analysis. Students explore civil and common law issues that apply to information systems and gain practical experience in evidence detection and preservation as well as the concepts of establishing communications with company leadership and investigative agencies.

## INFO 2810 - Security Capstone-B

## 4.5-0.0-4.5

Prerequisite: (1) Instructor approval
This course provides realistic, hands-on, scenario-based environments in which to combine and implement concepts and tools covered in previous courses. Students conduct risk analyses and threat assessments, and they complete security plans that include auditing, monitoring, incident response, forensics, and penetration testing. NOTE: This capstone course for the Network Security diploma should be taken last as it encompasses the concepts, processes, and experience gained from the previous security courses. Work experience can be evaluated to meet course requirements.

## INFO 2900 - Special Topics in Information Technology

## Variable

Prerequisite: None
This course permits instruction in special content areas not included in other courses in the Information Technology program.

## INFO 2940 - Database and Web Programming Capstone $-\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: (1) Instructor approval and a grade of $C$ or better in courses required by the student's degree major or the student's GIT program plan.

This course gives students the opportunity to integrate the skills and knowledge acquired throughout the information technology curriculum. Students develop, manage, and execute a programming project from conception to delivery for production. This is the final course for the Programming for Database and Web option. NOTE: This course should be taken during the final quarter of the program.

## INFO 2942 - Network Support Capstone - B <br> \section*{4.5-0.0-4.5}

Prerequisite: (1) Instructor approval and a grade of $C$ or better in courses required by the student's degree major or the student's GIT program plan.
This course simulates common issues and situations found in a helpdesk or IT support environment. Students extract data from common user interfaces, such as Web, email, phone and in-person contact; evaluate possible actions; and follow through to resolution. The course includes extensive use of knowledge and incident management software and discusses appropriate methods by which to deal with customers professionally while acquiring data needed for resolution or elevation to upper-level IT support staff. (Formerly Networking Capstone)

## INFO 2944 - Web Development Capstone $-\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: (1) Instructor approval and a grade of $C$ or better in courses required by the student's degree major or the student's GIT program plan
This course gives students the opportunity to integrate the skills and knowledge acquired throughout the Web curriculum. Students develop, manage, and execute a Web project from concept to completion. NOTE: This course should be taken during the final quarter of the program.

## INFO 2947 - Embedded Systems Capstone <br> 4.5-0.0-4.5

Prerequisite: (1) Instructor approval and a grade of $C$ or better in courses required by the student's degree major or the student's GIT program plan.
As members of a team in relation to a business problem or strategy, students synthesize knowledge from previous courses to design, build, test, and demonstrate a comprehensive embedded system. Students explore and implement problem-solving techniques and approaches that lead to solutions for hardware and software problems in a simulated work environment. The course emphasizes collaborative skills, such as group dynamics, negotiation, meeting techniques, and tools. NOTE: Students should have completed all of the general education and major requirements before enrolling in this, the final course for the Embedded Systems option.

## INFO 2948 - Office Professional Capstone -3

5.0-0.0-5.0

Prerequisite: (1) Instructor approval
This course allows students to apply all skills and knowledge gained from previous office technology courses. Students focus on advanced-level usage of the Microsoft Office Suite to work independently and in teams on tasks common in a business environment. Students prioritize and manage project tasks; research ideas; and find information to make informed decisions, problem solve, and develop critical thinking skills. Students also practice their presentation and leadership skills by creating and delivering presentations. Students must have extensive MS Office experience and should take this course toward the end of their program. (Course formerly INFO 2240)

## INFO 2980-Office Technology Practicum

0.0-6.0-2.0

Prerequisite: (2) INFO 2948 and instructor approval
Students use the skills and knowledge gained through the program to complete hands-on, on-the-job projects in a business environment. Emphasis is placed on essential skills, professionalism, and accuracy as well as working as a member of an office team. Based on state guidelines, students must complete 40 hours of work for each credit hour in the course. NOTE: Previous on-the-job training or past or present work experience may not be applied to fulfill the requirements of this course.

## INFO 2981 - Internship

## Variable

Prerequisite: (1) Instructor approval
The internship provides students with the opportunity to apply their knowledge, learn new techniques, and get on-the-job training at approved work sites. Interested students must contact their faculty advisors to develop internships to meet their academic and career goals. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## INFO 2984 - INFO Student Assistant

## Variable

Prerequisite: (1) Instructor approval
This course provides practical experience for students majoring in one of the Information Technology programs. Students apply the knowledge and skills gained in previous courses to assist other students in a lab setting. Tasks assigned are based on the students' majors of study.

## INFO 2990 - Data Center Management Internship - ©

4.5-0.0-4.5

Prerequisite: (1) INFO 2401 or instructor approval
This internship course provides students with the opportunity to apply their knowledge, learn new techniques, and get hands-on experience managing a data center. Students work in the Information Technology Data Center at the Fremont Area Center in addition to accessing the data center remotely at times during the quarter. An instructor directs the students. NOTE: This course should be taken during the final quarter of the program.

## INSU - Insurance

## INSU 1000 - Principles of Health and Life Insurance- -3 <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course is a comprehensive survey of the technical and socioeconomic aspects of the life and health insurance business and is registered with the Nebraska Department of Insurance as satisfying pre-licensing standards. It includes coverage, marketing, underwriting, pricing, funding alternatives, contracts, claims, program design concepts, and administrative systems and procedures. NOTE: Lab fee covers course completion and documentation fees required by the Nebraska Department of Insurance. Students are required to schedule their own licensure exams and satisfy other licensing requirements.

## INSU 1100 - Principles of Property and Casualty Insurance $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course is an introduction to the field of property and casualty insurance and is registered with the Nebraska Department of Insurance as satisfying prelicensing standards. The needs of individuals or organizations for various categories of protection are discussed and the course covers fire, accident, theft, property damage, and liability insurance as well as the legal environment of insurance products. The course also introduces the basic concepts of product design, underwriting, pricing, marketing, and claim administration. NOTE: Lab fee covers course completion and documentation fees required by Nebraska Department of Insurance. Students are required to schedule their own licensure exams and satisfy other licensing requirements. (Cross-listed as FINA 1100)

## INSU 2421 - Insurance Law

4.5-0.0-4.5

Prerequisite: None
This course is a study of laws and state regulation of insurance. Topics include 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 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.

## INTD - Interior Design

## INTD 1100 - Illustration Techniques for Interiors

2.0-3.0-3.0

Prerequisite: None
This course teaches basic skills in using equipment and interpreting symbols and language used in illustrating interiors and furniture in plan, elevation, and 3-D drawing.

## INTD 1210 - Foundations for Interior Design

4.5-0.0-4.5

Prerequisite: (1) INTD 1100 (may be taken concurrently with INTD 1210)
This course is an introduction to basic design fundamentals of the interior environment. Areas of emphasis include the study and application of principles and elements of design, materials and finishes, furnishings, building systems,
lighting, sustainable design, and space planning. Projects are assigned to complete using a variety of techniques. (Formerly Interior Design I)

## INTD 1220 - Residential Design

4.5-0.0-4.5

Prerequisite: (1) INTD 1210
This course is a study of residential interior design with emphasis on circulation, social, private, and work spaces. Analysis and application of space planning, codes, lighting, electrical and mechanical, fixtures, ergonomics, materials and finishes, and basic construction techniques are demonstrated through portfolioready items. (Formerly Interior Design II)

INTD 1230 - Kitchen and Bath Design
2.0-3.0-3.0

Prerequisite: (1) INTD 1220
This course provides an introduction to kitchen and bath design with emphasis on the application of NKBA guidelines. Students are exposed to planning guidelines, fixtures and appliances, plumbing, electrical and lighting basics, universal and ergonomic design, cabinetry, and materials and finishes appropriate to kitchen and bath design. Students demonstrate principles learned through conceptual studies and portfolio-ready projects. (Formerly Interior Design III)

## INTD 1260 - Color Theory

4.0-1.5-4.5

Prerequisite: None
This course is a study of color principles and theories. It explores color relationships and applications to various interior environments through class projects. Projects use a variety of techniques to develop solutions to assigned problems.

## INTD 1310 - Fundamentals of Textiles

4.5-0.0-4.5

Prerequisite: None
This course features an introductory study of the field of textiles. It includes the knowledge and understanding of fibers, yarn, fabric construction, finishes, and color and design techniques used to create a textile product. The course emphasizes identifying the characteristics of each component and how they affect the possibilities and limitations of the product when used to address a given design problem.

## INTD 1320 - Interior Finishes and Materials

4.5-0.0-4.5

Prerequisite: (1) INTD 1310
This course applies knowledge and understanding of interior materials, finishes, and products through the use of sampling techniques. The goal is to develop hands-on skills in identifying, selecting, and specifying materials and finishes for functional and aesthetic residential and commercial interiors.

## INTD 1410 - History of Architecture and Interiors

4.0-0.0-4.5

Prerequisite: None
This course is a study of architecture, ornament, and interior styles from antiquity through modern time. Students become familiar with the various styles, their basic respective characteristics, and their relationship to interior environments.

## INTD 1420 - History of Furniture

4.5-0.0-4.5

Prerequisite: None
This course is a study of furniture styles from antiquity through modern times. Students become familiar with various historical movements or periods in furniture design and learn to recognize characteristics of each style.

## INTD 2100 - Room Rendering

3.0-4.5-4.5

Prerequisite: (1) INTD 1230
This course explores the use and techniques of free-hand sketching utilizing basic drawing skills, principles of conceptual sketching, value studies, and evaluation of various art media. It reviews one- and two-point perspective drawing techniques and explores the subject of computer-generated 3-D programs. Students create portfolio items by drafting, drawing, and selected art media and techniques.
INTD 2250 - Commercial Design
3.0-3.0-4.0

Prerequisite: (1) INTD 1230
This course is an introduction to the study of commercial interior design. Students consider special needs and specifications for commercial interiors. They demonstrate proficiency through the development of individual portfolio items.

## INTD 2520 - Professional Practice

## $3.0-0.0-3.0$

Prerequisite: (1) INTD 1320
This course includes the study of the responsibilities and duties of the professional interior designer as related to the business aspect of interior design. Upon completion of this course, students are familiar with the procedures of establishing a business, legal responsibilities, ethics and conduct, marketing, trade sources, contracts, and the project management process.

## INTD 2900 - Special Topics in Interior Design <br> Variable

Prerequisite: (1) Completion of 30.0 or more hours in the Interior Design program This course permits instruction in or independent study of special content areas not included in other courses in the Interior Design program.

## INTD 2940 - Interior Design Capstone

2.0-3.0-3.0

Prerequisite: (1) INTD 2250
This capstone course is a review of fundamental knowledge learned through previous courses in the Interior Design program. Development, refinement, and critique of portfolio elements into a presentation-ready package are stressed.
This course emphasizes resume and interview skills for entry-level interior design work. Students also refine interior design skills through more specialized and detailed space planning projects based on the NCIDQ exam process. (Formerly Interior Design IV)

## INTD 2981 - Internship

0.0-120.0-3.0

Prerequisite: (1) Completion of 30.0 or more hours in the Interior Design program
Students are given the opportunity to observe and/or take part in the entire design, sales, and business follow-through involved in a design job. They also gain product knowledge, observe proper application to design, and gain experience working with people. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## JAPN - Japanese

JAPN 1010 - Beginning Japanese I
7.5-0.0-7.5

Prerequisite: None
This course is the first of two sequential quarter courses that comprise a traditional first-year college Japanese course. Students begin to learn basic skills in pronunciation, speaking, listening, reading, writing, vocabulary, and comprehension.

## JAPN 1020 - Beginning Japanese II

7.5-0.0-7.5

Prerequisite: (1) JAPN 1010 or its equivalent
This course is the second of two sequential quarter courses that comprise a traditional first-year college Japanese course. Students continue to learn basic skills in pronunciation, speaking, listening, reading, writing vocabulary, and comprehension.

## JAPN 2010 - Intermediate Japanese I

4.5-0.0-4.5

Prerequisite: (1) JAPN 1020 or its equivalent
This course is the first of four sequential quarter courses that comprise a traditional second-year college Japanese course. Students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

## JAPN 2020 - Intermediate Japanese II <br> 4.5-0.0-4.5

Prerequisite: (1) JAPN 2010 or its equivalent
This course is the second of four sequential quarter courses that comprise a traditional second-year college Japanese course. Students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

## JAPN 2030 - Intermediate Japanese III

4.5-0.0-4.5

Prerequisite: (1) JAPN 2020 or its equivalent
This course is the third of four sequential quarter courses that comprise a traditional second-year college Japanese course. Students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

## JAPN 2040 - Intermediate Japanese IV

4.5-0.0-4.5

Prerequisite: (1) JAPN 2030 or its equivalent
This course is the final of four sequential quarter courses that comprise a traditional second-year college Japanese course. Students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

## JAPN 2900 - Special Topics in Japanese <br> Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other Japanese courses. Topics may include advanced grammar, intensive conversation and pronunciation, business practices, culture, and customs.

## LANG - Languages and Language Interpretation

## LANG 1110 - Introduction to Language Interpretation $B$

## 4.5-0.0-4.5

Prerequisite: None
The first in a series of online interpreter training courses, this course provides a general introduction to the profession of oral language interpreting. Topics include communication theory, language register, modes of interpretation, and the multicultural workplace. Through interactive exercises, students gain an understanding of the profession to support them in a more specialized study of language interpreting. Bilingual skills are not needed for this introductory course.

## LANG 1120 - Interpreting Ethics $\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
The second in a series of online classes designed to prepare individuals to interpret in a variety of settings, this course provides a thorough introduction to the various codes of ethics that exist for interpreters. Students explore ethical standards in community, medical, and legal settings and develop strategies to put ethical policies into practice in the workplace. Students do not have to be bilingual in order to take this introductory course.

## LANG 1130 - Emphasis Seminar- ${ }^{-1}$

4.5-0.0-4.5

Prerequisite: (2) Fluency in both English and another language
Good for the experienced and new interpreter alike, this course gives students a taste of work in each area of interpreting emphasis: community, legal, and medical. Students practice consecutive and simultaneous interpretation and sight translation with typical texts and oral exchanges from each area of emphasis and discuss the benefits of working in each area.

## LANG 2110 - Fundamentals of Community Interpretation $B$

## 4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students gain an understanding of the community services typically available in the United States and the role of the interpreter in each setting. Students study and practice basic techniques and modes of interpretation with relevant texts and oral passages by using monolingual and bilingual dictionaries, developing personalized glossaries, and familiarizing themselves with equipment to help improve their interpretation skills.

## LANG 2120 - Community Interpretation - Terminology and Sight Translation- 3 <br> 4.5-0.0-4.5 <br> Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130

Students explore the lexicon of a variety of settings and learn high-frequency terminology used in each. This course involves extensive practice in sight translation skills.

## LANG 2130 - Consecutive Interpretation - Community

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students practice their consecutive interpretation skills in situations common in community settings. They apply useful note-taking techniques and perform memory-building exercises. Self-evaluation of practice activities is an essential element.

## LANG 2140 - Simultaneous Interpretation - Community

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students begin this course with training techniques, including shadowing, dual tasking, and paraphrasing. They progress to simultaneous interpretation of oral exchanges common in community settings. Students develop personalized glossaries of relevant terminology and evaluate their performance throughout the course.

## LANG 2210 - Fundamentals of Legal Interpretation -3 <br> 4.5-0.0-4.5

Prerequisite: (3) LANG 1110, LANG 1120, and LANG 1130
Students gain an understanding of the U.S. judicial system and the protocol common in various legal settings. Students study and practice basic techniques and modes of interpretation with relevant texts and oral passages by using monolingual and bilingual dictionaries, developing personalized glossaries, and familiarizing themselves with equipment to help improve their interpretation skills.

## LANG 2220 - Legal Terminology and Sight Translation - ©

## 4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students explore the origins of legal terminology and learn high-frequency terminology used in civil and criminal proceedings. This course involves extensive practice in sight translation of various types of course documents.

## LANG 2230 - Consecutive Interpretation - Legal

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students practice their consecutive interpretation skills in situations common in legal settings. They apply useful note-taking techniques and perform memorybuilding exercises. Self-evaluation of practice activities is an essential element.

## LANG 2240 - Simultaneous Interpretation - Legal $\beta$

## 4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students begin this course with training techniques, including shadowing, dual tasking, and paraphrasing. They progress to simultaneous interpretation of oral exchanges common in legal settings. Students develop personalized glossaries of relevant terminology and evaluate their performance throughout the course.

## LANG 2310 - Fundamentals of Medical Interpretation $B$ <br> 4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students gain an understanding of the U.S. healthcare system and the protocol common in various medical settings. They study and practice basic techniques and modes of interpretation with relevant texts and oral passages by using monolingual and bilingual dictionaries, developing personalized glossaries, and familiarizing themselves with equipment to help improve their interpretation skills.

## LANG 2320 - Medical Terminology and Sight Translation- -

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students explore the origins of medical terminology and learn high-frequency terminology used in common healthcare settings. This course involves extensive practice in sight translation of various types of healthcare documents.

## LANG 2330 - Consecutive Interpretation - Medical-

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students practice their consecutive interpretation skills in situations common in medical settings, apply useful note-taking techniques, and perform memorybuilding exercises. Self-evaluation of practice activities is an essential element.

## LANG 2340 - Simultaneous Interpretation - Medical $ß$

4.5-0.0-4.5

Prerequisite: (3) LANG 1110; LANG 1120; and LANG 1130
Students begin this course with training techniques including shadowing, dual tasking, and paraphrasing. They progress to simultaneous interpretation of oral exchanges common in medical settings. Students develop personalized glossaries of relevant terminology and evaluate their performance throughout the course.

## LANG 2900 - Special Topics in Languages <br> Variable <br> Prerequisite: None

This course permits instruction in special content areas not included in other courses in the Languages and Language Interpretation program. Topics may include language interpretation, intensive conversation, and advanced grammar.

## LAWS - Legal Studies

## LAWS 1100 - The Paralegal Profession

## 4.5-0.0-4.5

Prerequisite: None
This course is 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. It also focuses on drafting projects featuring Microsoft Word software.

## LAWS 1101 - Introduction to Law

4.5-0.0-4.5

Prerequisite: None
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

4.5-0.0-4.5

Prerequisite: (2) LAWS 1100 and LAWS 1101 both with grades of C or better; or instructor approval
This course is a survey of the process of pursuing a civil action through the legal system. Topics include choice of courts, jurisdiction, venue, pleadings and related motions, discovery, pre-trial actions and preparation, and trial and appellate procedures. The course emphasizes the paralegal's role in gathering and organizing materials, interviewing and investigating, drafting complaints, answering interrogatories, pleadings, the trial notebook featuring Microsoft Word software, and assisting during the trial.

## LAWS 1111 - Microsoft Word for the Law Office $-ヨ$

4.5-0.0-4.5

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

4.5-0.0-4.5

Prerequisite: (3) ENGL 1020, LAWS 1110, and LAWS 1111; or instructor approval This course introduces the various types of research for which the paralegal is typically responsible, including computer-aided legal research, procedures, and case documentation. Utilizing Microsoft Word software, students learn to develop written memoranda and legal documents for attorneys based on their research.

## LAWS 1500 - Introduction to US Immigration Law- -

## 4.5-0.0-4.5

Prerequisite: None
This course is an overview of U.S. immigration law, policy, and procedure and includes an introduction to the laws, agencies, and tribunals that govern US immigration and citizenship. Topics include major legislative history and policy, family and employment-based immigration law, removal proceedings, naturalization, and common ethical issues encountered in immigration advocacy and compliance. Enrollment in this course does not qualify any person to engage in the practice of immigration law. This course is not intended for individuals enrolled in the Paralegal program. Paralegal students who have completed LAWS 2327 may substitute that course for this course.

## LAWS 1501 - Immigration Regulatory Agencies $\rightarrow$

## 4.5-0.0-4.5

Prerequisite: (1) LAWS 1500
The course surveys the six federal agencies involved in immigration law, policy and procedure: Department of Homeland Security, U.S. Citizenship and Immigration Services, U.S. Immigration and Customs Enforcement, U.S. Customs and Border Protection, U.S. Department of Labor and U.S. Department of State. It provides an overview of the role of the U.S. Department of Justice and U.S. Attorney General as well as the Executive Office Immigration Review, which conducts immigration court proceedings, appellate reviews, and administrative hearings. Enrollment in this course does not qualify any person to engage in the practice of immigration law.

## LAWS 1503 - Immigration and Families $\checkmark$

## 4.5-0.0-4.5

Prerequisite: (2) LAWS 1500 and LAWS 1501
This course provides an overview of the Immigration and National Act and federal regulations for sponsoring family members for lawful permanent residence.
Topics include an overview of family immigration, affidavit of support
requirements, eligibility for adjustment of status, consular processing, grounds of inadmissibility, and waivers of inadmissibility. This course surveys federal immigration laws that provide immigration benefits, battered immigrant spouses and children, victims of trafficking, and special immigrant juveniles. Enrollment in the course does not qualify any person to engage in the practice of immigration law.

