

# METROPOLITAN

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## COMMUNITY COLLEGE

COLLEGE CATALOG  
2013-2014





# IMPORTANT CONTACTS

## All locations

### Contact Center

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

### Academic Resource Centers

Elkhorn Valley Campus – 402-289-1300  
Fort Omaha Campus – 402-457-2438  
Fremont Area Center – 402-317 3040  
Sarpy Center – 402-537-3864  
South Omaha Campus – 402-738-4537

### Academic Support Commons

Elkhorn Valley Campus – 402-289-1300

### 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

402-457-2592

### Campus 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 – 402-537-3800  
South Omaha Campus – 402-738-4600  
Washington County Technology Center – 402-317-3001

### Career Services

Elkhorn Valley Campus – 402-289-1316  
Fort Omaha Campus – 402-457-2331  
South Omaha Campus – 402-738-4555

### Community Education (non-credit)

402-457-2620

### Disability Support Services

Elkhorn Valley Campus – 402-289-1315  
Fort Omaha Campus – 402-457-2580  
Sarpy Center – 402-537-3841  
South Omaha Campus – 402-738-4757

### Financial Aid

Central Office – 402-457-2330  
Veteran Financial Services – 402-738-4619

### International Student Services

402-457-2281

### Libraries

Elkhorn Valley Campus – 402-289-1300  
Fort Omaha Campus – 402-457-2306  
South Omaha Campus – 402-738-4506 or 402-444-4850

### MCC Foundation and Alumni

402-457-2346

### MCC Police/Public Safety

All Locations – 402-457-2222

### Military and Veteran Support Services

402-738-4714

### Records/Transcripts

402-457-2353

### Registration

402-457-5231

### 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



# **METROPOLITAN COMMUNITY COLLEGE**

## **2013-2014 Course Catalog**

**This catalog is effective Fall quarter 2013. 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

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

As you look through the catalog, we hope you find a program, class, or service to meet your needs. MCC offers an academic transfer program for students interested in getting a bachelor's degree, as well as more than 175 degrees and awards in career and technical areas. High school students can begin their college experience by taking classes through the CollegeNOW!, Career Academy, and dual enrollment programs. 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 came into being in 1971 when the Nebraska Legislature created eight technical community college areas across the state. One of these new areas was called the Eastern Nebraska Technical Community College Area, which encompassed Dodge, Douglas, Sarpy, and Washington counties. An area vocational technical school operated by the Omaha Board of Education already served part of this area.

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

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 175 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; and visual and electronic technologies, as well as academic transfer programs. General support courses, classes for business and industry, and continuing education courses are also important parts of the College's service to the community.

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.

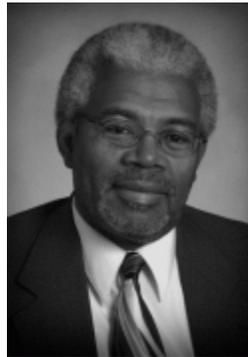
## Board of Governors 2013-2014



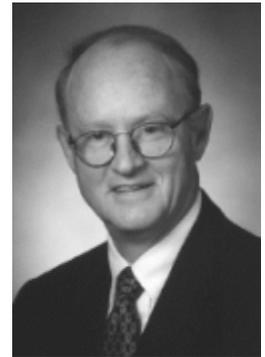
**Ron Hug**  
District 1



**Linda McDermitt**  
District 1



**Fred Conley**  
District 2



**Dave Newell**  
District 2



**Jim Monahan**  
District 3



**Tim Dempsey**  
District 3



**Steve Brock**  
District 4



**Crystal Rhoades**  
District 4



**Michelle Nekuda**  
District 5



**Steve Grabowski**  
District 5



**Tim Potter**  
At Large

## College Accreditation

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

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  
<http://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 National 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](http://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, DC 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 are encouraged to nurture the sensitivity and mutual respect that is fundamental to valuing diversity. Through a supportive intellectual and social climate, MCC promotes freedom of thought, speech, innovation, and creativity.

## MCC Foundation

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

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

The MCC Foundation accepts gifts of cash, life insurance, personal property, securities and stocks, or bequests. Gifts may be designated toward an existing fund, or donors may create a new fund that meets their giving criteria. The MCC Foundation also offers prospective donors the option of creating endowed funds of \$5,000 or more to provide annual and lasting gifts toward the project of their choice.