## LAWS 1505 - Immigration and Employment $\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (2) LAWS 1500 and LAWS 1501
This course provides an introduction to employment-based immigrant visas. Topics include the steps to obtain an immigrant visa, including the visa preference categories, numerical limits, fees and visa application, required documents, medical and vaccination requirements, processing time, entering the U.S. port of entry, visa interview, visa ineligibility, and misrepresentation of material facts or fraud. This course provides an overview of the function and role of the U.S Citizenship and Immigration Service, National Visa Center, U.S. Department of State and U.S. Department of Labor. It reviews the law, regulations, and policy governing the employment-based immigrant visas. Enrollment in the course does not qualify any person to engage in the practice of immigration law.

## LAWS 1509 - Ethics and Immigration Advocacy and Compliance $-\boldsymbol{B}$

## 4.5-0.0-4.5

Prerequisite: (3) LAWS 1500 and LAWS 1501; and LAWS 1503 or LAWS 1505
This course focuses on immigration fraud, the unauthorized practice of law, and state legislation on immigration reform. Topics include an overview of notary, immigration specialist, and immigration consultant fraud; the Board of Immigration Appeals accredited agency and accredited representative programs; and contemporary issues in immigration reform. This course also surveys Form I-9 compliance, e-verify, Social Security No Match letters, and Department of Homeland Security Enforcement through ICE raids and audits. Enrollment in the course does not qualify any person to engage in the practice of immigration law.

## LAWS 1581 - Service Learning $-\nexists$

Variable
Prerequisite: (6) LAWS 1500, LAWS 1501, LAWS 1503, LAWS 1505, LAWS 1509, and instructor approval
Service-learning offers an opportunity for students to provide an important service to the community and to learn about immigration law, policy, and procedure. This course offers the opportunity to learn where immigrants to the United States are coming from, the reasons for coming to the United States, and the obstacles they face upon arrival. Students have opportunities to select various projects on immigration compliance and advocacy and proposed immigration reforms. Enrollment in the course does not qualify any person to engage in the practice of immigration law. Students may select 3.0 or 4.5 credit hours for this course.

## LAWS 2240 - Legal Research and Writing II <br> 4.5-0.0-4.5 <br> Prerequisite: (1) LAWS 1230

Students continue 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
4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course is a study of the concept of legal wrongs and their treatment in law to include intentional torts, negligence, and strict liability as applied to persons, property, and business. Topics 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 2322 - Family Law

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course studies laws affecting family-related matters, such as divorce, separation, child custody and support, adoption, guardianship, and paternity. It includes document drafting of orders, affidavits, decrees, and complaints.

## LAWS 2323 - Employment Law

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course studies 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 Procedures
4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course studies the 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 applications.

## LAWS 2325 - Bankruptcy, Credit, and Collections Law <br> 4.5-0.0-4.5 <br> Prerequisite: (1) LAWS 1110

This course studies the laws governing bankruptcy, voluntary and involuntary petitions, liens, preferences, powers of trustee, rights of debtors and creditors, liquidations, and the discharge of bankruptcy. It reviews the legal avenues for the collection of debts, including garnishments and seizures.

## LAWS 2326 - Evidence and Discovery

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course 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. It also covers the tools and procedures of pretrial discovery, including depositions, interrogatories, production of documents, physical and mental examinations, and requests for admissions.

## LAWS 2327 - Immigration Law

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course covers both employment-related immigration as well as family-based immigration. The course introduces students to the process, the federal forms used, and the interpretation of the laws covering the immigration procedural and substantive laws

## LAWS 2420 - Estate Administration

4.5-0.0-4.5

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

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110
This course 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

4.5-0.0-4.5

Prerequisite: (1) LAWS 1110 or BSAD 1100
This course is 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. It emphasizes the legal assistant's role in gathering facts, organizing data, and drafting documents typically encountered in the corporate environment.

## LAWS 2900 - Special Topics in Legal Studies

Variable
Prerequisite: (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 <br> 0.0-20.0-4.0

Prerequisite: (2) LAWS 1230 and instructor approval
Students begin work in a law office or other organization where they work under the supervision of an attorney. The variety of work assignments include such items as digesting depositions, organizing documents for discovery, drafting filings and pleadings, and reporting the status of cases. Students keep a notebook to log the kinds of tasks performed, and the work supervisor and Legal Studies program coordinator periodically review the notebook entries 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.

## LAWS 2982 - Internship II <br> 0.0-20.0-4.0

Prerequisite: (3) LAWS 2240; LAWS 2981; and instructor approval
During this internship, students continue to work under the supervision of an attorney and to record tasks in a notebook. Work assignments become progressively more difficult, and students are expected to expand the range of their 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.

## LAWS 2985 - Internship: Immigration Advocacy ${ }^{\text {B }}$ Variable

Prerequisite: (6) LAWS 1500, LAWS 1503, LAWS 1505, LAWS 1509; and LAWS 1501 or LAWS 2327; and instructor approval
The certificate in Immigration Law, Policy, and Procedure program internship may be taken when the student has completed 18.0 credit hours of the program requirements at MCC. The internship offers experience as well as educational and skill-enhancing opportunities. Students may perform the internship in a traditional public or private organization or a business where the student can apply the principles, procedures, and rules learned that relate to U.S. immigration law, policy, and procedure. Interns perform substantive work alongside individuals experienced in national security, visa categories, amnesty, legislation, employment, policy and economics. Interns acquire experience in immigration advocacy compliance, policy and procedure, and develop or build on marketable skills. The internship experience is recorded in an electronic portfolio submitted online and reviewed by the internship supervisor and faculty sponsor. Based on State guidelines, students must perform 40 hours of work for each 1.0 credit hour. Students may select 3.0 or 4.5 credit hours for this course.

## MATH - Mathematics

## MATH 0900 - Basic Arithmetic

3.0-0.0-3.0

Prerequisite: (1) Within two years prior to beginning the course, MCC placement test
This course addresses study skills for mathematics, student learning styles, and math anxiety. Topics include operations with whole numbers, properties of the real number system, and an introduction to fractions. NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it apply toward graduation.

## MATH 0910 - Developmental Mathematics $\checkmark$ ß

5.0-0.0-5.0

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0900 with a grade of $P$, or MCC placement test
This course presents basic computational skills for either review or initial mastery by the students. Topics include fractions; decimals; the solutions of ratio, proportion, and percent problems; operations with integers; and basic study skills for mathematics problem-solving and estimation. Topics may also include geometry, measurement, and basic algebraic concepts. NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it apply toward graduation.

## MATH 0930 - Beginning Algebra Part I

4.0-0.0-4.0

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0910 with a grade of P , or MCC placement test
This course is for students who need to learn basic algebra skills. Topics include positive and negative real numbers, solving linear equations and inequalities, and applications of linear equations.(Formerly MATH 0920) NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it count toward graduation.

## MATH 0931 - Beginning Algebra Part II

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0930 with a grade of $P$, or MCC placement test
Topics include integer exponents, operations with polynomials, factoring, rational expressions, equations of lines, and graphing of equations and inequalities. NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it apply toward graduation.

## MATH 0960 - Accelerated Beginning Algebra $\cup$

6.0-0.0-6.0

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0910 or MATH 0930 with a grade of $P$, or MCC placement test
This course is for students who need to review basic algebra skills. It is a fastpaced course that contains all of the content of both MATH 0930 Beginning Algebra Part I and MATH 0931 Beginning Algebra Part II 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. NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it apply toward graduation.

## MATH 1220 - Business Mathematics $-\mathcal{B}$

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0910 or higher with a grade of $P$ or $C$ or better, or MCC placement test
This course explores the development and application of the mathematical skills needed to solve problems related to business occupations. Topics include 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. NOTE: MATH 1220 and MATH 1240 do not require MATH 0930, 0931, or 0960 as a prerequisite; however, MATH 0910 skills are necessary. MATH 1220 and MATH 1240 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 do not transfer to other institutions as math credit.

## MATH 1240 - Applied Mathematics

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0910 with a grade of $P$, or MCC placement test
This course covers 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. NOTE: MATH 1220 and MATH 1240 do not require MATH 0930, 0931, or 0960 as a prerequisite; however, MATH 0910 skills are necessary. MATH 1220 and MATH 1240 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 do not transfer to other institutions as math credit.

## MATH 1242 - Applied Math for the Hospitality Industry

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0910 with a grade of $P$, or MCC placement test
This course covers the development and application of the mathematical skills needed to understand the financial concepts and solve problems related to the hospitality industry. Topics include basic math principles, conversions, yields, recipe costing, recipe conversions, selling prices, baking formulas, checking accounts and services, payroll, and payroll taxes.

## MATH 1260 - Geometry

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0930 or higher with a grade of P or C or better, or MCC placement test
This course covers geometric topics of logic, measurement, plane figure relationships, and figures in space.

## MATH 1310 - Intermediate Algebra -3

4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 0931 or MATH 0960 with a grade of $P$, or MCC placement test
This course extends basic algebra skills and provides the background necessary for further mathematics courses. Topics include 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 $-B$

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 1310 or higher with a grade of $C$ or better, or MCC placement test
This course requires students to develop a critical and functional understanding of data. Topics include frequency distributions, measures of central tendency and dispersion, probability and probability distribution, sampling concepts, estimating means, variances, standard deviations, proportions and percentages, hypothesis testing, and correlation and linear regression. Software and calculators are used as appropriate throughout the course.

## MATH 1420 - College Algebra $\checkmark$

5.0-0.0-5.0

Prerequisite: (1) Within one year prior to beginning the course, successful completion of MATH 1310 with a grade of C or better, placement via ACT, or MCC placement test
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. NOTE: The prerequisites include grades of $C$ or better in MATH 1420 and MATH 1430 for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

## MATH 1430 - Trigonometry ${ }^{-3}$

## 4.5-0.0-4.5

Prerequisite: (1) Within two years prior to beginning the course, 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. NOTE: The prerequisites include grades of C or better in MATH 1420 and MATH 1430 for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

## MATH 2410 - Calculus I-B

7.5-0.0-7.5

Prerequisite: (2) Within two years prior to beginning the course, either successful completion of MATH 1420 and MATH 1430 with a grade of $C$ or better in both courses, or MCC placement test
This course covers the mathematical tools used to analyze the continuous rate of change between variables. It reviews some principles of pre-calculus and investigates limits, differentiation, and integration. The course includes applications of both differentiation and integration. NOTE: The prerequisites include grades of C or better in MATH 1420 and MATH 1430 for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

## MATH 2411 - Calculus II-B

7.5-0.0-7.5

Prerequisite: (1) MATH 2410
Topics include logarithmic, exponential, inverse trigonometric and hyperbolic functions with their derivatives, and related integrals. The course includes techniques of integration, improper integrals, and infinite series. It covers polar coordinates and relates them to calculus.

## MATH 2412 - Calculus III-B <br> \section*{6.0-0.0-6.0}

Prerequisite: (1) MATH 2411
Topics include polar, cylindrical, and spherical coordinates. The course covers parametric equations and vectors in the plane and in space, including solid analytic geometry. It also includes vector-valued functions, functions of several variables, and multiple integrations.

## MATH 2510 - Differential Equations

## 4.5-0.0-4.5

Prerequisite: (1) MATH 2411
Corequisite: MATH 2412
This course covers solutions for first- and second-order ordinary differential equations and first-order non-linear differential equations with applications. It also covers power series, Fourier series, and Laplace Transform Methods. NOTE: The corequisite MATH 2412 can be taken concurrently or have previously been completed.

## MATH 2900 - Special Topics in Mathematics

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other math courses. Topics may include applied statistics, discrete mathematics, or number theory.

## MDST - Medical Assisting

## MDST 1010 - Clinical Procedures I

## 6.0-0.0-6.0

Prerequisite: (1) Successful completion of the first quarter of the Medical Assisting program
This course provides theoretical and clinical applications to instruct students on patient care procedures performed in the physician's office. These procedures include, but are not limited to, administering medication, taking vital signs, collecting and processing specimens, performing EKGs, preparing patients for examinations, procedures and treatments, and assisting with minor surgical procedures. This is an entry-level course.

## MDST 1020 - Administrative Procedures I

4.5-0.0-4.5

Prerequisite: (1) Acceptance into the Medical Assisting program
This course teaches students word processing skills, medical transcription, appointment scheduling, and the scheduling of inpatient and outpatient procedures.

## MDST 1030 - Medical Disorders

3.5-0.0-3.5

Prerequisite: None
This course provides students with the opportunity to study and learn basic information about common medical conditions that are frequently first diagnosed in the ambulatory healthcare setting. Understanding how diseases affect the human body is essential to providing patient care. The course introduces disease processes as well as infectious diseases, congenital diseases, and neoplasm in conjunction with the body systems that they affect.

## MDST 1040 - Clinical Terminology I

## 4.5-0.0-4.5

Prerequisite: (1) Acceptance into the Medical Assisting program
This course provides an introduction to the medical terminology used in the clinical healthcare setting. Students study with a systems approach and focus on root, prefixes, and suffixes commonly used in medical terms. The course emphasizes correct spelling and pronunciation and correct usage of medical terms and common abbreviations as they relate to the care of patients in the healthcare office. Upon completion, students learn 350 medical word roots, prefixes, and suffixes and are able to combine these to form over 11,000 complex medical terms used in the healthcare setting.

## MDST 1050 - Clinical Terminology II

4.5-0.0-4.5

Prerequisite: (3) MDST 1030; MDST 1040; and HIMS 1150
This course expands on basic clinical terminology by studying the medical terminology that relates to each system of the body, medical and surgical procedures, and lab reports. It instructs students in proper charting techniques, discharge summaries, and transcription of medical reports and administrative correspondence.

MDST 2010 - Clinical Procedures II
6.0-0.0-6.0

Prerequisite: (1) Successful completion of the second quarter of the Medical Assisting program

This course provides theoretical and clinical applications to instruct students on patient care procedures performed in the physician's office. These procedures include, but are not limited to, administering medication, taking vital signs, collecting and processing specimens, performing EKGs, preparing patients for examinations, procedures and treatments, and assisting with minor surgery procedures. This is a practitioner-level course.
MDST 2020 - Administrative Procedures II
4.5-0.0-4.5

Prerequisite: (1) MDST 1020
This course is a continuation of Administrative Procedures I. It includes a more in-depth discussion of insurance and its impact on healthcare. It also addresses diagnostic and procedural coding, completion of insurance forms, credit and collections, submission of third-party claims, payroll processing, bookkeeping principles, accounts payable, and accounts receivable.

## MDST 2030 - Laboratory Techniques

3.5-0.0-3.5

Prerequisite: (1) Successful completion of the second quarter of the Medical Assisting program
This course provides students with theoretical and simulated clinical experience with the preparation and collection of specimens for laboratory analysis. It emphasizes frequently performed laboratory tests done in the physician's office, including urinalysis, blood counts, and simple chemistries.

## MDST 2110 - Pharmacology for Medical Assistants and Allied Health Professionals I

4.5-0.0-4.5

Prerequisite: (5) Admission into the Medical Assisting program; HIMS 1120; HIMS 1150; MDST 1020; and MDST 1030
This course provides students with a basic understanding of pharmacology terms and related issues necessary for the clinical office or outpatient care setting. This course provides students with an introduction to therapeutic drug treatment regimens. It emphasizes understanding of pharmacodynamics, drug side effects, administration procedures, and dosage computations.

MDST 2120 - Pharmacology for Medical Assistants and Allied Health Professionals II
4.5-0.0-4.5

Prerequisite: (1) MDST 2110
This course provides students with the opportunity to apply different drug regimens, list the effects of medications on all of the body systems, state special considerations for age-specific medication administration, and identify drugs used to treat various disease processes. Students must also be able to identify and understand, at a minimum, the top 50 common medications used in the clinical and outpatient setting and how they relate to the human body and disease.

## MDST 2980 - MDST Externship <br> 0.0-0.0-18.5

Prerequisite: (1) Successful completion of all courses in the Medical Assisting program
This course is to provide students with the time to practice and perfect the didactic and clinical skills learned and provides a professional clinical office setting with qualified personnel to support students in their externship portion of the program. This course provides a learning experience that applies knowledge in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers in the healthcare field. The experience remains parallel in content and concept with the material presented in the didactic and classroom laboratory sessions.

## MUSC - Music

MUSC 1010 - Introduction to Music I
4.5-0.0-4.5

Prerequisite: None
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

4.5-0.0-4.5

Prerequisite: None

This course surveys music from 1800 to the present including compositions representative of blues, jazz, rock, and contemporary forms. It also examines music of non-Western cultures.

## MUSC 1050 - Music Appreciation $\because$ <br> 4.5-0.0-4.5 <br> Prerequisite: None

Students with no prior formal musical education learn to become informed listeners as they learn basic elements of music, such as rhythm, melody, and harmony, and advanced concepts, such as meaning and style.

## MUSC 1110 - Music Fundamentals I

4.5-0.0-4.5

Prerequisite: None
This course teaches musical notation and the musical elements of pitch, melody, rhythm, harmony, and form to students unacquainted with the language of music.

## MUSC 1120 - Music Fundamentals II

## 4.5-0.0-4.5

Prerequisite: (1) MUSC 1110
This course builds on musical terminology and basic music concepts and requires students to apply them in transposition, composition, and performance. The course also focuses on ear-training. It includes listening examples to assist students in developing a musically trained ear.

## NURS - Nursing

## NURS 1110 - Adult Nursing I <br> 3.0-9.0-6.0

Prerequisite: (5) Acceptance into the Practical Nursing program; CHEM 1010; ENGL 1010; MATH 1310; and PSYC 1120
This adult medical surgical course introduces basic concepts of client care. It presents the concepts of psychosocial and physiologic aspects of aging with an emphasis on caring for the institutional elderly client and caring for the surgical client. Students learn concepts on the musculoskeletal, peripheral vascular system, eye, ear, nose, and throat. This course includes didactic and a clinical component.

## NURS 1120 - Adult Nursing II

## 4.0-12.0-8.0

Prerequisite: (4) NURS 1110; NURS 1510; NURS 1200; and NURS 1300
This course presents cardiovascular disorders, respiratory disorders, cancer, and hematologic and lymphatic disorders. Students discuss gastrointestinal diseases 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

## 5.0-10.5-8.5

Prerequisite: (2) NURS 1110 and NURS 1950
This course 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 electrolytes, the renal system, and acid-base balance. Use of the nursing process continues to be an integral part of the course. The course discusses content on professional issues including leadership concepts and includes didactic and a clinical component.

## NURS 1200 - Professional Role of the Nurse I

## 1.0-0.0-1.0

Prerequisite: (5) Acceptance into the Practical Nursing program; CHEM 1010; ENGL 1010; MATH 1310; and PSYC 1120
This course assists students in identifying the role of the nurse as a member of the health team. It emphasizes 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.

## NURS 1300 - Mental Health Nursing I <br> 1.0-0.0-1.0

Prerequisite: (5) Acceptance into the Practical Nursing program; CHEM 1010; ENGL 1010; MATH 1310; and PSYC 1120
This course acquaints students with the concept of mental health as well as alterations in mental health. Topics include a review of select developmental theories and stages of the life cycle. The course explores stress, specific anxiety disorders, defense mechanisms, specific mental health alterations and current treatments, abuses, eating disorders, spirituality, death, and grief.

## NURS 1400 - Family Nursing I

2.0-3.0-3.0

Prerequisite: (2) NURS 1120 and NURS 1950
This course focuses on the common health and wellness needs of individuals in the child-bearing and child-rearing years. Topics include the pregnancy process and concepts of maternal and 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. The course discusses normal growth and development and select health problems from infancy through adolescence. This course includes didactic and a clinical component.

## NURS 1510 - Concepts of Health Assessment and Therapeutic

## Interventions

## 2.5-3.0-3.5

Prerequisite: (5) Acceptance into the Practical Nursing program; CHEM 1010; ENGL 1010; MATH 1310; and PSYC 1120
This course assists students in establishing a foundation for providing basic nursing care to the adult client. It introduces physical assessment and evidencebased practice to select nursing skills. It demonstrates comprehension of underlying principles and mastery of skills in the lab setting.

## NURS 1950 - Pharmacology

4.0-0.0-4.0

Prerequisite: (4) NURS 1110; NURS 1200; NURS 1300; and NURS 1510
This course assists students 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

3.5-4.5-5.0

Prerequisite: (2) NURS 2410 and NURS 2520
This course 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. It includes a clinical component.

## NURS 2150 - Adult Nursing V <br> 3.0-6.0-5.0

Prerequisite: (2) NURS 2140 and NURS 2310
This course 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, infectious disease, immune dysfunctions, end of life, and transplantation. It utilizes the critical-thinking process with subsequent safedecision outcomes. The course includes a clinical component.

## NURS 2210 - Professional Role of the Nurse II

1.0-0.0-1.0

Prerequisite: (2) NURS 2140 and NURS 2310
Corequisite: NURS 2410 and NURS 2520
This course assists students in identifying the role of the registered nurse as a member of the healthcare team. It emphasizes the role of the registered nurse, legal and ethical concepts, cultural influences, the nurse process, the teaching and learning process, and the healthcare delivery system.

## NURS 2310 - Mental Health Nursing II <br> 3.5-4.5-5.0

Prerequisite: (2) NURS 2410 and NURS 2520
This course examines mental health, mental illness, nurse-client relationships, and self-awareness. Through the use of the nursing process, therapeutic communication, and caring behaviors, the course promotes the path to wellness in individuals, families, and groups. It examines the role of the psychiatric nurse as a member of the mental health team and considers current issues and trends in mental health and the impact on practice. The course integrates pathophysiology, nutrition, and pharmacology and provides clinical experiences in acute or chronic health facilities and community-based experiences.