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

# ACADEMIC CALENDAR

## For Summer 2013-Summer 2014

### Summer 2013 (13/SS)

Classes begin for ten-week and first five-week sessions	June 6 (TH)
Census date for first five-week session*	June 12 (W)
Census date for ten-week session*	June 19 (W)
Independence Day recess (College closed)	July 4 (TH)
Classes end for first five-week session	July 11 (TH)
Classes begin for second five-week session	July 12 (F)
Census date for second five-week session*	July 18 (TH)
Classes end for ten-week and second five-week sessions	Aug. 15 (TH)

### Fall 2013 (13/FA)

Labor Day recess (College closed)	Aug.31 – Sept. 2 (SA–M)
Classes begin	Sept. 3 (T)
Census date*	Sept. 16 (M)
Classes end	Nov. 18 (M)

### Winter 2013–2014 (13/WI)

Thanksgiving Day recess (College closed)	Nov. 28 – Dec. 1 (TH–SU)
Classes begin	Dec. 2 (M)
Census date*	Dec. 13 (F)
Last class day before holiday recess	Dec. 23 (M)
Holiday recess (College closed)	Dec. 25 – Jan. 1 (W–W)
Classes resume after holiday recess	Jan. 2 (TH)
Martin Luther King recess (College closed)	Jan. 20 (M)
Classes end	Feb. 26 (W)

### Spring 2014 (13/SP)

Weekend classes begin	March 1 (SA)
Weekday classes begin	March 7 (F)
Census date*	March 20 (TH)
Spring recess (College closed)	April 19 – 20 (SA–SU)
Classes resume after spring recess	April 21 (M)
Classes end	May 22 (TH)
Memorial Day recess (College closed)	May 24–26 (SA–M)

**Summer 2014 (14/SS)**

Classes begin for ten-week and first five-week sessions	June 6 (F)
Census date for first five-week session*	June 12 (TH)
Census date for ten-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 ten-week and second five-week sessions	Aug. 15 (F)

**For Summer 2013-Summer 2014**

\*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 ten-week and two five-week 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.

# 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, co-requisites, lecture – lab – credit hours, and other pertinent course information can be found in this section. Courses marked with a  indicate the course is offered online; those marked with a  indicate a hybrid format (part classroom/part online).

## Prerequisites and Co-requisites

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.)*

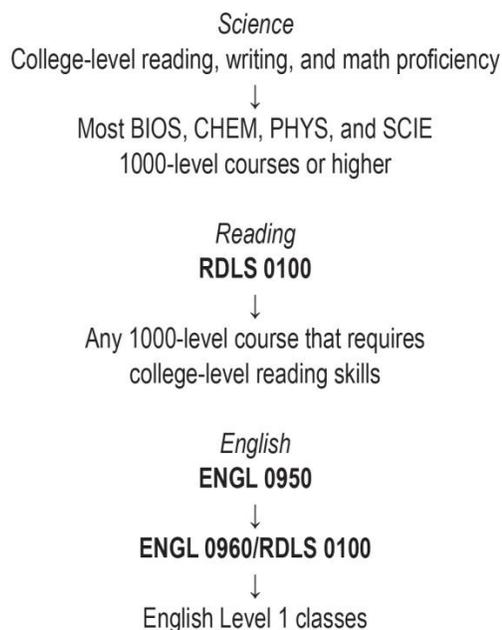
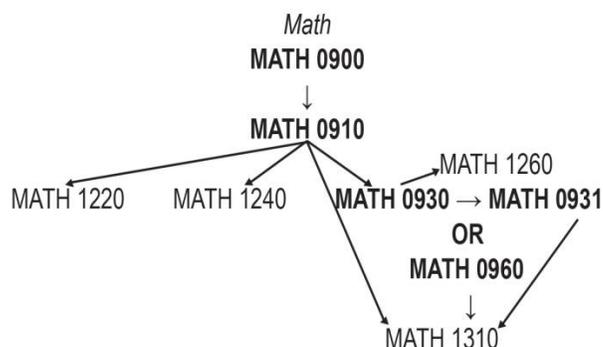
When enrolling in a course, the prerequisites for the current catalog year are the ones that must be met even though students are graduating under the provisions of an earlier catalog.

A limited number of courses also have co-requisites that are required to be taken at the same time as the course described. Co-requisites appear beneath the prerequisites. In some cases, previous completion of the required co-requisite is acceptable and noted.