## NURS 2410 - Family Nursing II

3.0-2.0-5.0

Prerequisite: (1) Acceptance into the second-year nursing program
This course focuses on complex health and wellness needs of individuals and families throughout the life span.

## NURS 2520 - Concepts of Health Assessment and Therapeutic Interventions II

## 0.5-2.0-1.0

Prerequisite: (1) Acceptance into the second-year nursing program

This course assists students in developing assessment skills of the professional registered nurse. It introduces physical assessment skills related to light palpation percussion and the use of the otoscope and ophthalmoscope. Students learn the therapeutic interventions related to intravenous therapy. The course demonstrates comprehension of underlying principles and mastery of skills in the lab setting.

## PHED - Physical Education

## PHED 1000 - Physical Education for Health <br> 1.0-1.0-1.5

Prerequisite: None
This course provides information regarding muscle type and function. It gives attention to both aerobic and anaerobic physical training techniques consistent with a healthy lifestyle. Students develop and follow a personalized goal-directed exercise program. The course covers motivational techniques and dietary considerations.

## PHED 1010 - Physical Education for an Active Lifestyle

1.0-5.0-3.5

Prerequisite: None
This course provides information regarding muscle type and function. It gives attention to both aerobic and anaerobic physical training techniques consistent with an active lifestyle. Students develop and follow a personalized goal-directed exercise program. The course covers motivational techniques and dietary considerations.

## PHED 2900 - Special Topics in Physical Education Variable <br> Prerequisite: None

This course permits instruction in special content areas not included in other physical education courses.

## PHIL - Philosophy

## PHIL 1010 - Introduction to Philosophy - of

4.5-0.0-4.5

Prerequisite: None
This course focuses on topics fundamental to living an aware life. 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? The course explores questions such as these.

## PHIL 1030 - Professional Ethics $\checkmark \bigcirc$

4.5-0.0-4.5

Prerequisite: None
Society depends upon multiple professional services and supports. The professional provider has an obligation to be proficient at that profession and to incorporate moral principles and values in activities involving advertising, decision-making, and delivery systems. Professional adherence to ethical principles nurtures a society where citizens can pursue happiness. Upon completion of this course, students can apply critical reasoning to moral dilemmas. Students gain functional knowledge of the great ethical theories and concepts and relate this knowledge to professional and corporate codes of ethics in establishing an ethical foundation of business practice.

## PHIL 1100 - Critical Reasoning -3

## 4.5-0.0-4.5

## Prerequisite: None

The comprehension and acquisition of critical reasoning skills enables students to formulate credible opinions that they can effectively defend. The purpose of this course is to provide students with the fundamental critical reasoning skills and tools necessary for students to analyze and evaluate arguments as well as the ability to identify rhetorical devices and fallacies frequently used to impede critical reasoning.
PHIL 2030 - Introduction to Ethics $\checkmark$
4.5-0.0-4.5

Prerequisite: None
This course provides students with the critical reasoning skills necessary to analyze philosophical moral theories and identify logical fallacies and obstacles to moral reasoning. This course demonstrates the value of exploring opposing views relating to contemporary and historical controversial issues. Students use critical reasoning, philosophical inquiry, and ethical theory to resolve practical moral problems.

PHIL 2200 - Introduction to Comparative Religion $\sim$
4.5-0.0-4.5

Prerequisite: None
World religions are methodologically examined by comparing religious systems and patterns of the great religious traditions, indigenous religions, and new religious movements with regard to their origins, worldviews, beliefs, religious practices, exegesis (sacred texts, myths, and symbols), historical changes, and contemporary issues.

## PHIL 2400 - Philosophy and Literature <br> 4.5-0.0-4.5

Prerequisite: (1) One class in English (ENGL), Philosophy (PHIL), or Humanities (HUMS); or instructor approval
This course examines a variety of literature (narratives, poetry, and essays) in relation to the relevant topics in ethics, metaphysics, and aesthetics. The choice of narratives (fiction, drama, and film), poetry, and essays are compared to the representative concerts in ethics (social justice, moral dilemmas), metaphysics (materialism, idealism, realism), and aesthetics (classical and modern theories of art).

## PHIL 2600 - Contemporary Issues in Philosophy <br> 4.5-0.0-4.5 <br> Prerequisite: None

The course examines current issues in feminist philosophies, social and political philosophies, multiculturalism, and post-modernism in relation to their criticisms of traditional philosophy and in relation to how they envision the world. It emphasizes how to think beyond the current conflict.

## PHIL 2900 - Special Topics in Philosophy

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other philosophy courses. Topics may include contemporary issues, the philosophy of art and literature, and the foundations of science and technology.

## PHOT - Photography

## PHOT 1005 - Basic Photography I - Digital <br> 5.0-3.0-6.0 <br> Prerequisite: None

This course serves as an introduction to digital photographic image-making. It emphasizes camera operation, photographic composition, and technical and conceptual understanding of the photographic medium. Instructors regularly evaluate all work critiques. Students must have access to a Digital SLR camera capable of interchangeable lenses for this class.

## PHOT 1010 - Basic Photography II - Film <br> 5.0-3.0-6.0

Prerequisite: (1) Successful completion of PHOT 1005 with a grade of C or better
This course serves as a continuation of the concepts learned earlier and introduces students to traditional photographic processes using black and white film and darkroom practices to produce a portfolio of black and white prints. Instructors regularly evaluate all work in critiques.

## PHOT 1015 - Photographic Concepts

## 5.0-3.0-6.0

Prerequisite: (1) Successful completion of PHOT 1010 with a grade of C or better
This course acquaints students with photographic imagery of the past and present. It emphasizes photography's interrelationship with society and culture, art and technology, and the principles of visual design. (Formerly PHOT 1130)

## PHOT 1020 - Color Photography

## 5.0-3.0-6.0

Prerequisite: (2) PHOT 1010 and ARTS 1020 both with grades of C or better
This is an introductory course in color photography covering subtractive color theory, the use of color negative, and color printing procedures. (Formerly PHOT 1310)

## PHOT 1025 - Digital Photography <br> 5.0-3.0-6.0

Prerequisite: (1) Successful completion of PHOT 1005 with a grade of C or better
This course surveys digital imaging and electronic darkroom methods relevant to photography. Students continue to capture digital images and receive an introduction to image-editing applications and digital printing processes. Students produce a portfolio of creative work based on aesthetic and conceptual criteria. (Formerly PHOT 1210)

## PHOT 1500 - Moving Image Lab

## 5.0-3.0-6.0

Prerequisite: None
This course is an overview of methods used in moving-image production. By investigating the pre-production, production, and post-production processes, students achieve an understanding of how these principles integrate with still photography, video production, and multimedia.

## PHOT 1535 - Large Format Photography

5.0-3.0-6.0

Prerequisite: (2) Successful completion of PHOT 1010 and PHOT 1015 both with grades of $C$ or better
This advanced-level course continues the investigation and application of black and white photography by using professional $4 \times 5$ camera and fiber-based black and white printing applications. (Formerly PHOT 1140)

PHOT 1540 - Photojournalism
5.0-3.0-6.0

Prerequisite: (3) Successful completion of PHOT 1005, PHOT 1025, and PHOT 1500 with grades of $C$ or better
This course serves as an introduction to journalistic photography and studies newspaper, magazine editorial, and documentary photography. Students complete individual assignments and express and illustrate the working process of news, magazine, and documentary photography. (Formerly PHOT 2150)

## PHOT 1545 - Photographic Lighting

5.0-3.0-6.0

Prerequisite: (3) Successful completion of PHOT 1015, PHOT 1020, and PHOT 1025 with grades of $C$ or better
This course is an introduction to both the medium-format camera and studio flash photographic lighting. Topics include working with medium format cameras using either film or digital technology, using lighting equipment in a studio setting, and designing the appropriate lighting for the subject. All work is completed using the medium format camera and printed in the color darkroom or digital lab.

## PHOT 1550 - Experimental Photography

## 5.0-3.0-6.0

Prerequisite: (2) Successful completion of PHOT 1025 and PHOT 1535 both with grades of $C$ or better
This course is for students who have mastered the basic technical processes of black and white photography (film developing, printmaking, and print presentation) and wish to learn a variety of historical and alternative processes as a means of reaching new visual goals. It emphasizes nontraditional approaches to seeing and utilizing students' innate creativity to generate an expressive image as well as the ability to use historical photographic processes in a contemporary context. (Formerly PHOT 2170)

## PHOT 2015 - Intermediate Photographic Concepts

## 5.0-3.0-6.0

Prerequisite: (3) Successful completion of PHOT 1015, PHOT 1020, and PHOT 1025 with grades of $C$ or better
This course teaches the practical steps necessary to move from the formation of an idea to the professional execution of that idea. It addresses contemporary issues in the realm of fine art and commercial photography. (Formerly PHOT 2130)

## PHOT 2025 - Intermediate Digital Photography

5.0-3.0-6.0

Prerequisite: (3) Successful completion of PHOT 1015, PHOT 1020, and PHOT 1025 with grades of $C$ or better

Students refine and extend techniques involving scanning and digital camerawork, control of image quality, and color-managed output options. The course emphasizes greater understanding and more precise control of image input, asset management, and computer-based printing. Students produce a portfolio of creative work based on aesthetic and conceptual criteria. (Formerly PHOT 2210)

## PHOT 2525 - Advanced Digital Photography

5.0-3.0-6.0

Prerequisite: (2) Successful completion of PHOT 1545 and PHOT 2025 both with grades of $C$ or better
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. It emphasizes developing a professional workflow employing a variety of advanced techniques and resulting in high-level creative control over image output. (Formerly PHOT 2211)

## PHOT 2535 - Advanced Large Format Photography

## 5.0-3.0-6.0

Prerequisite: (2) Successful completion of PHOT 1535 and PHOT 2015 both with grades of $C$ or better
This course continues and refines the use of the $4 \times 5$ camera as a professional image-making tool. Students select between traditional black and white, traditional color, and digital photographic practices to produce a portfolio of exhibition-quality prints. Throughout the quarter, instructors and students evaluate work on technical, conceptual, and aesthetic considerations in a series of one-on-one group critiques.

## PHOT 2545 - Advanced Photographic Lighting

5.0-3.0-6.0

Prerequisite: (3) Successful completion of PHOT 1545, PHOT 2015, and PHOT 2025 with grades of $C$ or better
This advanced-level course continues the use of professional equipment. It focuses more on complex and complicated situations and subjects. (Formerly PHOT 2410)

## PHOT 2550 - Advanced Experimental Photography <br> 5.0-3.0-6.0

Prerequisite: (1) Successful completion of PHOT 1550 with a grade of $C$ or better
This course is a continuation of the process-related image-making techniques. It emphasizes use of enlarged large-format negatives and digital negatives for use with hand-painted emulsions. The class also explores techniques that create one-of-a-kind images directly onto glass and metal plates. Students further develop these processes with increased attention on perfecting and repeating processes with the outcome of students sharing their work through a suite of prints. The course emphasizes technical proficiency, image content, and conceptualization. (Formerly PHOT 2270)

## PHOT 2560 - Portfolio Development and Professional Practice 5.0-3.0-6.0

Prerequisite: (2) Successful completion of PHOT 2015 and PHOT 2025 both with grades of $C$ or better
Through critical feedback, this course prepares students to build a
comprehensive, professionally oriented body of work using skills, processes, and concepts acquired in earlier photography courses. Additionally, the course covers ethical, legal, financial, and aesthetic issues pertinent to contemporary
photography. (Formerly PHOT 2180)

## PHOT 2900 - Special Topics in Photography <br> \section*{Variable}

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other photography courses.

## PHOT 2981 - Internship

Variable
Prerequisite: (1) Instructor approval
Students work in a professional photography or video workplace. Types of work involved may include photography, assisting with cameras, darkroom work, equipment handling, set preparation, video production and post-production, and audio production and post-production. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## PHYS - Physics

## PHYS 110A - Principles of Physics IA

## 2.0-1.5-2.5

Prerequisite: (2) MATH 1310; and college-level reading, writing, and math proficiency
Corequisite: PHYS 110AL
This course is the first half of an algebra-based college physics sequence. The course is taught as three courses (PHYS 110A, 110B, and 110C), all of which must be successfully completed to transfer as a semester-length course. Topics include kinetics, vectors, Newton laws, work, and energy. Beginning 14/FA, students registering for this course must also register for PHYS 110AL which is the laboratory component of the course.

## PHYS 110B - Principles of Physics IB

2.0-1.5-2.5

Prerequisite: (2) PHYS 110A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 110BL

This course is the first half of an algebra-based college physics sequence. The course is taught as three courses (PHYS 110A, 110B, and 110C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include momentum, rotational motion, gravitation, and fluids. Beginning 14/FA, students registering for this course must also register for PHYS 110BL which is the laboratory component of the course.

## PHYS 110C - Principles of Physics IC

## 2.0-1.5-2.5

Prerequisite: (2) PHYS 110B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 110CL
This course is the first half of an algebra-based college physics sequence. The course is taught as three courses (PHYS 110A, 110B, and 110C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include kinetic theory, heat, and thermodynamics. Beginning 14/FA, students registering for this course must also register for PHYS 110 CL which is the laboratory component of the course.

## PHYS 111A - Principles of Physics IIA

2.0-1.5-2.5

Prerequisite: (2) PHYS 110C; and college-level reading, writing, and math proficiency
Corequisite: PHYS 111AL
This course is a continuation of the algebra-based sequence of college physics. The course is taught as three courses (PHYS 111A, 111B, and 111C) all of which must be successfully completed to transfer as a semester-length course. Topics include waves, sound, and electricity. Beginning 14/FA, students registering for this course must also register for PHYS 111AL which is the laboratory component of the course.

## PHYS 111B - Principles of Physics IIB

2.0-1.5-2.5

Prerequisite: (2) PHYS 111A; and college-level reading, writing, and math proficiency

## Corequisite: PHYS 111BL

This course is a continuation of the algebra-based sequence of college physics. The course is taught as three courses (PHYS 111A, 111B, and 111C) all of which must be successfully completed to transfer as a semester-length course. Topics include electricity and magnetism. Beginning 14/FA, students registering for this course must also register for PHYS 111BL which is the laboratory component of the course.

## PHYS 111C - Principles of Physics IIC

2.0-1.5-2.5

Prerequisite: (2) PHYS 111B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 111CL
This course is a continuation of the algebra-based sequence of college physics.
The course is taught as three courses (PHYS 111A, 111B, and 111C) all of which must be successfully completed to transfer as a semester-length course. Topics include light, optics, and select topics in modern physics. Beginning 14/FA, students registering for this course must also register for PHYS 111CL which is the laboratory component of the course.

## PHYS 1010 - Applied Physics

2.5-6.0-4.5

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency

## Corequisite: PHYS 1010L

This course provides a general understanding of the basic principles and practical applications of mechanics, heat, electricity, magnetism, and light. Beginning 14/FA, students registering for this course must also register for PHYS 1010L which is the laboratory component of the course.

## PHYS 1010L - Applied Physics Lab

## 0.0-0.0-0.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
Corequisite: PHYS 1010
This is the lab component of PHYS 1010. Lab activities are designed to focus on the basic principles and practical applications of mechanics, heat, electricity, magnetism, and light. Students registering for this course must also register for PHYS 1010 which is the lecture component of the course.

## PHYS 110AL - Principles of Physics IA Lab

## 0.0-0.0-0.0

Prerequisite: (2) MATH 1310; and college-level reading, writing, and math proficiency
Corequisite: PHYS 110A
This is the lab component for PHYS 110A. Lab activities for this course focus on kinetics, vectors, Newton laws, work, and energy. Students registering for this course must also register for PHYS 110A which is the lecture component of the course.

## PHYS 110BL - Principles of Physics IB Lab

## 0.0-0.0-0.0

Prerequisite: (2) PHYS 110A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 110B
This is the lab component for PHYS 110B. Lab activities for this course focus on momentum, rotational motion, gravitation, and fluids. Students registering for this course must also register for PHYS 110B which is the lecture component of the course.

## PHYS 110CL - Principles of Physics IC Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 110B; and college-level reading, writing, and math proficiency

## Corequisite: PHYS 110C

This is the lab component for PHYS 110C. Lab activities for this course focus on kinetic theory, heat, and thermodynamics. Students registering for this course must also register for PHYS 110C which is the lecture component of the course.

## PHYS 111AL - Principles of Physics IIA Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 110C; and college-level reading, writing, and math proficiency
Corequisite: PHYS 111A
This is the lab component for PHYS 111A. Lab activities for this course focus on waves, sound, and electricity. Students registering for this course must also register for PHYS 111A which is the lecture component of the course.

## PHYS 111BL - Principles of Physics IIB Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 111A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 111B
This is the lab component for PHYS 111B. Lab activities for this course focus on electricity and magnetism. Students registering for this course must also register for PHYS 111B which is the lecture component of the course.

## PHYS 111CL - Principles of Physics IIC Lab

## 0.0-0.0-0.0

Prerequisite: (2) PHYS 111B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 111C
This is the lab component for PHYS 111C. Lab activities for this course focus on light, optics, and selected topics in modern physics. Students registering for this course must also register for PHYS 111C which is the lecture component of the course.

## PHYS 210A - General Physics IA

2.0-1.5-2.5

Prerequisite: (2) MATH 2410; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210AL
This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C), all of which must be successfully completed to transfer as a semester-length course. Topics include kinematics, vectors, Newton laws, work, and energy. Beginning 14/FA, students registering for this course must also register for PHYS 210AL which is the laboratory component of the course.

## PHYS 210B - General Physics IB

2.0-1.5-2.5

Prerequisite: (2) PHYS 210A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210BL
This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C), all of which must be
successfully completed to transfer as a semester-length course. Topics include momentum, rotational motion, gravitation, and fluids. Beginning 14/FA, students registering for this course must also register for PHYS 210BL which is the laboratory component of the course.

## PHYS 210C - General Physics IC

2.0-1.5-2.5

Prerequisite: 2) PHYS 210B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210CL
This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include kinetic theory, heat, and thermodynamics.
Beginning 14/FA, students registering for this course must also register for PHYS 210 CL which is the laboratory component of the course.

## PHYS 211A - General Physics IIA

## 2.0-1.5-2.5

Prerequisite: (3) MATH 2410; PHYS 210C; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211AL and MATH 2411
This course is a continuation of the calculus-based college physics sequence.
The course is taught as three courses (PHYS 211A, 211B, and 211C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include waves, sound, and electricity. Beginning 14/FA, students registering for this course must also register for PHYS 211AL which is the laboratory component of the course. NOTE: The corequisite MATH
2411 may be taken prior to or concurrently with PHYS 211A/B.

## PHYS 211B - General Physics IIB

2.0-1.5-2.5

Prerequisite: (2) PHYS 211A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211BL
This course is a continuation of the calculus-based college physics sequence.
The course is taught as three courses (PHYS 211A, 211B, and 211C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include electricity and magnetism. Beginning 14/FA, students registering for this course must also register for PHYS 211BL which is the laboratory component of the course.

## PHYS 211C - General Physics IIC

## 2.0-1.5-2.5

Prerequisite: (2) PHYS 211B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211CL
This course is a continuation of the calculus-based college physics sequence. The course is taught as three courses (PHYS 211A, 211B, and 211C), all of which must be successfully completed to transfer as a semester-length course. Topics for this portion of the course include light, optics, and selected topics from modern physics. Beginning 14/FA, students registering for this course must also register for PHYS 211CL which is the laboratory component of the course.

## PHYS 210AL - General Physics IA Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 111C; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210A
This is the lab component for PHYS 210A. Lab activities for this course focus on kinematics, vectors, Newton laws, work, and energy. Students registering for this course must also register for PHYS 210A which is the lecture component of the course.

## PHYS 210BL - General Physics IB Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 210A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210B
This is the lab component for PHYS 210B. Lab activities for this course focus on momentum, rotational motion, gravitation, and fluids. Students registering for this course must also register for PHYS 210B which is the lecture component of the course.

## PHYS 210CL - General Physics IC Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 210B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 210C
This is the lab component for PHYS 210C. Lab activities for this course focus on kinetic theory, heat, and thermodynamics. Students registering for this course must also register for PHYS 210 C which is the lecture component of the course.

## PHYS 211AL - General Physics IIA Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 210C; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211A
This is the lab component for PHYS 211A. Lab activities for this course focus on waves, sound, and electricity. Students registering for this course must also register for PHYS 211A which is the lecture component of the course.

## PHYS 211BL - General Physics IIB Lab

0.0-0.0-0.0

Prerequisite: (2) PHYS 211A; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211B
This is the lab component for PHYS 211B. Lab activities for this course focus on electricity and magnetism. Students registering for this course must also register for PHYS 211B which is the lecture component of the course.

## PHYS 211CL - General Physics IIC Lab <br> 0.0-0.0-0.0

Prerequisite: (2) PHYS 211B; and college-level reading, writing, and math proficiency
Corequisite: PHYS 211C
This is the lab component for PHYS 211C. Lab activities for this course focus on light, optics, and selected topics in modern physics. Students registering for this course must also register for PHYS 211C which is the lecture component of the course.

## PHYS 2500 - High Altitude Balloon Experience

## 1.5-0.0-1.5

Prerequisite: (8) PHYS 1010, PHYS 110A, PHYS 110B, PHYS 110C, PHYS
210A, PHYS 210B, and PHYS 210C and college-level reading, writing, and math proficiency; or instructor approval
This course introduces students to the world of high-altitude ballooning (HAB). It provides the background necessary to design a pod with scientific sensors and to participate in the launch and retrieval of a balloon with the payload attached. It is a five-week course with the schedule appropriate to an individual quarter.

## PHYS 2900 - Special Topics in Physics <br> <br> Variable

 <br> <br> Variable}Prerequisite: None
This course permits instruction in special content areas not included in other physics courses, depending on interest and relevancy to curriculum.

## PLAP - Plumbing Apprenticeship

## PLAP 1110 - Plumbing IA

7.0-0.0-7.0

Prerequisite: None
This course is an introduction to the plumbing trade for plumbing apprentices. It covers the history of plumbing along with the commonly used materials, tools, and equipment. The course teaches apprentices math used in the plumbing trade.

## PLAP 1120 - Plumbing IB

7.0-0.0-7.0

Prerequisite: (1) PLAP 1110
This course is a continuation of the introductory material. The apprentice continues working on math for the plumbing trade.

## PLAP 1121 - Plumbing IC

## 3.0-0.0-3.0

Prerequisite: (1) PLAP 1120
This course is a continuation of first year plumbing apprenticeship classes. The course concentrates on materials used in the plumbing trade, and it includes proper ways to cut, clean, and join those materials.

## PLAP 1150 - Grey Water Recycling

3.0-0.0-3.0

Prerequisite: None
This course covers the proper way to collect and reuse grey water. Grey water collection serves two purposes: cutting down on both the amount of freshwater needed and the wastewater generated by a building.

## PLAP 1210 - Plumbing IIA

7.0-0.0-7.0

Prerequisite: (1) PLAP 1120
This course covers the sizing and design of water, waste, and vent systems in residential applications using MUD and Omaha Plumbing Code rules. Students become familiar with residential blueprints and isometric drawings used in residential applications.

## PLAP 1220 - Plumbing IIB

7.0-0.0-7.0

Prerequisite: (1) PLAP 1210
This course provides a better understanding of the Omaha Plumbing Code. Using the knowledge acquired, students apply the code requirements to field work and lab projects. Students also continue gaining proficiency using plumbing math.

## PLAP 1221 - Plumbing IIC

3.0-0.0-3.0

Prerequisite: (1) PLAP 1220
This course covers customer service along with troubleshooting and repair of residential plumbing systems. It covers water closet, faucet, water heater, and water conditioning systems as well as proper operation of drain cleaning machines and cameras.

## PLAP 2310 - Plumbing IIIA

7.0-0.0-7.0

Prerequisite: (1) PLAP 1220
This course develops students' proficiency in the use of the Omaha Plumbing Code. The course continues with the design and installation of drain, waste, and vent systems; water supply systems; and storm drainage systems. Students also gain a working knowledge of the differences between the Omaha Plumbing Code and the Uniform Plumbing Code.

## PLAP 2320 - Plumbing IIIB

7.0-0.0-7.0

Prerequisite: (1) PLAP 2310
This course covers the design and installation of public and private sewage systems, medical gas piping systems, and irrigation systems. The course also covers MUD regulations for water, gas, and vent piping systems for gas appliances.

## PLAP 2330 - Print Reading for Plumbers <br> 3.5-0.0-3.5 <br> Prerequisite: (1) PLAP 2320

This course helps the apprentice gain the basic knowledge needed to read blueprints, create shop drawings, and make isometric illustrations of a plumbing system.

## PLAP 2410 - Plumbing IVA

## 7.0-0.0-7.0

Prerequisite: (1) PLAP 2320
This course continues with the interpretation and application of the Omaha Plumbing Code in the design of plumbing systems. It covers installation procedures for various plumbing systems, including water conditioning and swimming pools, as well as commercial blueprints.

## PLAP 2420 - Plumbing IVB

7.0-0.0-7.0

Prerequisite: (1) PLAP 2410
This course reviews the Omaha Plumbing Code, job site safety, and math skills required for the plumbing trade. Review and application of classroom knowledge prepares the apprentice to successfully take the journeyman plumbers test.

## POLS - Political Science

POLS 1010 - Introduction to Urban Studies
4.5-0.0-4.5

Prerequisite: None
This course is designed to provide basic information about the field of urban studies and includes in-depth analyses of the issues, concepts, theories, and discourses of urban studies. Topics covered include the process of urbanization, American and comparative urban settlement patterns, urban and local government administration, economic development and growth, political economy perspectives, suburbanization and sprawl, urban planning, and urban lifestyles.
POLS 1050 - State and Local Government
4.5-0.0-4.5

Prerequisite: None
This course is a survey of state and local government. Political, economic, social and cultural factors are considered. It also includes an examination of the following topics: a comparative analysis of the structure and function of the 50 American state governments; policy determination process and the significant variables that pattern this process; broad introduction to the political structure and operations of state and local governments; role and power of state and local governments; government institutions; political parties and interest groups; public policy; and state constitutions.

## POLS 2050 - American National Government $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
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. It includes the party system and an analysis of the U.S. Constitution. The course is a descriptive, institutional approach with considerable attention to the policy-making process. College-level reading skills are recommended for success in this course.

## POLS 2060 - The Constitution -0

## 4.5-0.0-4.5

Prerequisite: None
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 include executive privilege and delegation of powers; war powers 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 and freedom of the press; school prayer; gun control; right to assemble; right to live; right to die; immigration reform; affirmative action; and federalism. College-level reading skills are recommended for success in this course.

## POLS 2070 - Contemporary Social and Political Issues $\checkmark$ <br> 4.5-0.0-4.5

Prerequisite: None
This course examines the social and political issues relevant to the 21st century through reading, discussion, and media. The overall theme of the course is globalization and global understanding. Topics include 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. College-level reading skills are recommended for success in this course.

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.

## PROT - Process Operations Technology

## PROT 1000 - Introduction to Process and Power Operations Variable <br> Prerequisite: None

This course introduces students to various equipment and components found in the process and power operations industry. Topics include preventive and predictive maintenance, safety, lubrication, precision measuring devices, compressors, pumps, valves, steam systems, heat exchangers, cooling systems, and process instrumentation.

## PROT 1010 - Safety Topics for Process and Power Operations

Variable
Prerequisite: None
This course provides instruction in various safety topics found in the process and power operations industry.

## PROT 1100 - Process Instrumentation and Control

 3.5-3.0-4.5Prerequisite: None
This course introduces instruments and controls used to monitor, maintain, and control industrial processes. Topics include instruments used to measure, record, monitor, maintain and adjust temperatures, pressures, flows, and levels.

## PROT 1110 - Reading and Understanding Process Diagrams

## 2.0-0.0-2.0

Prerequisite: None
This course introduces students to symbols, labels, and diagrams used in the process and power industry. This course also introduces students to reading and understanding process diagrams.

## PROT 1250 - Basic Electricity for Power and Process

5.0-3.0-6.0

Prerequisite: None
This course consists of lectures, discussions, demonstrations, and coaching in the general area of electrical theory and practice used in process control systems. It studies electron theory as it relates to ac and dc circuits. Students study various circuits, resistance, capacitance, inductance, symbols, and wiring diagrams. Lab assignments and virtual training provide students an understanding of electrical theory, measuring, and control devices. The course emphasizes safety, as students are working with actual controls and voltages.

## PROT 1302 - Stationary Engineering I

3.0-0.0-3.0

Prerequisite: None
This course provides basic instruction in low- and high-pressure boilers in the stationary engineering field. This is the first of two courses designed to help students obtain a City of Omaha, Third Grade Stationary Engineers Certificate. (Formerly INCT 1302)

## PROT 1320 - Fuel Handling

3.0-0.0-3.0

Prerequisite: None
This course introduces students to skills generally required for entry-level employment in a steam power plant. Topics include the safety, systems, equipment, and procedures required in handling coal, oil, gas, or nuclear fuel to generate electricity in a power plant.

## PROT 2200 - Dynamics of Process Control

3.5-3.0-4.5

Prerequisite: (3) CHEM 1212; MATH 1410; and PHYS 1010
This course introduces students to the application of physics, chemistry, and math as they apply to the concepts of process control. Topics include relationships dealing with energy, heat, temperature, pressure, solids, liquids, gasses, fluid systems, and heat transfer found in various processing plants.

## PROT 2210 - Ethanol Process Fundamentals

## 2.5-3.0-3.5

Prerequisite: None
This course introduces students to theory and process fundamentals used in ethanol and other process industries. Topics include distillation, evaporation, dehydration and separation as they apply to processing plants.

## PROT 2302 - Stationary Engineering II

4.0-0.0-4.0

Prerequisite: (1) PROT 1302
This course provides advanced instruction in steam boilers and related systems in the stationary engineering field. This course is a continuation of PROT 1302. (Formerly INCT 2302)

## PROT 2310 - Steam Plant Operation I

4.5-0.0-4.5

Prerequisite: None
This course introduces students to skills generally required for entry-level employment in a steam power plant. Topics include the generation of steam, valves, and piping used in the power plant; thermodynamics and heat transfer; pump theory and design; and water purification and treatment.

## PROT 2320 - Steam Plant Operation II

## 4.5-0.0-4.5

Prerequisite: None
This course introduces students to skills generally required for entry-level employment in a steam power plant. Topics include boiler theory, boiler design, boiler components and types, combustion systems, boiler accessories, boiler operation and maintenance, steam turbines, condensers and cooling towers, auxiliary steam plant equipment, and environmental control systems.

## PROT 2330 - Steam Plant Operation III <br> 6.0-0.0-6.0

Prerequisite: None
This course introduces students to skills generally required for entry-level employment in a steam power plant. Topics include diesel engine theory and design, gas turbine theory and design, air-compressor theory and design, refrigeration theory and chiller design, electric generator theory and design, electrical distribution, electrical systems management, and fire safety.

## PROT 2410 - Nuclear Plant Operation I

4.5-0.0-4.5

Prerequisite: (4) CHEM 1010; PROT 2320; PROT 2330; and MATH 1410
This course introduces students to skills generally required for entry-level employment in a nuclear power plant and provides students with the general systems and components associated with a nuclear power plant. This course follows the associate degree program recommendations outlined in the Uniform Curriculum Guide for Nuclear Power Plant Operator, Non-Licensed Operations Personnel developed by the Nuclear Energy Institute.

## PROT 2420 - Nuclear Plant Operation II

## 3.0-0.0-3.0

Prerequisite: (1) PROT 2410
This course introduces students to skills generally required for entry-level employment in a nuclear power plant. Topics include basic atomic structure, basic nuclear interactions and reactions, the basic fission process, and basic reactor operation. This course follows the associate degree program recommendations outlined in the Uniform Curriculum Guide for Nuclear Power Plant Operator, Non-Licensed Operations Personnel developed by the Nuclear Energy Institute.

## PROT 2900 - Special Topics in Process Operations Technology Variable

Prerequisite: None
This course permits instruction in special content areas related to the Process Operations Technology program.

## PSYC - Psychology

## PSYC 1000 - Psychology for Everyday Living <br> 4.5-0.0-4.5

Prerequisite: None
This course provides a survey of the major themes in psychology and explores applications for daily living. Topics include adult development, personal problemsolving and motivation, anger management, parenting, stress management, and intimacy issues. Students can take this course only during the Spring quarter. NOTE: PSYC 1000 is highly recommended for vocational technical careers.

## PSYC 1010 - Introduction to Psychology - , ©

4.5-0.0-4.5

Prerequisite: None
This course is an introduction to the science of psychology, including the application of critical thinking to the study of learning theory, memory, personality, growth and development, biological and neurological aspects, abnormal behavior, therapies, intelligence, motivation, emotion, sensation, perception, and theoretical perspectives.

## PSYC 1110 - Parenting and Family Problem Solving 0 <br> 4.5-0.0-4.5 <br> Prerequisite: None

This course introduces students to effective parenting skills and strategies for solving family problems. It emphasizes parent-child relations, developmental milestones, family systems theory, family communication, family composition, and issues related to abuse and neglect. Students explore parenting challenges, such as single parenthood, divorce, custody issues, step-family systems, and conflict management. Other topics include same-sex parenting, inter-racial families, families faced with natural disasters, and other catastrophes.

## PSYC 1120 - Human Growth and Development $\smile \bigcirc$

4.5-0.0-4.5

Prerequisite: None
This course addresses the stages of the human life span: prenatal, infancy, toddlerhood, middle childhood, adolescence, adulthood, and gerontology. For each stage of the life span, the course examines cognitive, language, emotional, social, personality, and physical development. In addition, students explore the procedures used to conduct research about human development.

## PSYC 1130 - Cognitive Development $-\mathcal{B}$ <br> 4.5-0.0-4.5

This course examines current cognitive theories utilized in the field of education. The course is an in-depth study of the stage theories and their application to experiential and developmental environments. As students study stages of development, they learn implications for adaptation in the educational classroom setting. Students gain experience in assessing cognitive levels, reporting such findings, and planning curriculum to enhance development.

## PSYC 2140 - Behavior Modification and Principles of Learning $\checkmark \nexists$

 4.5-0.0-4.5
## Prerequisite: None

This course exposes students to the history and various theoretical approaches to the study of learning and behavior modification. Students have opportunities to learn applied behavior modification techniques including observing and recording behavior and formulating and writing behavioral objectives. This course includes an examination of motivation, attitude formation, and cognitive intervention approaches. Reading assessment and college-level reading skills are recommended for success in this course.

## PSYC 2150 - Survey of Human Sexuality ${ }^{\text {B }}$

4.5-0.0-4.5

Prerequisite: (1) PSYC 1010 or SOCI 1010
This course is a survey of the topic of human sexuality. It presents materials concerning the biological, psychological, and socio-cultural facets of sexual behavior. (Cross-listed as SOCI 2150)

## PSYC 2350 - Fundamentals of Abnormal Psychology $\sim^{\bullet}$

4.5-0.0-4.5

Prerequisite: (1) PSYC 1010 or PSYC 1120
This course examines historical and contemporary views and issues of abnormal behavior. It also explores methods of explaining, diagnosing, and treating disordered behavior.

## PSYC 2450 - Social Psychology ${ }^{\bullet}$

## 4.5-0.0-4.5

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 SOCl 2450 )

## PSYC 2550 - Popular Readings in Social Science $-\boldsymbol{B}$

## 4.5-0.0-4.5

Prerequisite: None
This course explores the psychological and sociological authenticity of selected popular psychology, social issues, and self-help books. It emphasizes theoretical foundation, sociological conditions and variables, and therapeutic or pseudotherapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended. (Cross-listed as SOCI 2550)

## PSYC 2650 - Research Methods $\checkmark \nrightarrow$

4.5-0.0-4.5

Prerequisite: None
This is an introductory course in research methods and design. The course is comprehensive. Students examine the entire research process including formulating research questions, sampling, measurement (surveys, scaling, qualitative, and quantitative), research design (experimental and quasiexperimental), data analysis, and research writing. It 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 students 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
Prerequisite: None
This course permits instruction in special content areas that are not included in other psychology courses.

## RDLS - Reading and Learning Skills

## RDLS 0096 - Reading Comprehension for ESL

## 3.0-0.0-3.0

Prerequisite: (1) Assessment testing in reading
This course actively engages English language learners in an individualized program that builds competence and comfort in reading, speaking, and listening in English. Students learn as they read and use the English language, simultaneously building English communication skills and addressing reading challenges. ESL students gain skills in appropriate English communication structure, vocabulary, reading comprehension, and pronunciation.

## RDLS 0097 - Reading Comprehension for ESL-II

3.0-0.0-3.0

Prerequisite: (1) Required based on placement testing, two previous re-enroll grades, or instructor recommendation.
This course is a continuation of the RDLS 0096 Reading Comprehension for ESL course. The course is an individualized program that builds competence and comfort in reading, speaking, and listening in English. Students learn as they read and use the English language, simultaneously building English communication skills and addressing reading challenges. ESL students gain skills in appropriate English communication structure, vocabulary, reading comprehension, and pronunciation.

## RDLS 0098 - Power Reading I <br> 4.0-0.0-4.0

Prerequisite: (1) Assessment testing
This course actively engages students in an individualized program that builds a solid foundation of skills needed in reading for information. The course helps students quickly, efficiently, and permanently improve reading skills and eliminate basic reading problems so they can easily and comfortably understand text. Improved reading skills make it easier for students to attain success in other academic classes, including English, math, general education and occupational courses, while building self-esteem and confidence.

## RDLS 0099 - Power Reading II

## 4.0-0.0-4.0

Prerequisite: (1) Assessment testing or successful completion of RDLS 0098
This course builds the reading skills needed to enter RDLS 0100 College Reading Strategies. It actively engages students in an individualized program that builds a solid foundation of skills needed in reading for information. The course helps students quickly, efficiently, and permanently improve reading skills and eliminate basic reading problems so they can easily and comfortably understand text. Improved reading skills make it easier for students to attain success in other academic classes, including English, math, general education and occupational courses, while building self-esteem and confidence.

## RDLS 0100 - College Reading Strategies

4.5-0.0-4.5

Prerequisite: (1) Assessment testing or ENGL 0950
This course provides reading improvement instruction for students who need to reach college-level proficiency. Students improve comprehension, vocabulary, and rate using a variety of materials and software. They learn to read college texts more effectively. The course includes a general college orientation, which includes a support system to promote success.

## RDLS 1150 - College Vocabulary-

## 4.5-0.0-4.5

Prerequisite: None
This course helps students broaden their vocabularies in order to communicate more effectively in their academic, professional, and personal lives. Topics 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. This course requires numerous written assignments, so students must have basic writing skills, including grammar and spelling, in order to successfully use new vocabulary words in proper context. RDLS 1150 is only offered online.

## RDLS 1160 - Reading Rapidly and Effectively-

## 2.0-0.0-2.0

Prerequisite: (1) 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 modules that contain short readings and quizzes and 2) completing lessons using The Ultimate Speed Reader software program. Most students who complete this course at least double their reading speed while maintaining or improving their comprehension. Students 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. NOTE: 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 Learning and Tutoring Center.
RDLS 1200 - College Success Strategies $\because \backsim$
4.5-0.0-4.5

Prerequisite: None
This course promotes student success in college and life. Topics include learning styles, goal setting, time management, memory techniques, reading strategies, note-taking skills, test-taking skills, critical thinking, and communicating effectively. Upon completion, students are able to successfully meet their academic, personal, and professional goals.

## REES - Real Estate

## REES 1000 - Real Estate Principles $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: None
This course gives a general survey of real estate principles and practices. Topics 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 -

4.5-0.0-4.5

Prerequisite: None
This course familiarizes students with the basic Nebraska Real Estate Act as it applies to ownership, conveyance, and rights in real property. It also familiarizes students with the role of the agent in the relationship between the broker and client. Prior completion of REES 1000 is beneficial but not required before taking this course.

## REES 2100 - Real Estate Finance

## 4.5-0.0-4.5

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

## 4.5-0.0-4.5

Prerequisite: (1) REES 1000 or licensure
This course offers practical skill building for real estate salespersons, brokers, and others. It gives attention to the management of income-producing real property, including 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

## 4.5-0.0-4.5

Prerequisite: (1) REES 1000 or licensure
This course introduces students to the operational functions of the real estate licensee. It examines the role of the licensee in bringing parties together and creating a market for real property. Students become familiar with the marketing procedures within the real estate industry and the economic factors that cause activity in the real estate market.

## REES 2130 - Real Estate Appraisal

## 4.5-0.0-4.5

Prerequisite: (1) REES 1000 or licensure
This course analyzes and qualifies forces that create, maintain, and destroy real property values. Specifically, the course focuses on the appraisal process and methods of arriving at a logical estimated value based upon market comparison, income, 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

0.0-15.0-3.0

Prerequisite: (2) REES 1000 and instructor approval
Students apply 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. Students record tasks in a notebook for review by the supervisor and faculty sponsor to assure they develop the appropriate competencies. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## RESP - Respiratory Care Technology

## RESP 1000-Orientation to Respiratory Care

3.0-0.0-3.0

Prerequisite: (1) Acceptance into the Respiratory Care Technology program
This course provides exploration into the field of respiratory care for students who are 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 include employment opportunities, communication skills, and medical ethics.

## RESP 1010 - Introduction to Respiratory Care

3.5-3.0-4.5

Prerequisite: (1) RESP 1000
This course provides information about the manufacture, transport, and storage of medical gases. Oxygen therapy techniques are introduced. Students are instructed in the application of the following therapy modalities: aerosol and humidity therapy, incentive spirometry, resuscitation devices.

## RESP 1020 - Cardiopulmonary Anatomy and Physiology

4.5-0.0-4.5

Prerequisite: (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. Special emphasis is placed on airway structures, the mechanics of ventilation, blood gas transport, and acid-base balance.

## RESP 1030 - Respiratory Care Procedures I <br> 3.5-3.0-4.5

Prerequisite: (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

2.0-0.0-2.0

Prerequisite: (2) RESP 1010 and RESP 1020
Emphasis in this course is on obstructive lung disease. Included are common therapeutic modalities used in their treatment, laboratory values, patient assessment techniques, disease prevention, and disease management. The course includes discussions of current medical literature, physician lectures, and case presentations.