## 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.

The classes below in bold are the first possible developmental courses MCC offers. These courses may be needed before students can register for the 1000-level courses in a particular program. For example, students needing MATH 1310 and testing into MATH 0910 would need to take MATH 0910 and MATH 0930/MATH 0931 or MATH 0960 before taking MATH 1310. The math, science, reading, and English areas are listed below.



# ENROLLMENT

## 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. 15).

*\*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 <http://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 approval from a campus dean/executive director or Student Services director.

### 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 (Avow, Docufide, Scrip-Safe, National Student Clearinghouse, etc.), then it must be emailed to [transcripts@mccneb.edu](mailto: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)
  - North Central Association of Colleges and Schools - The Higher Learning Commission (NCA-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](http://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 onto 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: <http://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

The following conditions apply to students holding or applying for an F-1 student visa seeking enrollment at 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](http://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 their passport.
- Applicants applying for a change to F-1 status need to meet with a designated school official in International Student Services for additional requirements.
- Applicants in the United States need to provide a copy of their visa and I-94 (front and back).
- 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 and employment authorization cards and the Transfer to MCC form are required.
- After admission, F-1 students take assessments in order to determine appropriate course placement.
- 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 that are exempt from providing English proficiency proof:

Australia

Canada (except Quebec)

Commonwealth Caribbean

Ireland

New Zealand

United Kingdom

For more information, visit [www.mccneb.edu/international](http://www.mccneb.edu/international), email [iss@mccneb.edu](mailto:iss@mccneb.edu), or call 402-457-2281.

### International student health insurance

MCC requires all international students on F-1 visas 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](mailto: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](mailto: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](http://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](http://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](http://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 half of the current 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](http://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](http://www.mccneb.edu/gtc) or call 402-457-2746.

## Academic Advisement

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

## 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. Academic Resource 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](http://www.mccneb.edu/testing) for more information.

# REGISTRATION

## Individuals can register:

- via the Internet through My Services
- by telephone
- in person with a Student Services professional

New MCC students should contact 402-457-2400 for more information regarding registration or to make an appointment with an advisor at one of the three main campuses. For other locations, call them directly at:

- (402) 537-3800 -- Sarpy Center
- (402) 721-2507 -- Fremont Area Center

Access the current class schedule to search for classes and check availability. Any person wishing to enroll for 25.0 or more credit hours needs approval from the Director of Campus and Student Services. Students are responsible for making any changes in their class schedule. These changes must follow College procedures and deadlines at all times.

## Current or Returning Students

### Online registration via My Way/My Services

1. Visit [www.mccneb.edu](http://www.mccneb.edu) to access My Services.
2. Enter username and password\* to log in.  
\*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](http://www.mccneb.edu/password) if needed.

### My Services – Resources 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

1. Have student ID number ready.
2. Have course and section numbers or course synonym numbers available.
3. Call 402-457-5231 or toll-free 800-228-9553.

**Schedule changes are the responsibility of the student. The changes must follow College procedures and deadlines at all times. Academic advisors are available to assist students with schedule changes.**

## Change of Registration

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

- 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 eligibility and amount for a refund is automatically calculated by the date of the withdrawal.
- 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 students.
- Students receiving financial aid are advised to speak with a financial aid representative when dropping classes after the start of the quarter.

## 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 consumable 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 Student Services.

# 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 serve 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](http://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](http://www.mccneb.edu/fa).

## Application Procedures

To apply for financial aid, students must submit the FAFSA 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 – April 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 ([www.fafsa.gov](http://www.fafsa.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.

Payment cannot be authorized for the following situations:

- Audited courses
- More than one repetition of a course after passing with an R, P, D, or better

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

1. If a student completely withdraws from all classes, Title IV Return of 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 (i.e., 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), informally withdraw from all of their classes by ceasing attendance (FX grades), or complete zero credits with a combination of W and FX grades only. 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 F, FX, 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 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 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 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 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.

## 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](http://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.

## Veteran Financial Services

The Veteran Financial 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 Veteran Financial Services office.

### Veterans' educational benefits

Due to the number of veteran educational programs, students should contact Veteran Financial 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 other 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 that provides funds for part-time positions at various locations on campus serving veterans. Any questions should be directed to Veteran Financial Services.

Some restrictions apply to all VA educational programs. For more information, contact Veteran Financial Services at 402-738-4619.

## 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 non-residents 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.
Persons 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 hr.
International student health insurance (charged to all international students, premium varies by age)	Premium varies by age
Specialized course fees (e.g., student liability insurance, special fee for tests required in class, lab supplies, etc.)	Fees vary by course
Pass through fees on select courses paid to third party for services provided (e.g., drug screening, background checks, third party facility usage fee, etc.)	Varies by services provided
Student liability insurance program (Students enrolling in certain health occupations and Human Services programs requiring clinical practice, laboratory work, or experiences that place students in the position of providing patient care must be covered by a student liability insurance program. The specific policy is determined by the College with the cost paid by students as part of the fee assessed upon initial enrollment in the clinical, laboratory, or patient care class.)	Varies by policy 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 offered by a third-party agency that allows students to make payments on their tuition for the quarter. For more information, visit [www.mccneb.edu/currentstudents/facts.asp](http://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 into 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.asp](http://www.mccneb.edu/sos/records.asp).

**Students are responsible for dropping the course(s) if unable to attend. Non-attendance 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 Academic Resource 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 non-academic. 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.

## Academic Resource Centers

The College’s Academic Resource Centers provide resources, technologies, and services to support the learning needs of students in various areas of the College’s curriculum. Students have access to state-of-the-art equipment, computers, and specialized software. The Academic Resource 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 La Vista 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 online books, journals, magazines, newspapers, and encyclopedias. Off-campus 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;
- photocopiers and microform reader/printers; and
- 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 areas (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](http://www.mccneb.edu/library) or contact a library:

- Elkhorn Valley Campus, 402-289-1300
- Fort Omaha Campus, 402-457-2306
- South Omaha Campus, 402-738-4506

## Math Centers

Math Centers are located at all locations and provide drop-in assistance to students with homework and test preparation for all MCC math courses. Assistance is available for COMPASS test review, math topics in other courses, and general math review. Textbooks, solution manuals, computer tutorial software, videos, and group study are also available.

## Tutoring

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

## 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 <http://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, contact 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 is located at the Fort Omaha Campus in the Institute for the Culinary Arts (Building 22) and 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](http://resource.mccneb.edu/bistro).

## Career Services

A wide range of career, employment, and support services can be accessed through the counselors and advisors at the main campuses. These include assistance to students in making career decisions, obtaining market and employment information, and understanding the skills needed to retain or upgrade employment. Services offered include career-based presentations, online assessment tools, career exploration, interviewing skills, and resume/job search resources.

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

- learning in a cooperative environment;
- integrated curriculum;
- individual advising/counseling;
- direct contact with quality instructors;
- making new friends;
- small class sizes; 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](http://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](http://www.mccneb.edu/passport).

### TE@M

The Teacher Education @ Metro (TE@M) learning community gives students the opportunity to explore teaching as a profession. Through a partnership with the University of Nebraska

at Omaha College of Education, MCC offers three transferable professional core requirement education courses. These courses, completed over two or three quarters, start students toward their Bachelor's in Education and provide an economical way to determine if teaching is the career path for them. There are special qualifications and prerequisites required for entry into the TE@M program. Additional information and the TE@M application can be found at [www.mccneb.edu/team](http://www.mccneb.edu/team).

### 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. The TRiO Student Support Services program also includes the Single Parent/Displaced Homemaker program serving single 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 Student Support Services/TRiO students. Referral to other College offices and relevant outside community agencies is also available.

## Military and Veteran Support Services

Military and Veteran Support Services provides support 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, visit [www.mccneb.edu/mvss](http://www.mccneb.edu/mvss).

## Public Safety/Police Department

The primary objective of the Public Safety/Police 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 Public Safety/Police Department, call 402-457-2222.

## Annual Security and Fire Safety Report

MCC Public Safety/Police 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 <http://www.mccneb.edu/police/pdf/ASFR2012.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: <http://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 <http://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-serve 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 our 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 onto ANGEL 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 402-457-2400 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 [internationalstudentsdepartment@mccneb.edu](mailto:internationalstudentsdepartment@mccneb.edu) for guidelines.

### Hybrid courses

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

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

### Support services

Students may use the College computers in the Academic Resource Centers, computer labs, Enrollment Centers, or libraries. One-on-one assistance is available in the Academic Resource 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.

### CampusShare (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 (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

### 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 (ACE).

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 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, DD-2586, 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.