## RESP 1040 - Respiratory Care Procedures II

3.5-3.0-4.5

Prerequisite: (2) RESP 1020 and RESP 1030
The emphasis of this course is to develop skills in ventilatory management. Emphasis is placed on IPPB therapy, CPAP 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 <br> 2.0-0.0-2.0

Prerequisite: (2) RESP 1031 and RESP 1991
This course allows students to build upon experiences in both the clinic and the classroom setting. Using critical-thinking skills, the student will be able to recognize 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 will be introduced and will be referred to throughout the discussion of the pulmonary disorders.

## RESP 1042 - Pharmacology for Respiratory Care

3.0-0.0-3.0

Prerequisite: (2) RESP 1030 and RESP 1031
Emphasis in this course is on respiratory care pharmacology. The course includes general principles and administration of medications used to treat respiratory diseases as well as interaction, pharmacologic action and effect, contraindications, and side effects. Drug dosage calculations will also be reviewed during the course.

## RESP 1991 - Clinical Practicum I <br> 0.0-16.5-5.5 <br> Prerequisite: (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, incentive spirometry, medical aerosol and metered dose inhaler therapy, and medical asepsis.

## RESP 1992 - Clinical Practicum II

0.0-16.5-5.5

Prerequisite: (2) RESP 1031 and RESP 1991
The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. Emphasis is placed on chest physiotherapy, airway management, arterial blood gas puncture, bedside monitoring techniques, hyperinflation techniques, and aerosol and humidity therapy.

## RESP 1993 - Clinical Practicum III

0.0-16.5-5.5

Prerequisite: (2) RESP 1041 and RESP 1992
The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. The course provides the introduction to the adult critical care setting with emphasis on ventilator management and airway care. An observational surgery rotation is also contained in this clinical practicum.

## RESP 2100 - Advanced Respiratory Care

## 3.5-3.0-4.5

Prerequisite: (2) RESP 1040 and RESP 1992
This course covers advanced cardiopulmonary physiology and its application to 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

## 2.0-0.0-2.0

Prerequisite: (2) RESP 1041 and RESP 1992
This course assists the student in integrating critical thinking and reasoning in the pulmonary management of the acutely ill adult client. The course outlines specific pulmonary diseases and their treatment. The course also includes discussions of current medical literature and case study presentations on topics related to adult critical care.

## RESP 2120 - Cardiology and Hemodynamics <br> 3.0-0.0-3.0

Prerequisite: (2) RESP 1993 and RESP 2100
This course builds upon prior clinical experiences in the Adult Intensive Care Unit and integrates the technical knowledge used in the hemodynamic monitoring of the adult critical care patient. The course also provides insight into the structure and importance of a well-defined pulmonary rehabilitation program.

## RESP 2121 - Current Concepts IV

2.0-0.0-2.0

Prerequisite: (2) RESP 1993 and RESP 2101
This course assists students in integrating advanced-level cardiopulmonary diagnostic testing into the care plan of the adult patient. It includes physician lectures, discussions directed from current medical literature, and case study presentations on topics requiring the use of both recall and critical-reasoning skills in a clinical setting.

## RESP 2122 - Pediatric and Neonatal Respiratory Care

3.0-0.0-3.0

Prerequisite: (2) RESP 1993 and RESP 2100
This course includes the study of cardiopulmonary physiology from fetal through adolescent life. The course topics include cardiac defects, respiratory support, monitoring techniques, ventilator management, and diseases specific to neonatal and pediatric patients.

## RESP 2131 - Current Concepts V

2.0-0.0-2.0

Prerequisite: (3) RESP 2121; RESP 2122; and RESP 2994
This course introduces the student to the concepts of health care research and preparation of continuing education programs for health care professionals. Opportunities for practical experience in teamwork dynamics, team facilitation and group presentations are provided.

## RESP 2132 - Respiratory Care Seminar

## 4.5-0.0-4.5

Prerequisite: (4) RESP 2100; RESP 2120; RESP 2122; and RESP 2994
This course provides a comprehensive review for the entry-level and advancedlevel credentialing examinations administered by the National Board for Respiratory Care. Test matrices and exam content areas for selected exams will be presented.

## RESP 2994 - Clinical Practicum IV <br> 0.0-16.5-5.5

Prerequisite: (2) RESP 1993 and RESP 2101
The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. This clinical course is designed to extend upon RESP 1993 by providing clinical exposure in the adult critical care unit. Emphasis will be placed on ventilator theory and patient management in both the acute care and long-term care settings. Additional rotations are scheduled in electrocardiography and diagnostic pulmonary function testing. An introduction to computerized clinical simulation exercise is also scheduled.

## RESP 2995 - Clinical Practicum V

0.0-16.5-5.5

Prerequisite: (3) RESP 2120; RESP 2122; and RESP 2994
The student is assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. This clinical practicum is designed to provide the student with clinical exposure and opportunities to gain skills in a variety of areas, including experiences in sleep lab studies, pulmonary rehabilitation, HBO pediatrics and neonatal respiratory care, and home healthcare.

## SCET - Civil Engineering Technology

## SCET 1000-Civil Engineering Fundamentals

3.0-0.0-3.0

Prerequisite: None
This course introduces students to a wide variety of topics related to the civil engineering field. It includes historical and contemporary engineering applications. Students investigate a variety of testing, evaluation, and classifications of methods and materials. The course covers the analysis and interpretation of topographic maps and aerial photographs.

## SCET 1030 - Project Management

4.5-0.0-4.5

Prerequisite: (1) SCET 1000 or instructor approval
Students gain a working knowledge of common project management practices and techniques to deliver successful civil engineering projects.

## SCET 1040 - Introduction to Environmental Engineering

## 3.0-0.0-3.0

Prerequisite: (2) SCET 1000 and CHEM 1010; or instructor approval
This course introduces students to the principles of environmental engineering, including water quality, atmospheric quality, pollution prevention, solid and hazardous wastes engineering, and waste management systems.

## SCET 1050 - Building Construction

## 3.0-0.0-3.0

Prerequisite: None
Students become familiar with the materials and types of construction used for the various parts of buildings. The course covers building code requirements; steel, timber, and masonry construction; structures of the common forms; lift-slab and tilt-up construction; and developments in the building construction field.

## SCET 1060 - Engineering Geology

## 3.0-0.0-3.0

Prerequisite: (1) SCET 1000 or instructor approval
This course is an introduction to the principles of geotechnical engineering. It covers the basics of rock and soil mechanics, including slope stability, hydraulic processes, and various natural hazards and the engineering controls needed to withstand these disasters.

## SCET 1070 - Contracts and Specifications

3.0-0.0-3.0

Prerequisite: None
Students learn about the law of contracts and its application to engineering projects. The course features construction contracts and contracts for engineering services, along with procurement documents and procedures. Students study types of specifications and specification writing techniques.

## SCET 1080 - Estimating Construction Costs

3.0-0.0-3.0

Prerequisite: None
This course includes an interpretation of construction drawings and specifications. Students calculate material take-offs, quantity estimates, and costs of materials and labor in residential and commercial building projects.

## SCET 1090 - ArcGIS Fundamentals

4.5-0.0-4.5

Prerequisite: None
This course introduces students to the fundamentals of ArcGIS GIS software and general geographic information system concepts, including data editing,
cartographic map production, and geospatial data analysis.

## SCET 1120 - AutoCAD Essentials

9.0-0.0-9.0

Prerequisite: None
This course introduces basic computer-aided design 2-D drawing techniques using AutoCAD software. It includes drawing terminology, AutoCAD menus, text creation and editing, dimensioning, plotting and geometric construction, and file manipulation techniques. Students also learn model space and layout, viewports, polylines, multilines and splines, annotation with text, use of attributes for data storage, and extraction and xrefs.

## SCET 1130 - Beginning REVIT (Structure)

4.0-0.0-4.0

Prerequisite: (1) SCET 1050 or instructor approval
Hands-on experience with Autodesk REVIT Structure software introduces students to the basic functions of building information modeling and REVIT concepts. Students concentrate on structural building components (grids, columns, beams, slabs, foundations) and produce construction documents from 3-D models.

## SCET 1150 - AutoCAD Civil 3-D

## 9.0-0.0-9.0

Prerequisite: (1) SCET 1120 or instructor approval
This course covers nearly all of the objects and commands needed to start using AutoCAD Civil 3-D. Students focus on tools designed specifically for civil engineers, including utility, site, and roadway plans; profile; and section sheets.

## SCET 1200 - Surveying Fundamentals

6.5-0.0-6.5

Prerequisite: (1) MATH 1310
Students study fundamental concepts of surveying, definitions, errors, computations, and field notes. The course covers theory and practice of measuring distance, measurement of different levels of elevation, use and care of leveling instruments, leveling methods, and field practice.

## SCET 2010 - Fluid Mechanics

## 4.0-0.0-4.0

Prerequisite: (1) MATH 1310 or instructor approval
This course emphasizes fluid properties, hydrostatics, and fluid flow properties; flow through pipes and open channels; flow measurements; and basic theoretical and applied fluid mechanics.

## SCET 2220 - Transit and Traverse Surveying

6.5-0.0-6.5

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 course computations. It covers mathematics applications in daily surveying duties.

## SCET 2240 - Mapping, Staking, and GPS

6.5-0.0-6.5

Prerequisite: (2) SCET 2220 and INFO 1001
This course introduces the topics of topographic mapping and route location, understanding design data and drawing, and using complex design information to create field data for construction staking. Students learn global positioning system basics, concepts, and applications. The course also covers land division types and ethics in business and surveying.

## SCET 2300 - Structures I

4.0-0.0-4.0

Prerequisite: (2) MATH 1430 and PHYS 1010; or instructor approval
This course focuses on the basic principles of statics, free body diagrams, equilibrium, force systems, and friction.

## SCET 2310 - Structures II

4.0-0.0-4.0

Prerequisite: (1) SCET 2300 or instructor approval
This course is an introduction to the strength of materials. It includes engineering materials and their properties, stress, and deformation.
SCET 2320 - Structures III
4.0-0.0-4.0

Prerequisite: (1) SCET 2310 or instructor approval
This course continues the study of strength of materials. It includes elementary structural analysis (e.g., timber and steel structures), shear and moment diagrams, deflections, beam analysis, and elementary design problems.

## SCET 2410 - Civil Site Design

4.5-0.0-4.5

Prerequisite: (2) SCET 1000 and SCET 1060; or instructor approval
Students gain logical and practical design criteria for civil site project design, including site grading and earthwork, hydrologic analysis, hydraulic systems, and stormwater management.

## SCET 2420 - Roadway Design

4.5-0.0-4.5

Prerequisite: (2) SCET 1000 and SCET 1060; or instructor approval
This course introduces students to a wide variety of roadway design concepts, including geometric design, traffic volume/capacity analyses, queuing theory, traffic control devices, and pavement design.

## SCET 2981 - Internship

0.0 - variable - 3.0

Prerequisite: (2) Completion of at least 30.0 credits in civil engineering courses and instructor approval
Students participating in internships are expected to work under the supervision of qualified engineers in areas related to their training in civil engineering. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## SCIE - Science

SCIE 1010 - Introduction to Physical Science- $\begin{aligned} \\ \end{aligned}$

## 5.0-3.0-6.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
Corequisite: SCIE 1010L
This course is a survey in physical science with emphasis on scientific processes. It emphasizes the chemical and physical principles needed to better understand the world. The course may also include topics from astronomy, geology, and meteorology. Beginning 14/FA, students registering for this course must also register for SCIE 1010L, which is the laboratory component of the course.

## SCIE 1010L - Introduction to Physical Science Lab <br> 0.0-0.0-0.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
Corequisite: SCIE 1010
This is the lab component for SCIE 1010. The lab activities are designed to emphasize the chemical and physical principles needed to better understand the world. The course may also include topics from astronomy, geology, and meteorology. Students registering for this course must also register for SCIE 1010 which is the lecture component of the course.

SCIE 1030 - Energy Systems and Sustainability - Conservation and Design 4.5-0.0-4.5

Prerequisite: (1) College-level reading, writing, and math proficiency. High school math (basic algebra skills) and high school science are recommended.
This course is an introduction to energy systems. It presents the current energy sources and uses (primarily from fossil fuels) as well as alternative energy systems, their uses, and potential. The course focuses on 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 includes projects and group learning activities. It is recommended that high school math (basic algebra skills) and high school science be completed before taking this course.

## SCIE 1300 - Astronomy - ©

4.5-0.0-4.5

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency
This course is an introductory course in astronomy that 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 ${ }^{-3}$

## 0.0-4.5-1.5

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency

## Corequisite: SCIE 1300

This lab course parallels the astronomy lecture course SCIE 1300. Focusing on inquiry, students study astronomical topics and learn to ask scientific research questions using online data from NASA and other sources. Topics include the motion of constellations, observing solar behavior, classifying galaxies, analyzing orbits of moons, stellar spectra, and characteristics of exosolar planets. Students participate in virtual science conferences, critically review research, and complete astronomical observations through field exercises. NOTE: The corequisite SCIE 1300 can be taken concurrently or have previously been completed.

## SCIE 1400 - Introduction to Meteorology

5.0-3.0-6.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing and math proficiency

## Corequisite: SCIE 1400L

This course introduces and explores the dynamic nature of weather phenomena that impact our daily activities, travel, and industry. It covers atmospheric structure, clouds, precipitation, fronts, wind, storms, climate, and pollution. Topics include current issues ranging from aviation accidents and global warming to alternate energy sources. Beginning 14/FA, students registering for this course must also register for SCIE 1400 L which is the laboratory component of the course.

## SCIE 1400L - Introduction to Meteorology Lab

0.0-0.0-0.0

Prerequisite: (2) MATH 0931 or MATH 0960; and college-level reading, writing, and math proficiency

## Corequisite: SCIE 1400

This is the lab component for SCIE 1400. Laboratory activities focus on atmospheric structure, clouds, precipitation, fronts, wind, storms, climate, and pollution. Students registering for this course must also register for SCIE 1400 which is the lecture component of the course.

## SCIE 1500 - Early Undergraduate Research

1.0-3.0-2.0

Prerequisite: (1) Instructor approval
This student research course is for motivated, creative, and inquisitive science students. It introduces students to the process of science. The objective of the course is for students to develop their own research question and then begin the process of answering that question by doing a critical review of the scientific literature, designing and carrying out scientific experiments, analyzing the collected data, and then communicating the results. This course can be taken by students in any of the science disciplines.

## SCIE 1900 - Special Topics in Science

## Variable

Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other science courses, depending on interest and relevancy to curriculum.

## SLIS - Sign Language Studies

## SLIS 1010 - American Sign Language I

## 5.0-3.0-6.0

Prerequisite: (1) Assessment testing; or ENGL 0960 and RDLS 0100; or collegelevel reading assessment test score
This course acquaints students with American Sign Language, develops visual acuity, and builds comfort with the use of body and facial expressions to convey information. It uses a practical approach to teaching vocabulary, grammar, and the cultural aspects through real-life conversational experiences. Students further acclimate to the new modality of this language via classroom experiences conducted without voice. The course introduces additional information about interacting with the deaf community via outside community events, additional readings, and lab activities.

## SLIS 1020 - American Sign Language II

## 5.0-3.0-6.0

Prerequisite: (1) SLIS 1010 or departmental approval
This course emphasizes expansion and refinement of the fundamental comprehension and production skills. It addresses additional functional grammatical structures and targeted lexical items and stresses spontaneous, interactive use of American Sign Language through discussion of deaf-related events and activities. Students continue the study of information related to everyday life experiences of deaf Americans and deaf people elsewhere in the world. The course fosters receptive skills through interactive ASL lessons.

## SLIS 1030 - American Sign Language III <br> \section*{5.0-3.0-6.0}

Prerequisite: (1) SLIS 1020 or department approval
This course provides additional opportunities to expand students' ability to produce and comprehend advanced sign language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features of the language. They use advanced conversational skills and learn to identify grammatical non-manual signals and markers.

## SLIS 1040 - American Sign Language IV

5.0-3.0-6.0

Prerequisite: (2) SLIS 1030 and SLIS 1150; or departmental approval
This course provides additional opportunities to expand students' ability to produce and comprehend advanced sign language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features of the language. The course bases activities on the cultural values of the deaf community.

## SLIS 1140 - Orientation to Deafness

4.5-0.0-4.5

Prerequisite: None
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

4.5-0.0-4.5

Prerequisite: (1) SLIS 1010
This course introduces students to the American deaf community. It examines the interrelationship between language and culture as well as a study of socialization, norms, and traditions inherent in the deaf community. The course also addresses the preservation of American Sign Language and its role in establishing a sense of cultural identity.

## SNRG - Sustainable Energy Technology

## SNRG 1110 - ENERGY STAR for Commercial Buildings <br> 3.5-0.0-3.5 <br> Prerequisite: None

This course introduces students to the benefits and barriers of commercial building energy efficiency through an in-depth look into EPA's ENERGY STAR program. Topics include current trends in commercial building energy efficiency, transforming the market with ENERGY STAR, ENERGY STAR guidelines for energy management, rating building energy efficiency with Portfolio Manager, best energy efficiency practices, engaging employees in energy conservation, and tracking energy savings and greenhouse emissions reductions over time. This course includes hands-on learning opportunities such as measuring the energy use of an actual building and identifying energy efficiency opportunities.

## SNRG 1120 - Weatherization Installer Fundamentals

## 4.0-0.0-4.0

Prerequisite: None
This course presents theory, methods, and techniques for installation of weatherization materials. It focuses on blower doors, combustion safety, building science, safety, and hand/power tools. It also includes the basics of mobile home and multi-family weatherization.

## SNRG 1121 - Weatherization Installer Intermediate

4.0-0.0-4.0

Prerequisite: (1) SNRG 1120
This course presents theory, methods, and techniques for installation of weatherization materials. It focuses on demonstration and hands-on application of weather-stripping (air sealing), insulation, mechanical ventilation, caulking, and door and window installation. It features more difficult weatherization procedures, such as basements and crawl spaces.

## SNRG 1124 - Weatherization Installer - Mobile Homes

3.0-0.0-3.0

Prerequisite: (2) SNRG 1120 and SNRG 1121
This course takes new and experienced weatherization workers through several modules, introducing and expanding upon basic technical and safety skills essential for effective mobile home weatherization. Topics include introduction to mobile homes; duct diagnostics and repair; belly, sidewall, and roof retrofit; heating systems; and other mobile home-specific competencies and terminology.

## SNRG 1125 - Combustion Appliance Zone (CAZ) Training

1.5-0.0-1.5

Prerequisite: (2) SNRG 1120 and SNRG 1121
This course covers the testing and documentation of combustion appliance zone depressurization tests. The training consists of classroom instruction and field demonstrations. Field training demonstrates the testing protocols and allows students to engage in proper use of the equipment while focusing on pre- and post-safety inspections and gas leak detection relevant to the combustion appliances. Students receive an advanced understanding of air leakage and air pressure dynamics, CAZ depressurization tests, calculation of minimum ventilation levels, and proper reporting requirements.

## SNRG 1126 - Weatherization Crew Chief

2.5-0.0-2.5

Prerequisite: (3) SNRG 1120; SNRG 1121; and SNRG 1125
This course takes new and experienced weatherization crew chiefs through several modules introducing and expanding upon basic safety, proficiency, and productivity skills essential for effective crew management. Topics include the role of crew chief; communication and leadership skills; organizational skills, including the tracking/maintenance of equipment and the tracking/warehousing of materials; and technical expertise, including building/safety codes, quality control, safe work practices, and general weatherization competencies.

## SNRG 1130 - Home Energy Auditor - Single Family

## 4.5-0.0-4.5

Prerequisite: (3) SNRG 1120; SNRG 1121; and SNRG 1125
Students learn home energy auditing concepts and techniques and apply them in lab exercises. Concepts include savings payback, building science, infiltration theory, degree days, and retrofit projects. Techniques include blower door-guided air leakage test, baseload measurement, heat systems testing and analysis, and measuring and working with a field data collection form.

## SNRG 1200 - Introduction to Renewable Energy

## 4.0-0.0-4.0

Prerequisite: None
This course is the foundation for solar energy and other renewable energy courses. It provides definitions and concepts for passive and active solar energy systems. Active solar includes solar air, solar water, and solar electric. The course covers applications of solar principles and practices for daylighting, space heating, hot water, and electrical. Additional topics include wind, biomass, sustainability, and residential and commercial building and energy conservation.

## SNRG 1210 - Solar Site Selection

2.0-0.0-2.0

Prerequisite: None
This course provides training related to site selection of solar systems. It reviews principles of passive solar as an introduction to the proper location (roof, wall, or ground) that is critical to a successful active solar installation. The training includes a visit to a solar installation and use of a site selector. There is a safety briefing and system overview before climbing any structures. Activities vary according to the experience and needs of the students.

## SNRG 1212 - Solar Electric Seminar

## 1.0-0.0-1.0

Prerequisite: None
This course provides knowledge of solar electric systems (also called photovoltaics or PV). Topics include on-grid and off-grid systems, overall design fundamentals including power load calculations, inverter selection, disconnects, wiring for grid intertie, charge controller technology, battery types and sizing, storage, wiring for stand-alone and related, and topics related to solar electric systems.

## SNRG 1213 - Solar Thermal Seminar <br> 1.0-0.0-1.0 <br> Prerequisite: None

This course provides knowledge of solar thermal systems (including solar air and water). Topics include collector design and placement; principles of heat transfer and air and fluid movement; ventilation and register placement; blower selection; various applications of closed loop, drainback, and storage designs; pump selection; controller function; and electrical safety.

## SNRG 1220 - Solar Electric Systems Design

4.5-0.0-4.5

Prerequisite: None
This course provides a working knowledge of solar electric systems (also called photovoltaics or PV). Topics include on-grid and off-grid systems, overall design fundamentals (including power load calculations, inverter selection, disconnects, wiring for grid intertie, charge controller technology, battery types and sizing, storage, and wiring for stand-alone), and related concepts. The class meets the needs of residential and light commercial applications. Installation training is in three separate seminars of 1.5 hours each (SNRG 1231, SNRG 1232, and SNRG 1233). Activities include module siting, installation and safety, on-grid wiring and safety, and off-grid wiring, battery operation, and safety.

## SNRG 1230 - Solar Electric Install - Overview

## 1.0-0.0-1.0

Prerequisite: None
This course provides installation training related to solar electric systems. It includes a site visit to an installation in progress or already completed. Students closely observe the system components and participate if job site activities allow. The beginning of the course includes a safety briefing and system overview. Work activities vary according to the planning of the seminar.

## SNRG 1231 - Solar Electric Install 1 - Modules <br> 1.5-0.0-1.5 <br> Prerequisite: None

This course is one of three that provide installation training for SNRG 1220 Solar Electric Systems Design. It focuses on solar electric module siting and placement and reviews roof, ground, and pole mounting with one selected for hands-on practice. Safety topics include proper module handling techniques, disconnects, grounding, and wiring to the inverter.

## SNRG 1232 - Solar Electric Install 2-Grid Tie

## 1.5-0.0-1.5

Prerequisite: None
This course is one of three that provide installation training for SNRG 1220 Solar Electric Systems Design. It focuses on inverter placement, wiring, and utility disconnect requirements. Safety topics include proper circuit breaker and conductor sizing, placement of disconnects, grounding, and inverter wiring.

## SNRG 1233 - Solar Electric Install 3 - Off Grid

## 1.5-0.0-1.5

Prerequisite: None
This course is one of three that provide installation training for SNRG 1220 Solar Electric Systems Design. It focuses on off-grid design considerations including battery placement, dc wiring, and ac connections. Safety topics include proper circuit breaker and conductor sizing, placement of disconnects, grounding, and inverter wiring.

## SNRG 1240 - Solar Air Systems Design

## 4.5-0.0-4.5

Prerequisite: None
This course provides a working knowledge of solar warm air systems. Topics include collector design and placement, principles of heat transfer and air movement, ventilation and register placement, blower selection, controller function, and electrical safety. The class meets the needs of residential and light commercial applications. Installation training is in three separate seminars of 1.5 hours each (SNRG 1251, SNRG 1252, and SNRG 1253) covering collector siting, installation, and safety.

## SNRG 1250 - Solar Air Install - Overview

## 1.0-0.0-1.0

Prerequisite: None
This course provides installation training related to solar warm air systems. It includes a site visit to an installation in progress or already completed. Students closely observe the system components and participate if job site activities allow. The beginning of the course includes a safety briefing and system overview. Work activities vary according to the planning of the seminar.

## SNRG 1251 - Solar Air Install 1 - Collectors <br> 1.5-0.0-1.5 <br> Prerequisite: None

This course is one of three that provides installation training for SNRG 1240 Solar Air Systems Design. It focuses on solar warm air collector siting and placement and reviews roof, ground, and side-wall mounting with one selected for hands-on practice. Safety topics include roof practices, proper collector handling techniques, and waterproofing roof or wall penetrations.

## SNRG 1252 - Solar Air Install 2 - Ventilation

1.5-0.0-1.5

Prerequisite: None
This course is one of the three that provides installation training for SNRG 1240 Solar Air Systems Design. It focuses on solar warm air ventilation, ducting, and register placement. Safety topics include roof practices, attic movement, wall penetrations, and insulation protection.

## SNRG 1253 - Solar Air Install 3 - Blower

1.5-0.0-1.5

Prerequisite: None
This course is one of three that provides installation training for SNRG 1240 Solar Air Systems Design. It focuses on blower placement, ventilation flow rates, controller, and sensor placement. Safety topics include roof practices, attic movement, insulation protection, electrical wiring, and grounding.

## SNRG 1260 - Solar Water Systems Design

## 4.5-0.0-4.5

Prerequisite: None
This course provides a working knowledge of solar hot water systems. Topics include collector design and placement; principles of heat transfer and fluid movement; various applications of closed loop, drainback and storage designs; pump selection; controller function; and electrical safety. The class meets the needs of residential and light commercial applications. Installation training is in three separate seminars of 1.5 hours each (SNRG 1271, SNRG 1272, and SNRG 1273) and covers collector siting, installation, and safety.

## SNRG 1265 - Solar Hydronic Systems

## 4.5-0.0-4.5

Prerequisite: None
This course gives students an understanding of solar hot water heating with a focus on hydronic applications. It reviews the components and functions of solar hot water systems and evaluates solar drainback and closed loop designs for residential and light commercial applications. The course demonstrates heat storage and distribution using various types of heat exchangers and radiant tubing. Installation training is in three separate seminars of 1.5 hours each (SNRG 1271, SNRG 1272, and SNRG 1273) covering collector siting, installation, and safety.

## SNRG 1270 - Solar Water Installation - Overview <br> 1.0-0.0-1.0 <br> Prerequisite: None

This course provides installation training related to solar hot water systems. It includes a site visit to an installation in progress or already completed. Students closely observe the system components and participate if job site activities allow. The beginning of the course includes a safety briefing and system overview. Work activities vary according to the planning of the seminar.

## SNRG 1271 - Solar Water Install 1 - Panels

## 1.5-0.0-1.5

Prerequisite: None
This course is one of three that provides installation training for SNRG 1260 Solar Water Systems Design. It focuses on solar hot water collector siting, placement, and pressure testing and reviews roof, ground, and side-wall mounting with one selected for hands-on practice. Safety topics include roof practices, proper collector handling techniques, and waterproofing roof or wall penetrations.

## SNRG 1272 - Solar Water Install 2 - Storage

1.5-0.0-1.5

Prerequisite: None
This course is one of three that provides installation training for SNRG 1260 Solar Water Systems Design. It focuses on solar hot water loop piping, insulation, and tank placement. Safety topics include sweating techniques, roof practices, attic movement, wall penetrations, and insulation protection.

## SNRG 1273 - Solar Water Install 3 - Piping

## 1.5-0.0-1.5

Prerequisite: None
This course is one of three that provides installation training for SNRG 1260 Solar Water Systems Design. It focuses on solar storage loop piping, pressure testing, controller, and sensor placement. Safety topics include sweating techniques, roof practices, attic movement, wall penetrations, and insulation protection.

## SNRG 1410 - Introduction to Electric Vehicles

## 4.0-0.0-4.0

Prerequisite: None
This course familiarizes students with an overview of the emerging world of electric vehicles with the object of preparing them for a career in a new transportation paradigm, one that is less dependent on petroleum and more dependent on electric power.

## SNRG 2900 - Special Topics in Sustainable Energy Variable

Prerequisite: None
This course permits instruction in special content areas not included in other sustainable energy courses.

## SOCI - Sociology

SOCI 1010 - Introduction to Sociology $\mathcal{B}$, ©
4.5-0.0-4.5

Prerequisite: None
This course is an introduction to the scientific study of society and human social behavior. It focuses on the concepts of research methods and findings, sociological theories, society, institutions, groups, social structure, culture, interaction, socialization, social problems, inequality, and change. Reading assessment and college-level reading skills are recommended for success in this course.

## SOCI 1050 - Sociology of Healthcare -3

## 4.5-0.0-4.5

Prerequisite: None
This course is a systematic attempt to relate sociological concepts to the fields of physical and mental health and illness. It provides an overview of socio-cultural aspects of health and includes community and healthcare, medical education, and the hospital as social institutions. Reading assessment and college-level reading skills are recommended for success in this course.

## SOCI 1100 - Native American Studies - B

4.5-0.0-4.5

Prerequisite: None
This course introduces the oral traditions, rituals, life-ways, and world views that comprise the diverse cultural traditions of Native American peoples and includes both historical and contemporary experiences.

## SOCI 1250 - Introduction to Anthropology ${ }^{*} 0$

4.5-0.0-4.5

Prerequisite: None
This course provides an introduction to the study and methods of anthropology and the methodologies used to study human societies and cultures. It covers ancient to present societies. Reading assessment and college-level reading skills are recommended for success in this course.

SOCI 2050 - Current Social Problems $\checkmark$ -
4.5-0.0-4.5

Prerequisite: None
This course provides an introductory consideration of several major current social issues. It is designed to improve students' 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. Reading assessment and college-level reading skills are recommended for success in this course.

## SOCI 2060 - Multicultural Issues $\triangleleft$

## 4.5-0.0-4.5

Prerequisite: None
This course focuses on the scientific sociological 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 culturally marginalized populations. In addition, the course explores such emerging minorities as those based on ability, gender, sexual orientation, appearance, and age. It pays special attention to sociological theories of subordinate and dominant group relations. Reading assessment and college-level reading skills are recommended for success in this course. NOTE: SOCI 1010 or SOCI 2050 is recommended prior to taking SOCI 2060.

## SOCI 2110 - Introduction to Gerontology ${ }^{-3}$

4.5-0.0-4.5

Prerequisite: None
This course provides an introduction to the social aspects of aging. It places special significance on 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. Reading assessment and college-level reading skills are recommended for success in this course.

## SOCI 2150 - Survey of Human Sexuality - <br> 4.5-0.0-4.5

Prerequisite: (1) SOCI 1010 or PSYC 1010
This course is a survey of the topic of human sexuality. It presents materials concerning the biological, psychological, and socio-cultural facets of sexual behavior. (Cross-listed as PSYC 2150)

## SOCI 2160 - Marital and Family Relationships $\checkmark$ © <br> 4.5-0.0-4.5

Prerequisite: None
This course develops an understanding of the social role of relationships and families. Topics include courtship and preparation for marriage, conflict situations and adjustments between spouses, parent-child relationships, social change and acceptance of alternatives to traditional heterosexual marriages, the family within the community, and consequences of disintegration of the family unit. Reading assessment and college-level reading skills are recommended for success in this course. (Formerly Marriage and the Family)

## SOCI 2310 - Criminology ${ }^{-3}$

4.5-0.0-4.5

Prerequisite: (1) SOCI 1010
This course examines crime and criminology from a broad sociological perspective. Topics include definitions of crime, the various causes of criminal behavior, theoretical perspectives for studying socially deviant behavior, and systems of criminal justice.

## SOCI 2311 - Juvenile Justice $-\mathcal{B}$

4.5-0.0-4.5

Prerequisite: (1) SOCI 1010
This course examines juvenile delinquency from a sociological and practical perspective. Topics include definitions of juvenile delinquency; theoretical explanations; the various causes of juvenile delinquency; and methods of prevention, treatment, and control.

## SOCI 2450 - Social Psychology- ${ }^{\text {© }}$

4.5-0.0-4.5

Prerequisite: (1) SOCI 1010 or PSYC 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 $\smile$

4.5-0.0-4.5

Prerequisite: None
This course explores the psychological and sociological authenticity of selected popular psychology, social issues, and self-help books. It emphasizes theoretical foundation, sociological conditions and variables, and therapeutic or pseudotherapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended. (Cross-listed as PSYC 2550)

SOCI 2650 - Research Methods $\backsim \nexists$
4.5-0.0-4.5

Prerequisite: None
This is an introductory course in research methods and design. The course is comprehensive, and, as such, students examine the entire research process including, formulating research questions; sampling; measurement (surveys, scaling, qualitative, and quantitative); research design (experimental and quasiexperimental); data analysis; and research writing. It 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 students of research methods in several areas of study (e.g., psychology, business, nursing, social work, political science, and education). (Cross-listed as PSYC 2650)

## SOCI 2900 - Special Topics in Sociology <br> Variable <br> Prerequisite: None

This course permits instruction in special content areas that are not included in other Sociology courses.

## SOWK - Social Work

## SOWK 1010 - Introduction to Social Work - B

4.5-0.0-4.5

Prerequisite: None
This course is for students who want to explore a possible major in social work and/or to learn more about social work and its functions in society. Students examine historical and current issues and problems in social welfare, social services, and the social work progression. The course focuses on the values, beliefs, and goals of social work in the United States.

## SOWK 1500 - Social Work and Civic Engagement

4.5-0.0-4.5

Prerequisite: None
This course is designed to acquaint students with the social work profession, professional roles and functions, and social services delivery systems. Students have an opportunity to observe and participate in social services activities within Nebraska and lowa communities incorporated with didactic experiences. Students have an opportunity to explore their vocational aptitude for social work practice via interactive encounters with clients and helping professionals.

## SOWK 2120 - Race, Class, and Gender

## 4.5-0.0-4.5

Prerequisite: None
This course examines the effects of race, class, and gender on social policy and social injustice. The focus is on institutional manifestations of racism, classism, and sexism, and how these are interconnected and are mutually reinforcing. The consequences of institutionalized oppressions are examined at the individual, group, family, and societal levels.

## SPAN - Spanish

## SPAN 0100 - Introduction to the Study of Spanish

2.0-0.0-2.0

Prerequisite: None
This class is an introduction to the study of the Spanish language that focuses on Spanish grammar components. It reviews basic English grammar and teaches basic Spanish vocabulary and grammar. The course is for those with no previous foreign language study.

## SPAN 1050 - Spanish for Business IB

## 4.5-0.0-4.5

Prerequisite: None
Those in business are finding the need to interact more and more with Spanishspeaking customers. To better serve these customers, it is important to have a grasp of Spanish language and culture. This course provides the necessary skills to communicate in Spanish at a beginning level. NOTE: It is strongly recommended that students who have no prior experience in Spanish take SPAN 1110 or place out of SPAN 1110 using the Spanish placement test prior to enrolling in SPAN 1050.

## SPAN 1051 - Spanish for Business II-B

4.5-0.0-4.5

Prerequisite: (1) SPAN 1050
Students continue to develop skills in order to communicate at a more advanced level of Spanish in business settings.

## SPAN 1060 - Spanish for Healthcare I-B

## 4.5-0.0-4.5

## Prerequisite: None

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. The course provides the necessary skills to communicate in Spanish at a beginning level. NOTE: It is strongly recommended that students who have no prior experience in Spanish take SPAN 1110 or place out of SPAN 1110 using the Spanish placement test prior to enrolling in SPAN 1060.

## SPAN 1061 - Spanish for Healthcare IIß

4.5-0.0-4.5

Prerequisite: (1) SPAN 1060
Students continue to focus on the skills begun in Spanish 1060 such that they can communicate with Spanish clients at a more advanced level.

## SPAN 1110 - Elementary Spanish I-B, © 7.5-0.0-7.5

Prerequisite: None
This is the first of two introductory courses where students begin to learn the fundamentals of Spanish. It stresses comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary. The course includes nouns, adjectives, and present tense as well as a study of Spanish-speaking cultures.

## SPAN 1120 - Elementary Spanish II $७$, ©

7.5-0.0-7.5

Prerequisite: (1) SPAN 1110
Students continue to focus on the skills begun in SPAN 1110. The course covers past tenses and subjunctive mood as well as Spanish-speaking cultures.

## SPAN 1410 - Spanish for High Beginners I 7.5-0.0-7.5

Prerequisite: (1) Strong oral skills in Spanish; instructor referral or approval; the Spanish language placement examination; or previous beginning-level coursework in Spanish
This is the first of two courses for students 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. The course is for students who are too advanced for SPAN 1110 but who are also not quite prepared for SPAN 1120. It emphasizes grammar, vocabulary acquisition, speaking, listening, and culture. Students focus on development of reading and writing skills. The course includes nouns, pronouns, and adjectives, as well as present, progressive, preterit, and imperfect indicative tenses. This class is conducted in Spanish.

## SPAN 1411 - Spanish for High Beginners II

## 7.5-0.0-7.5

Prerequisite: (1) SPAN 1410
This is the second of two courses for students considered to be high beginners in Spanish. The course is designed for students who are too advanced for SPAN 1110 but who are also not quite prepared for SPAN 2110. It emphasizes grammar, vocabulary acquisition, speaking, listening, and culture. Students focus on development of reading and writing skills. The course includes nouns, pronouns, adjectives, subjunctive mood tenses, commands, perfect indicative and subjective mood tenses, and conditional and future tenses. This class is conducted in Spanish.

## SPAN 1810 - Spanish Study Abroad

## Variable

Prerequisite: (1) SPAN 1110; SPAN 1120; or an equivalent course subject to instructor approval
This course begins on campus and includes travel to a Spanish-speaking country later in the quarter. Students research the Spanish-speaking country to be visited and present information gathered to peers. The class then visits the cities and monuments of the country. Students use the Spanish acquired in the classroom to communicate in everyday situations in hotels, restaurants, cafes, and on tours, and they are able to try a new type of cuisine and lifestyle. Immersion in the culture enables students to experience diverse cultural practices, culinary habits, music styles, and dance forms.

## SPAN 1900-Special Topics in Spanish I <br> Variable <br> Prerequisite: None

This course permits instruction in special content areas not included in other Spanish courses. Topics include Spanish for social service personnel and courses examining specific cultures.

SPAN 2050 - Intermediate Spanish for Business I-B
4.5-0.0-4.5

Prerequisite: (1) SPAN 1051
This course reinforces the skills learned in SPAN 1050 and 1051. It is taught primarily in Spanish and prioritizes oral communication.

SPAN 2051 - Intermediate Spanish for Business IIB

## 4.5-0.0-4.5

Prerequisite: (1) SPAN 2050
This course reinforces the skills learned in SPAN 2050. It is taught primarily in Spanish and prioritizes oral communication.

## SPAN 2060 - Intermediate Spanish for Healthcare IB

## 4.5-0.0-4.5

Prerequisite: (1) SPAN 1061
This course is a continuation of the skills learned in SPAN 1060 and SPAN 1061. This course is taught primarily in Spanish and is focused on oral communication.

## SPAN 2061 - Intermediate Spanish for Healthcare IIß

4.5-0.0-4.5

Prerequisite: (1) SPAN 2060
This course reinforces and expands the skills learned in Intermediate Spanish for Medical Personnel I. It is taught primarily in Spanish and prioritizes oral communication. (Formerly Intermediate Spanish for Medical Personnel II)

## SPAN 2110 - Intermediate Spanish IB

4.5-0.0-4.5

Prerequisite: (1) SPAN 1051; SPAN 1061; and SPAN 1120
This course builds on previously attained grammar and stresses vocabulary building. It presents the perfect, past subjunctive, future, and conditional tenses as well as commands. It is taught primarily in Spanish.

## SPAN 2120 - Intermediate Spanish IIß

4.5-0.0-4.5

Prerequisite: (1) SPAN 2110 or equivalent
This course continues the grammar review of Intermediate Spanish I and introduces literary readings. Classes are conducted in Spanish.

## SPAN 2210 - Conversation Skills I

4.5-0.0-4.5

Prerequisite: (1) SPAN 2120
To truly understand Spanish, one must be comfortable speaking it. This course develops the skills needed to hold a beginning conversation in Spanish. Readings and video presentations on Spanish-speaking culture and civilization are used as topics for class conversations. The class is conducted entirely in Spanish and emphasizes conversation, reading, writing, and comprehension.

## SPAN 2220 - Conversation Skills II

4.5-0.0-4.5

Prerequisite: (1) SPAN 2210
This course develops the skills needed to hold an intermediate conversation in Spanish. It uses readings and video presentations on Spanish-speaking culture and civilization for class conversations. It is conducted entirely in Spanish and emphasizes conversation, reading, writing, and comprehension at a high intermediate level.

## SPAN 2480 - Cinematica

4.5-0.0-4.5

Prerequisite: (1) SPAN 2120 or instructor approval
Students view, discuss, and analyze Spanish and Latin American films, gaining insight into Hispanic culture. Classes conducted in Spanish.

## SPAN 2490 - Introduction to Latin American Literature

## 4.5-0.0-4.5

Prerequisite: (1) SPAN 2120
This course is a general survey of Spanish-American literature. It covers various genres from pre-Columbian literature through present day. Through close critical readings of literary texts, students attempt to discern the relationship of each
writer to the particular cultural, political, and historical context and study the means by which the author attempts to articulate the Spanish-American experience and identity through writing.

## SPAN 2900 - Special Topics in Spanish II

Variable
Prerequisite: (2) SPAN 2120 and ability to converse in basic Spanish
This course permits instruction in special content areas not included in other Spanish courses. Topics include advanced grammar study, intensive conversation and pronunciation, and period literature. It is taught entirely in Spanish.

## SPAN 2981 - Spanish for Business Internship

Variable
Prerequisite: (1) SPAN 2051
This internship provides students with the opportunity to work in a business setting where Spanish is used. It prepares business students to use Spanish in the workplace and/or to expose students to a bilingual/international business setting. To develop an internship to meet their academic and career goals, students must meet with their faculty advisor. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## SPAN 2982 - Spanish for Healthcare Internship

Variable
Prerequisite: (1) SPAN 2061
The internship provides the opportunity to work in a medical setting that offers Spanish interpretation experience. To meet academic and career objectives, students must meet with program faculty prior to enrollment. Based on state guidelines, students must complete 40 hours of work for each credit hour. (Formerly Spanish for Medical Personnel Internship)

## SPCH - Speech

## SPCH 1110 - Public Speaking $\cup$, ©

4.5-0.0-4.5

Prerequisite: None
This course provides both theoretical basis and practical instruction for speaking effectively in public. Topics 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. Placement at the English 1010 level is suggested for student success in this course.

## SPCH 1120 - Argumentation and Debate

4.5-0.0-4.5

Prerequisite: (1) SPCH 1110; ENGL 1020; PHIL 1100; or instructor approval
Students experience a practical approach to the rudiments of argumentation and the debate. This course tests students' ability to critically research, listen, speak, think, and argue in intelligent, logical discourse. Students understand and apply the art of debate. The course is for students who have career goals in law, business, or political science professions.

## SPCH 1220 - Communication in Small Groups

4.5-0.0-4.5

Prerequisite: None
This course provides students with theories of small group communication and small group decision making, and it provides a non-threatening arena for the practice of these processes within the small group. Students who work or expect to work in small groups or teams in the workplace benefit from this course.

## SPCH 1300 - Interpersonal Communication

4.5-0.0-4.5

Prerequisite: None
This course introduces theories of communication between two people in a variety of contexts and situations. Students learn how to analyze and understand the communication in interactions and relationships and develop a vocabulary with which to discuss and critique the communication within those relationships. This knowledge is used to improve students' day-to-day communication skills.

## SPCH 2900 - Special Topics in Communication

## Variable

Prerequisite: (1) SPCH 1110
This course permits instruction in special content areas not included in other speech courses. Topics include advanced public speaking preparation and presentation, rhetorical criticism, and media analysis.

## THEA - Theatre

## THEA 1000 - Introduction to the Theatre- -8

4.5-0.0-4.5

Prerequisite: None
Students survey 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. The course explores all elements and professions of theatre: the dramatist, the producer, the director, the actor, the production designers, the stage manager, the tech director and crew, and the role of the audience. It includes an overview of theatre history and theatrical genres.

## THEA 1110 - Theatre Technology I <br> 3.0-3.0-4.0

Prerequisite: None
Beginning and experienced students learn the basic arts and crafts of technical theatre in a professional theatre environment. The course includes overviews of the procedure and safety issues and practices set construction, lighting, and costume. It is a prerequisite for admission to the certified Theatre Technology Apprentice program offered through the Omaha Community Playhouse.
THEA 1120 - Theatre Technology II
2.5-4.5-4.0

Prerequisite: (1) THEA 1110
Students continue work begun in THEA 1110 with focus on real work situations and experiences. Topics include overview and practice in properties, scenic painting, and sound design and support. Students also begin work in their chosen areas of emphasis. These areas include sound, lights, construction, scenic painting, costume, props, stage management, box office, and house management.

## THEA 1130 - Theatre Technology III <br> 2.5-4.5-4.0 <br> Prerequisite: (1) THEA 1120

Students continue the work begun in THEA 1110 and 1120 with focus on real work situations and experiences, continuing their rotation within their selected artistic areas of emphasis. These areas include sound, lights, construction, scenic painting, costume, props, stage management, box office, and house management. Students begin the process of career development through the creation of professional materials, such as resumes and portfolios.

THEA 2010 - Script Analysis
4.5-0.0-4.5

Prerequisite: None
Students learn to do close readings of dramatic texts to explore themes and technical challenges. The course emphasizes analysis from technical, performance, and directorial points of view and the importance of unity in the technical elements of a production.
THEA 2020 - Fundamentals of Acting I
4.5-0.0-4.5

Prerequisite: None
This is a basic acting course for students with limited acting experience who have 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 prepare students for basic character and scene work.

## THEA 2021 - Fundamentals of Acting II

4.5-0.0-4.5

Prerequisite: (1) THEA 2020
This course is a continuation of THEA 2020 with further practice in characterization and scene work. Students develop two scenes and two monologues, with a focus on character development and the acting process.

## THEA 2030 - Playwriting I

4.5-0.0-4.5

Prerequisite: (2) ENGL 1010 and ENGL 1310; or instructor approval
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, workshops, and discussion. NOTE: THEA 2010 Script Analysis is strongly recommended as a corequisite.

THEA 2031 - Playwriting II
4.5-0.0-4.5

Prerequisite: (1) THEA 2030 or instructor approval

This course is a further exploration of the craft of playwriting, focusing on nontraditional dramatic structure. Through independent study and in-class writing, students develop an appreciation for a variety of theatre styles, while stimulating their own creative output.

## THEA 2040 - Movement for the Actor

4.5-0.0-4.5

Prerequisite: None
This course includes the study and practice of physical techniques and approaches used 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

## 4.5-0.0-4.5

Prerequisite: None
Students study and practice vocal techniques to develop physical alignment and release, breathing and resonance, articulation and range, imagery, and text for performance.

## THEA 2110 - Theatre History I

4.5-0.0-4.5

Prerequisite: None
Students critically examine cultural, political, philosophical, technical, and stylistic developments in theatre history from its origins to A.D. 1700. Topics include the evolution of acting, directing, technical theatre, theatre spaces, and forms of drama, and students discuss historically significant dramatic works.

## THEA 2120 - Theatre History II

## 4.5-0.0-4.5

Prerequisite: (1) THEA 2110 or instructor approval
This course covers the various developments in theatre history from A.D. 1700 to present.

## THEA 2150 - Stage Rigging

2.0-7.5-4.5

Prerequisite: (1) THEA 1110 or instructor approval
The course builds on concepts and skills introduced in Theatre Technology I with specific emphasis on stage rigging. It covers rigging topics, including repair and maintenance, motorized rigging, trussing, and special applications, in the lecture portion and reinforces them during labs under non-production conditions. Students apply fundamental skills in the installation of flying scenery as well as use of stage rigging equipment under show conditions.

## THEA 2160 - Principles of Stage Lighting

2.0-7.5-4.5

Prerequisite: (1) THEA 1110 or instructor approval
This course builds on concepts and skills introduced in THEA 1110 with specific emphasis on stage lighting. It covers lighting topics, including wiring and repair of electrical cables, basic color theory, and refraction principles, in the lecture portion and reinforces them during labs under non-production conditions. Students apply fundamental skills in light console operation and temporary installations of lighting systems under show conditions.

## THEA 2170 - Stage Management

## 4.5-0.0-4.5

Prerequisite: None
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

## 4.5-0.0-4.5

Prerequisite: None
This course is an overview of issues relevant to the operation of arts organizations, including publicity, promotion, box office and admission, facilities management, programming, and planning.

## THEA 2900 - Special Topics in Theatre

Variable
Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other theatre courses.

## THEA 2901 - Special Topics in Playwriting

Variable
Prerequisite: (1) THEA 2030 or instructor approval
This course addresses specific playwriting topics, such as documentary theatre, community-based or devised theatre, adaptation from non-dramatic texts, solo performance, and more. It may also accommodate special availability of noteworthy playwright teaching artists.

## THEA 2910 - Special Topics: GPTC

1.5-0.0-1.5

Prerequisite: None
This course focuses on the first step in producing a play: the play reading. Students attend 15 hours of readings and critique sessions of new plays at the Great Plains Theatre Conference PlayLabs. Students examine the dramaturgical elements of the plays (structure, world of the play, language, characters, plots, and themes), the production components outlined in the stage directions (casting, staging, tech/set design), and the discussion of the works by panelists and audience members. They keep a journal of their observations and responses to PlayLabs and 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
Prerequisite: (1) Instructor approval
Students earn credit for practical theatre production experience in topics such as design, construction, performance, and promotion.

## THEA 2981 - Cooperative Study I

0.0-14.5-4.0

Prerequisite: None
This course is the first in a series of apprenticeship courses in theatre technology. As part of the apprenticeship, individuals rotate through self-selected shop rotations throughout the year working alongside of Journeymen-Sponsors, and Master Craftsmen who are professional craftspeople in light and sound (in the electrics department), props, box office and stage management, and scenic painting. Secondarily, students work on actual productions to experience working under show conditions backstage.
THEA 2982 - Cooperative Study II
0.0-14.5-4.0

Prerequisite: None
This course is the second in a series of apprenticeship courses in theatre technology. As part of the apprenticeship, individuals rotate through self-selected shop rotations throughout the year working alongside of Journeymen-Sponsors and Master Craftsmen who are professional craftspeople in the theatre industry. The rotations may include work in the following craft areas: scene shop, costuming, light and sound (in the electrics department), props, box office and stage management, and scenic painting. Secondarily, students work on actual productions to experience working under show conditions backstage.

## THEA 2983 - Cooperative Study III

0.0-14.5-4.0

Prerequisite: None
This course is the third in a series of apprenticeship courses in theatre technology. As part of the apprenticeship, individuals rotate through self-selected shop rotations throughout the year working alongside of Journeymen-Sponsors and Master Craftsmen who are professional craftspeople in the theatre industry. The rotations may include work in the following craft areas: scene shop, costuming, light and sound (in the electrics department), props, box office and stage management, and scenic painting. Secondarily, students work on actual productions to experience working under show conditions backstage.

THEA 2984 - Cooperative Study IV

## 0.0-14.5-4.0

Prerequisite: None
This course is the beginning of a second-year apprenticeship, where students arrange to work in a specific area in a specific craft with a specific Journeyman Sponsor over the course of the academic year. During the course of the year, students produce a capstone portfolio and develop a significant capstone project in cooperation with professional staff that demonstrates the apprentice has accumulated the skills of the trade to such a degree that they may find entry-level employment in the trade. Capstone experiences may include general technician, costuming, box office and stage management, props, scenic painting, and electrics (either lighting/sound or both). Second-year apprentices are expected to work behind the scenes on shows as well as in shops to prepare shows for the stage.

THEA 2985 - Cooperative Study V
0.0-14.5-4.0

Prerequisite: None
This course is the middle course of a second-year apprenticeship, where students arrange to work in a specific area in a specific craft with a specific Journeyman Sponsor over the course of the academic year. During the course of the year, students produce a capstone portfolio and develop a significant capstone project in cooperation with professional staff that demonstrates the apprentice has accumulated the skills of the trade to such a degree that they may find entry-level employment in the trade. Capstone experiences may include general technician, costuming, box office and stage management, props, scenic painting, and electrics (either lighting/sound or both). Second-year apprentices are expected to work behind the scenes on shows as well as in shops to prepare shows for the stage.

## THEA 2986 - Cooperative Study VI

0.0-14.5-4.0

## Prerequisite: None

This course is the final course of a second-year apprenticeship, where students arrange to work in a specific area in a specific craft with a specific Journeyman Sponsor over the course of the academic year. During the course of the year, students produce a capstone portfolio and develop a significant capstone project in cooperation with professional staff that demonstrates the apprentice has accumulated the skills of the trade to such a degree that they may find entry-level employment in the trade. Capstone experiences may include general technician, costuming, box office and stage management, props, scenic painting, and electrics (either lighting/sound or both). Second-year apprentices are expected to work behind the scenes on shows as well as in shops to prepare shows for the stage. Students who successfully complete the apprenticeship course sequences receive an apprentice certificate.

## UTIL - Utility Line Technician

## UTIL 1010 - Pole Climbing ${ }^{\circ}$ <br> 4.0-1.5-4.5

Prerequisite: None
Corequisite: UTIL 1030
This course instructs students in proper and safe skills to climb wooden structures and the proper operation of utility equipment.

## UTIL 1020 - Electricity I®

5.0-1.5-5.5

Prerequisite: None
Students learn about electricity theory, Ohm's Law, series circuits, parallel circuits, and series/parallel circuits, including direct current and alternating current. This course also covers inductance, capacitance, and single-phase transformers. Math skills used in completing circuit computations are also taught.

UTIL 1030 - Ropes, Rigging, and Safety©
4.0-1.5-4.5

Prerequisite: None
Corequisite: UTIL 1010
This course acquaints students with tools, equipment, basic rope knots, and splices, as well as the proper operation of utility equipment.

## UTIL 1110 - Line Construction I® 5.0-1.5-5.5 <br> Prerequisite: None <br> Corequisite: UTIL 1030

This course acquaints students with the use of hand tools, hand signals, basic wiring techniques, pole setting, framing, and the use of digger-derrick equipment. Students also learn to identify electrical apparatus. NOTE: The corequisite UTIL 1030 can be taken concurrently or have previously been completed.

## UTIL 1240 - Underground Distribution Systems ${ }^{\text {® }}$ 5.0-1.5-5.5 <br> Prerequisite: (1) UTIL 1110

This course introduces students to URD systems, underground cables, and apparatus. Students learn various termination techniques and construct a model URD system in the lab.

## UTIL 2020 - Transformer Theory© <br> 5.0-1.5-5.5 <br> Prerequisite: (1) UTIL 1020

This course includes principles of electromagnetic induction, use and application of transformers, banking of transformers, calculating transformer loads, maintenance, testing, and proper connection of transformers.
UTIL 2030 - Secondary Electrical Systems®
4.0-1.5-4.5

Prerequisite: (2) UTIL 1020 and UTIL 1110
This course covers the application of transformer banks, metering systems, and watt-hour meters. It studies the specifications and relationship to delivery systems for supplying various voltages.
UTIL 2110 - Line Construction II®
5.0-1.5-5.5

Prerequisite: (1) UTIL 1110
This course includes stringing and sagging wire, dead ends, anchoring, guying, clipping in, and splicing of overhead conductors. Students become certified in Red Cross-standard first aid and cardiopulmonary resuscitation (CPR).
UTIL 2210 - Overhead Distribution Systems I®
5.0-1.5-5.5

Prerequisite: (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, National Safety Code, and construction specifications.
UTIL 2220-Overhead Distribution Systems II®
5.0-1.5-5.5

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 <br> 4.0-1.5-4.5

Prerequisite: (8) UTIL 1110; UTIL 1240; UTIL 2020; UTIL 2030; UTIL 2040; UTIL 2110; UTIL 2210; and UTIL 2220
This course focuses on utilizing proper tools and equipment and techniques for maintenance of overhead distribution systems using designated specifications to gain practical field experiences.
UTIL 2240 - Underground Distribution Systems II®
4.0-1.5-4.5

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
3.5-1.5-4.0

Prerequisite: (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 <br> 3.5-1.5-4.0

Prerequisite: (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 <br> 0.0 - variable - 8.0

Prerequisite: (1) Completion of Utility Line Technician program coursework
This is a supervised work experience for 10 weeks and is normally a Summer quarter activity following the completion of the UTIL coursework. Students submit regular reports while employed at an electrical utility or industrial plant. Students must have a Class A, O restriction CDL and be certified in first aid/CPR to participate in an internship. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## VACA - VideolAudio Communication Arts

## VACA 1010 - Audio and Video Production Engineering

## 4.5-0.0-4.5

Prerequisite: None
This course introduces students to audio and video production engineering. Students achieve competence in both audio and video systems and how to interconnect various pieces of equipment at the production or equipment user level. It presents background information, allowing students to reason out connection scenarios and make the desired equipment setup functional.

## VACA 1020 - Audio I

## 3.5-3.0-4.5

Prerequisite: None
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. It bases assignments off microphone acquisition, basic audio editing, and track mixing and sound for video and/or music.

## VACA 1110 - Introduction to Scriptwriting

4.5-0.0-4.5

Prerequisite: (1) ENGL 1010
This course introduces scriptwriting for video production, television, and motion picture film. Using the two-column and screenplay formats, students complete lab exercises and assignments about the structure of concept, treatment, and finished script. It reviews broadcast or corporate examples. Students can use the scripts for projects in Moving Image Lab, Video II, and Video III.

## VACA 1130 - Video I - Studio <br> 3.5-3.0-4.5 <br> Prerequisite: None

This course is an introduction to the video medium. Students learn and practice the basics of operating a video camera, recording quality images and sound, and editing tape. Both studio and location assignments provide practical learning opportunities. NOTE: PHOT 1500 is required for video majors only. (Formerly Video I)

## VACA 2020 - Audio II

3.5-3.0-4.5

Prerequisite: (1) VACA 1020
This course includes learning and practicing additional microphone and recording techniques. It emphasizes computer desktop editing and track mixing, recording, and editing. It bases assignments off sound for video as well as digital media and the Internet.

## VACA 2030 - Audio III

## 3.5-3.0-4.5

Prerequisite: (1) VACA 2020
This course includes advanced recording theory and application for use in the professional sound recording environment. It covers sound processing and mastering in depth.

## VACA 2050 - Pro-Tools

## 3.5-3.0-4.5

Prerequisite: (1) VACA 2020
This course concentrates on the industry-standard Pro-Tools Digital Audio Workstation software and hardware. Students learn how to use advanced ProTools techniques and concepts in the professional recording and editing environments.

## VACA 2060 - Audio Mixing and Summing

3.5-3.0-4.5

Prerequisite: (3) VACA 1020; VACA 2020; and VACA 2050
This course is an advanced study of procedures to achieve controlled mixes in the digital and analog mixing environments. It focuses on aspects of digital and analog summing, headroom, gain stages, subgroups, side-chair processing, hardware inserts, delay compensation, clocking, maintaining digital resolution, digital synchronization, A/D D/A conversion, sample rate conversion, dithering, serial order of processing, mid/side processing, and more. Students complete such assignments as signal flow drawings, equipment research, and a final project focusing on subgroup mixing techniques.

VACA 2070 - Modern Recording Techniques
3.5-3.0-4.5

Prerequisite: (3) VACA 1020; VACA 2020; and VACA 2050
This course is an in-depth study of recording capture methods. It focuses on the various techniques used to record different instruments, use of specific microphones, mono and stereo microphone techniques, gain staging, preproduction preparation, and more. A final, individual recording capture project corroborates the student's understanding.

## VACA 2120 - Screenwriting Principles

## 4.5-0.0-4.5

Prerequisite: (1) VACA 1110
This course is an overview of writing screenplays for motion picture film. It covers storytelling using the standard three-act screenplay structure and relates fundamental principles, including script format, structure, plot points, and character development, to sample scripts, films, and exercises.

VACA 2130 - Video II - Field

## 3.5-3.0-4.5

Prerequisite: (1) PHOT 1500
Camera operation, sound recording, and editing assignments provide an intermediate skill level of learning and practice. It introduces and applies lighting for the studio and on location. (Formerly Video II)

VACA 2131 - Video III - Project Development
3.5-3.0-4.5

Prerequisite: (1) VACA 2130
This course serves as a practicum for individual student productions. Students are responsible for the conception, production, direction, and post-production of a storytelling media program. Students achieve competence in planning and executing a script to a final product. The course reviews key production elements and critiques at each stage of the production.

## VACA 2220 - Digital Media Editing

## 3.5-3.0-4.5

Prerequisite: (1) PHOT 1500
This course serves as a practicum for digital production or post-production. Students are responsible for the conception, production, direction, and postproduction of a media program directed toward digital delivery. The course reviews key production elements and critiques at each stage of the production.

## VACA 2230 - Video Post-Production

## 3.5-3.0-4.5

Prerequisite: (1) VACA 1130
This course is an introduction to digital applications, such as compositing and media compression for computer and Internet delivery. Students achieve basic competence in appropriate software applications as used in industry.

## VACA 2240 - Cinematography

3.5-3.0-4.5

Prerequisite: (1) PHOT 1500
This class is an exploration into the art of cinematography, including composition, camera movement and lighting as used in cinema production. Students study the art form and actively work with camera and lighting to gain better appreciation for the craft as well as gaining technical skills in cinematography.

## VACA 2540 - Video Portfolio Development

1.0-6.0-3.0

Prerequisite: (1) VACA 2131 or instructor approval
Students put the commercial application of the video process into finished form. Instructors advise students and critique their work. Students complete comprehensive portfolios of their work as their final products.

## VACA 2900 - Special Topics in Video/Audio

Variable
Prerequisite: (1) Instructor approval
This course permits instruction in special content areas not included in other courses of the Video/Audio Communication Arts program.

## VACA 2940 - MetroVision Practicum

## 0.0-9.0-3.0

Prerequisite: (1) PHOT 1500
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 various stages and processes involved with producing existing regularly scheduled productions. It may also include the development of new programming. Students
gain advanced production experience with lighting, shooting, editing, directing, and producing MetroVision programming, which airs on a local cable television channel.

## VACA 2981 - Internship

Variable
Prerequisite: None
Through internships, students gain experience working in a professional video workplace performing a variety of functions, including set preparation, video production and post-production, and audio production and post-production. Based on state guidelines, students must complete 40 hours of work for each credit hour.

## WELD - Welding

## WELD 0900 - Introduction to Welding

2.0-3.0-3.0

Prerequisite: None
This course introduces the basic principles and techniques for safe set-up, shutdown, and operation of a number of welding and welding-related processes, including oxy-acetylene, shielded metal arc (stick), gas metal arc (MIG), and gas tungsten arc welding (TIG).

## WELD 1000 - Print Reading for Welders

3.0-0.0-3.0

Prerequisite: None
This course is a good first welding course. Students learn the elements of print reading with special emphasis on interpreting welding symbols. The course covers basic welding information, such as process fundamentals and selection considerations, weld types, joint design, and welding terminology. Students successfully completing this course are well-prepared for success in the program.

## WELD 1100 - Industrial Cutting Processes

## 2.0-3.0-3.0

Prerequisite: None
Students gain a working knowledge of oxy-fuel cutting (manual and machine), plasma cutting (manual and machine), and air carbon arc and plasma gouging.

## WELD 1150 - Welded Sculpture I

2.0-3.0-3.0

Prerequisite: None
Students learn the fundamental skills required to create sculptures in steel and copper using oxy-acetylene welding and cutting processes and related metalworking equipment. Students 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

2.0-3.0-3.0

Prerequisite: (1) WELD 1150
Students learn the fundamental skills required to create sculptures in steel and copper using gas metal arc welding, plasma cutting processes, and other weldingrelated metal-working equipment. Students combine these skills with those learned in Welded Sculpture I, applying 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 - Gas Metal Arc Welding (MIG) - Steel I 2.0-3.0-3.0 <br> Prerequisite: None

This course uses the theory and techniques in basic gas metal arc welding to produce sound fillet welds and sound groove welds in both the flat and vertical positions. Students weld using short-circuit and spray modes of metal transfer.

WELD 1261 - Combination Welding - Automotive
2.0-3.0-3.0

Prerequisite: None
This course acquaints students with the various welding and cutting techniques applicable to the automotive field.

## WELD 1262 - Quick Start

## 2.0-3.0-3.0

Prerequisite: None
This course gives students a quick start into a welding career by preparing them to pass the type of welding test given by many employers. Students learn the fundamentals of oxy-acetylene cutting, gas metal arc welding, and air carbon arc cutting. It also explores print reading for welders.

## WELD 1300-Oxy-Acetylene Welding

2.0-3.0-3.0

Prerequisite: None
This course covers the basic skills and use of equipment necessary to be knowledgeable in this discipline. Students learn to weld various joint types in all positions with steel and braze filler materials. This is an excellent preparatory class for TIG welding classes.

## WELD 1400 - Gas Tungsten Arc Welding (TIG) - Steel I

2.0-3.0-3.0

Prerequisite: None
This course emphasizes the theory and techniques used in basic gas tungsten arc welding of steel fillet and groove welds in the flat and vertical positions. It covers the equipment and its proper adjustment and also includes the many types of tungsten electrodes and the use of different gases. NOTE: Students are encouraged to take oxy-acetylene welding before attempting this class.
WELD 1410 - Gas Tungsten Arc Welding (TIG) - Stainless I
2.0-3.0-3.0

Prerequisite: (1) WELD 1400 with a grade of C or better
This course emphasizes the theory and techniques used in basic gas tungsten arc welding of stainless steel in the flat and vertical positions. It covers the equipment and its proper adjustment and also includes the many types of tungsten electrodes and the use of different gases. NOTE: Students are encouraged to take oxy-acetylene welding before attempting this course.

## WELD 1420 - Gas Tungsten Arc Welding (TIG) - Aluminum I <br> 2.0-3.0-3.0

Prerequisite: (1) WELD 1410
This course emphasizes the theory and techniques used in basic gas tungsten arc welding of aluminum in the flat and vertical positions. It covers the equipment and its proper adjustment and also includes the many types of tungsten electrodes and the use of different gases. NOTE: Students are encouraged to take oxy-acetylene welding before attempting this course.
WELD 1500 - Shielded Metal Arc Welding (Stick) - Flat

## 2.0-3.0-3.0

## Prerequisite: None

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 position, and making groove welds in the flat position. It uses a variety of methods to examine the weldments such as visual inspection, fillet weld break tests, and rootface bend test specimens.

## WELD 1510 - Shielded Metal Arc Welding (Stick) - Vertical

2.0-3.0-3.0

Prerequisite: (1) WELD 1500 with a grade of C or better
Vertical position weldments are basic to welding technology. This course studies and uses various techniques in the vertical position, including the use of E6010 and E 7018 electrodes.

## WELD 1700 - Introductory Fabrication

2.0-3.0-3.0

Prerequisite: (7) DRAF 1100, WELD 1000, WELD 1100, WELD 2200; and WELD 1200, WELD 1400, and WELD 1500 with grades of $C$ or better
This is a basic course in the fabrication of projects. It explores the use of layout tools and project drawings or sketches and emphasizes actual vs. estimated time and cost considerations.

## WELD 2200 - Gas Metal Arc Welding (MIG) - Steel II <br> 2.0-3.0-3.0

Prerequisite: (1) WELD 1200 with a grade of $C$ or better
This course is a continuation of GMAW - Steel I, including fillet and groove welds in the horizontal and overhead positions and the study of pulsed-spray transfer.

## WELD 2220 - Gas Metal Arc Welding (MIG) - Stainless

2.0-3.0-3.0

Prerequisite: (1) WELD 2200
This course is an advanced course covering gas metal arc welding of stainless steel in all positions using short-circuit and pulsed-spray modes of metal transfer.

## WELD 2230 - Gas Metal Arc Welding (MIG) - Aluminum

2.0-3.0-3.0

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

2.0-3.0-3.0

Prerequisite: (1) WELD 2200
This course covers gas-shielded and self-shielded flux-cored arc welding in the flat and vertical positions using semiautomatic equipment.

## WELD 2241 - Flux-Cored Arc Welding II

2.0-3.0-3.0

Prerequisite: (1) WELD 2240
This course covers gas-shielded and self-shielded flux-cored arc welding in the horizontal and overhead positions using semiautomatic equipment.

## WELD 2242 - Submerged Arc and Metal-Cored Welding

## 2.0-3.0-3.0

Prerequisite: (1) WELD 2200
This course covers automatic submerged arc welding in the flat position, manual submerged arc welding in the horizontal position, and metal-cored welding of flat and horizontal fillet and groove welds using semiautomatic equipment.

## WELD 2400 - Gas Tungsten Arc Welding (TIG) - Steel II

## 2.0-3.0-3.0

Prerequisite: (1) WELD 1400 with a grade of $C$ or better
This course is a continuation of Gas Tungsten Arc Welding - Steel I, covering welding in the horizontal and overhead positions. It includes the study of pulse-arc welding.

## WELD 2410 - Gas Tungsten Arc Welding (TIG) - Stainless II

2.0-3.0-3.0

Prerequisite: (1) WELD 1410
This course is a continuation of Gas Tungsten Arc Welding - Stainless I. It covers welding in the horizontal and overhead positions and includes the study of pulsearc welding.

## WELD 2420 - Gas Tungsten Arc Welding (TIG) - Aluminum II

2.0-3.0-3.0

Prerequisite: (1) WELD 1420
This course is a continuation of Gas Tungsten Arc Welding - Aluminum I. It covers welding in the horizontal and overhead positions, and it includes the study of pulse-arc welding.

## WELD 2500 - Shielded Metal Arc Welding (Stick) - Horizontal

 2.0-3.0-3.0
## Prerequisite: (1) WELD 1500 with a grade of $C$ or better

The ability to weld in the horizontal position is important in both plate and pipe welding. Students learn the proper techniques for welding fillet and groove welds using E6010 and E7018 electrodes.

## WELD 2510 - SMAW (Stick) - Overhead

2.0-3.0-3.0

Prerequisite: (1) WELD 1510
Overhead weldments are basic to welding technology. This course studies and applies various techniques in the vertical position including the use of E6010 and E7018 electrodes.

## WELD 2520 - Shielded Metal Arc Welding (Stick) - Pipe I

2.0-3.0-3.0

Prerequisite: (2) WELD 1100 and WELD 2510
This course features basic pipe welding including techniques involving pipe-toplate, single, and multiple pass fillet welds in the horizontal, vertical, and overhead positions using E6010 and E7018 electrodes.

## WELD 2530 - Shielded Metal Arc Welding (Stick) - Pipe II

2.0-3.0-3.0

Prerequisite: (1) WELD 2520
This course stresses advanced pipe welding techniques for welding open root, pipe-to-pipe connections. Students weld in the horizontal (2G), multi-position vertical uphill progression (5G), and multi-position 45-degree incline (6G) positions using E6010 and E7018 electrodes. Students test each pipe position using visual inspection and root-face bend test specimens.

## WELD 2540 - Shielded Metal Arc Welding (Stick) - Pipe III

2.0-3.0-3.0

Prerequisite: (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 2G, 5G, and 6G positions.

## WELD 2600 - Gas Shielded Arc Welding - Pipe

2.0-3.0-3.0

Prerequisite: (3) WELD 1100; WELD 2241; and WELD 2400
This course includes root, fill, and cover passes on pipe in all positions with gas metal arc welding. It also includes gas tungsten arc welding root passes with fluxcore arc welding of the fill and cover passes.

## WELD 2710 - Industrial Fabrication Project

2.0-3.0-3.0

Prerequisite: (3) WELD 1700; WELD 2400; and WELD 2510
This course consists of constructing projects where students apply techniques and principles acquired in previous courses. Students document their fabrication by use of weld prints, parts lists, and time-cost estimates.

## WELD 2810 - Welder Pre-Qualification

2.0-3.0-3.0

Prerequisite: (1) Special course requirements; contact a full-time instructor
Students wanting to be certified welders must pass a welder performance qualification test. This course is preparation for such a test. Students 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 is not done as part of this course.

## WELD 2820 - Welder Qualification (Certification)

1.0-0.0-1.0

Prerequisite: (1) Special course requirements; contact a full-time instructor
Student welders wishing to be certified welders take the welder performance qualification test.

## WELD 2900 - Special Topics in Welding <br> Variable

This course permits instruction in special content areas not included in other courses in the Welding Technology program.

## WORK - Workplace Skills

WORK 0200 - Career and Learning Strategies
Variable
Prerequisite: None
This course helps students acquire skills related to career awareness and choice, learning and study skills, basic skills enhancement, and other strategies. After successful completion of this course, students better understand the process of achieving their educational goals.

## WORK 0900 - Introduction to Microcomputer Technology

4.5-0.0-4.5

Prerequisite: None
This course introduces students to essential technology skills by providing a beginning overview of basic microcomputer components and functions; computerbased technologies such as Internet, email, and College resources; file management; and word processing basics. NOTE: This course replaces WORK $1310,1320,1330,1340$, and 1350.

## WORK 1011 - Orientation for International Students

1.0-0.0-1.0

Prerequisite: None
This course provides an introduction to the facilities and services at MCC and guidelines for living and studying in the United States and Omaha, Neb. Students learn practical information about education, employment, immigration regulations, insurance, social security, and transportation to enhance their participation in community activities and services in the Omaha area.

WORK 1230 - Career Planning
2.0-0.0-2.0

Prerequisite: None
This course assists students in making career choices. Topics include career pathways, values, clarification of interests, skills assessment, and using career and College resources.

## WORK 1250 - Learning Anxiety

Variable
Prerequisite: None
This course helps students address issues such as test and math anxiety. Topics focus on mastering learning strategies that help them overcome this anxiety.

## WORK 1400 - Employability Skills $\checkmark \nexists$

Variable
Prerequisite: None
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.

WORK 1401 - Employability Skills for Process, Power, and Energy-Related Fields
4.5-0.0-4.5

Prerequisite: None
This course introduces students to energy-related industries, employers, and the unique employability skills required to succeed. Students have the opportunity to enhance their interpersonal, teamwork, and communication skills; to problem solve and think creatively; and to employ effective time management life skills as required for success in the field.

## WORK 1410 - Secrets to Business Success $-\hat{\theta}$

3.0-0.0-3.0

Prerequisite: None
This course provides an in-depth look at the soft skills and self-management skills needed to provide effective customer service and support in all workplace environments.

## WORK 1420 - Interpersonal Communication Skills for the Workplace

 3.5-0.0-3.5Prerequisite: None
This course introduces students to the basic concepts of interpersonal communication and enhances their ability to use effective interpersona communication skills. Students discuss, analyze, and demonstrate effective verbal and nonverbal communication in interactions and demonstrate skills of active listening and use of appropriate communication in a variety of business settings.

## WORK 2900 - Special Topics in Workplace Skills

 VariablePrerequisite: (1) Assessment testing or instructor approval
This course permits instruction in various skill areas related to workplace effectiveness strategies not included in other workplace skills courses.

## WORK 2981 - Internship

Variable
Prerequisite: (2) WORK 1400 and WORK 1410
Students apply the principles and procedures learned in employability, including use of proper work behavior and work attitude, basic skills, and human relations skills. The work setting is a public office or a department of a business or nonprofit organization. Students record the tasks performed in their portfolios, which work supervisors and faculty sponsors review periodically to assure development and reinforcement of appropriate competencies.

## FACULTY

## Applied Technology Area

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Luann Matthies, Design, Interactivity, and Media Arts Instructor, B.A., Midland Lutheran College; M.A.Ed., University of Nebraska at Kearney; M.F.A., University of South Dakota
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## EDUCATIONAL TERMS

Academic year - Comprised of four quarters at MCC, the academic year runs from Summer quarter through Spring quarter.
Career certificate - A career certificate is awarded for successful completion of a structured sequence of courses that is at least 24.0 and a maximum of 36.0 credit hours in length. (formerly known as specialist diploma)
Census date - Date used by colleges to determine enrollment figures and to determine students' eligibility for financial aid disbursements.
Certificate of achievement - A certificate of achievement is awarded for successful completion of a program of study that is at least 48.0 credit hours in length.
Corequisite - An academic course required to be taken in conjunction with another course. In some cases, previous completion of the required course is acceptable.
Course description - This is a statement found in the College catalog that identifies the content of a specific course.
Course number - The number following a course subject identifies a specific course, such as BSAD 1000 (Introduction to Business).
Course objective - Each course offered has defined objectives that program 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 determine how to best assess the extent to which students have mastered these objectives: tests, homework assignments, presentations, research projects, etc.
Course section - A combination of two characters (can be numerals or letters) that immediately follows a course subject and number. The course section uniquely identifies the location and the time of the course.
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 who successfully completes 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 students to select a course of their choice to apply toward program requirements.
Full-time student - Students enrolled in 12.0 or more credit hours are considered to be full-time students.
Grade point average - This is the cumulative, numerical average of the grades a student has received. The range may be from a low of 0.0 to a high of 4.0.
Hybrid course - This is a coordinated approach to learning, using both online technology and classroom interaction with faculty and peers.
Internship - This is work related to students' programs of study for which they receive 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.
Non-standard courses - These courses may run for less than the full quarter, more than the full quarter, and/or may have non-standard begin and end dates' not within the designated academic quarter dates.
Option - A degree or certificate option is an area of interest within a program of study. A degree or certificate is awarded for the program, not the option. For students completing multiple options within a program, only one major degree is awarded.
Part-time student - Students enrolled in fewer than 12.0 credit hours are considered to be part-time students.
Prerequisite - Requirements to enter selected courses have been established; students 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). Academic quarters are 11 weeks in length (except for the Summer quarter with one 10-week and two five-week sessions). Students must register and pay for each quarter they attend. Quarters are often referenced in relation to the academic year in which they occur, such as 14/WI for Winter classes in the 2014 academic year.

Specialist diploma - A specialist diploma is awarded for successful completion of a structured sequence of courses that is at least 24.0 and a maximum of 36.0 credit hours in length. In fall 2013, specialist diplomas were replaced by career certificates.
Standard courses - Full-quarter classes that begin and end within the designated academic quarter dates (see begin and end dates in the academic calendar).
Syllabus - A document presented to students at the start of the quarter that outlines content, policies, and activities in a class. MCC syllabi follow a standard template that includes the course description, course objectives, assessment policies, the instructor's expectations of students, learning and technology support, and a schedule of assignments.
Synonym - A unique six-digit number assigned to every course section at MCC.
Transcript - An official record of the grades earned at an institution.
Transfer - The conveyance of a student's credits from one institution to another.

## COLLEGE POLICIES AND PROCEDURES

## Animals on Campus

Animals are not allowed on campus with the exception of service animals for people with disabilities. At no time should animals be left in vehicles. Questions should be directed to the campus dean or center executive director.

The ADA and Nebraska law [Section 20-127] allows service animals accompanying people with disabilities to be on MCC's campuses. A service animal must be permitted to accompany a person with a disability everywhere on campus except in situations where safety may be compromised. If there are any questions as to whether an animal qualifies as a service animal, a determination will be made by Disability Support Services counselors. Therapy animals do not assist an individual with a disability in the activities of daily living; therefore, they are not protected by laws for service animals.

## Annual Notice to Students

Annually, MCC informs students of the Family Educational Rights and Privacy Act (FERPA) of 1974, as amended. This Act, with which the institution complies fully, was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with the Family Educational Rights and Privacy Act office concerning alleged failures by the institution in complying with the provisions of the Act.

## Children on Campus

Out of respect for all students and concern for safety and liability issues, children not registered in MCC classes are not permitted to attend class with their parent or guardian or to be left unattended at any College location. MCC police will attempt to locate a parent or guardian of an unattended child. Legal authorities may be called to deal with the situation if the attempt to locate the parent or guardian is unsuccessful. Students who disregard this policy may face disciplinary action.

## 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 is available online at www.mccneb.edu/police.

## Family Educational Rights and Privacy Act (FERPA)

## Access to student information

Students' rights concerning access to educational records are outlined in the Family Educational Rights and Privacy Act, as amended. These rights include:

- providing students with the opportunity to inspect their educational records (Call the Records office at 402-457-2353 for an appointment.);
- providing students with the opportunity to challenge through a hearing the content of their educational records if it is believed that they contain information that is inaccurate or misleading (Call the Records office at 402-457-2353 for an appointment.); and
- limiting disclosure of information from students' records to those who have students' written consent or to officials specifically permitted within the law, such as College officials and - under certain conditions - local, state, and federal officials.
Students who wish to grant parental, spouse, or third-party access to their educational records may do so by submitting an Authorization to Release Student Information form to the Records office.

Metropolitan Community College will not disclose any personally identifiable information about students (except directory information listed below at the discretion of the College) without the written consent of the student. Each student, however, has the right to restrict the release of any or all of this information by submitting a Request to Opt Out of Directory Information form or sending in a written request to the Records office. MCC's directory information may include (at the discretion of the College):

- major field of study
- credit hour status (full- or part-time for the term)
- start and end dates of attendance (start date of first quarter of when classes were taken and end date of the last quarter when classes were completed only)
- degrees and awards received
- student's name
- student's address
- date of birth

Students have the right to restrict access to their directory information by completing a Request to Opt Out of Directory Information form. By completing this form, students are requesting that directory information not be released to nonCollege personnel. As a result of the decision to request confidential status, students should know:

- all address changes must be made in person with a form of ID;
- no information can be given to friends or relatives trying to locate a student through MCC;
- information as to student status is suppressed, so loan companies, prospective employers, family members, etc., are informed that MCC has no record of the student's attendance; and
- the graduation program or any other official publication does not contain the student's name.

Students who object to the disclosure of any of the above information and would like it withheld from disclosure may notify the Records office in writing at:
Metropolitan Community College
Attn: Records Office
P.O. Box 3777

Omaha, NE 68103-0777

## 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 1975, 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 for 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
30th and Fort Streets
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

## Solicitation and Distribution of Literature

The College forbids the solicitation of students, employees, visitors, and guests on College property for the sale of goods and services, religious or charitable purposes, or any other activity not officially sanctioned by the College without the prior consent of the president or designee.
The College reserves the right to limit the time, place, and manner of solicitation on College property for any purpose and by any individual or group to reasonable times, places, and methods that do not interfere with the educational or student activities of the College; the safe and unobstructed movement of students, employees, visitors, and guests of the College; the safety of all individuals on College property; and promotion of the cleanliness and preservation of College grounds and facilities.
The College prohibits the placement of any kind of flier or other kind of paper, sticker, pamphlet, or other solicitous information, whether for-profit or not, on any vehicles or anywhere else on College property at any time. College organizations wishing to post announcements on approved College bulletin boards must seek prior permission of the campus dean, executive director, or their designees.

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## Nondiscrimination \& Equal Opportunity Statement

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 Il of the Americans with Disabilities Act of 1990, as amended, the Age Discrimination Act of 1975, 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 ActProgram and Services Accessibility, and Age, contact: Vice President for Campuses and Student Affairs: 402-457-2681 (students), Associate Vice President of Human Resources: 402-457-2236 (employees), Director of Facilities: 402-457-2529 (accessibiity). 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, 30th and Fort streets P.O. Box 3777, Omaha, NE 68103-0777


[^0]:    －Entry points vary from day and evening classes．Consult class schedule for latest offerings．
    －Students entering the program class MUST HAVE a valid driver＇s
    license．Licenses are checked on the first day of every class．Students without a license are disenrolled．
    －Students are required to purchase the internship tool set（ITS）before enrolling in AUTT 2981 （p．163）．Students who do not obtain their tools may be disenrolled
    －This program utilizes a hybrid format．Twenty－five percent of the instruction is online．
    －Additional program requirements are detailed in the automotive Student Handbook at www．mccneb．edu／programs／autt．asp．

[^1]:    Electives for Construction and Building Science Concrete/Masonry Construction ( 6.5 credit hrs.)
    Courses
    Select 6.5 credit hours from the following subjects:
    ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLSM, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.
    The degree option is an area of interest within a program. Although students may complete single or multiple options within this program, only the major degree is awarded.

[^2]:    Degree: Associate in Applied Science
    Process Operations Technology
    Bio-Processing
    Nuclear Power Plant Non-Licensed Operator
    Power Plant
    Career Certificate:
    Solar Hydronic Systems
    Stationary Engineer

[^3]:    EMSP 1110 - Advanced EMT
    10.0-6.0-12.0

    Prerequisite: (1) Must be an EMT
    This course is part 1 of a sequence of 2 courses in the Advanced EMT (AEMT) program that must be completed consecutively. This course provides the AEMT'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.