## Credit for national standardized test results

### The College-Level Examination Program (CLEP)

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

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

### 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 bachelor's, master's, 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 3.5 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)
- **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)
- **P – Pass:** A 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)
- **R – Re-enroll:** The student has made satisfactory progress and should re-enroll 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:** A W is an indication of an action requested by the student. The student must officially withdraw from a course prior to the last day to drop classes. The student may drop via My Services or call Registration to officially withdraw. A W 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 class census date. The instructor then processes a disenrollment due to non-attendance or participation by the

census date, and the student is removed from the class roster.

- **Z – Unreported grade:** A 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' grade point averages (GPA) 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' grade point averages.

To calculate a GPA:

grade value x credit hours completed = grade points

A	4 x 4.5 = 18.0
B	3 x 4.5 = 13.5
C	2 x 4.5 = 9.0
D	1 x 4.5 = 4.5
F	0 x 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
ENGR 1050	D	3.0	3
<b>Totals</b>		<b>16.5</b>	<b>30</b>

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 their 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 their 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 A, 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 <http://mccneb.smartcatalogIQ.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 2.0 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 a graduation application form and appropriate signatures and submitted it by the application deadline to:

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

## 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 a graduation application form and appropriate signatures and submitted it to the Records office at the address listed above.

## 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, certificate of achievement, or career certificate.

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. Associate degrees, certificates of achievement, and career certificates are mailed approximately four to six weeks after the end of each quarter to qualifying students.

The MCC Graduation 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 Policies and Standards (p.20).

Minimum requirements for good academic standing	
Attempted graded courses 1000-level and above (credit hours)	Minimum cumulative GPA
1.0–29.5	1.5
30.0–79.5	1.75
80.0+	2.0

**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 2.0 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 through a Student Services director, campus dean, or center executive director. If the request is granted, the director or dean places the student in academic observation status. The director or dean is authorized to impose reasonable restrictions on students' subsequent enrollment.

If students earn less than a 2.0 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 apply for re-admission through a campus dean or center executive director.

## 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 institution-wide general education requirement. Other institutions' general education requirements vary depending upon the student's department or major. The Department/College-Based General Education Transfer Guides list the specific general education courses required for a student's intended major. Completing all of the general education courses that transfer to a specific department or college does not mean 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.edu/articulation](http://www.mccneb.edu/articulation) 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 the student portal (My Way) or via a link on <http://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 <http://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 e-transcript.

**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 user name 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.**

# 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 is 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.

## General Education Rationale and Minimum Requirements

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 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 Competencies and Minimum Credits

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

### Associate in science degrees:

Communications	13.5 credit hrs.
Quantitative/numeracy skills	4.5 credit hrs.
Other	<u>9.0 credit hrs.</u>
	27.0 credit hrs.

### Associate in arts degrees:

Communications	13.5 credit hrs.
Quantitative/numeracy skills	4.5 credit hrs.
Other	<u>9.0 credit hrs.</u>
	27.0 credit hrs.

### Certificates of achievement:

Communications	4.5 credit hrs.
Humanities/social sciences	4.5 credit hrs.
Quantitative/numeracy skills	<u>4.5 credit hrs.</u>
	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 Transfer Course Options starting on page 295 rather than the General Education Course options listed here.

### Communications

#### English

##### Level 1

ENGL 1010	English Composition I	4.5
ENGL 1210	Applied Communications	4.5
ENGL 1230	Business Writing	4.5
ENGL 1220	Technical Writing	4.5

##### Level II

ENGL 1020	English Composition II	4.5
ENGL 1240	Oral and Written Reports	4.5

### Humanities

#### Humanities

##### Architectural Drafting

ARCH 1000	Appreciation of Architecture	4.5
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##### Art

ARTS 1000	Introduction to the Visual Arts	4.5
ARTS 1010	Drawing	4.5
ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5

##### Chinese

CHIN 1110	Beginning Chinese I	7.5
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##### Design, Interactivity and Media Arts

DIMA 1411	History of Animation	4.5
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##### English

ENGL 1310	Creative Writing	4.5
ENGL 2450	Introduction to Literature	4.5
ENGL 2460	Introduction to Short Stories	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2480	Introduction to Drama Literature I	4.5
ENGL 2481	Introduction to Drama Literature II	4.5
ENGL 2490	Introduction to Latin American Literature	4.5
ENGL 2510	American Literature I	4.5
ENGL 2520	American Literature II	4.5
ENGL 2900	Special Topics in Literature	4.5

##### French

FREN 1010	Beginning French I	7.5
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##### German

GERM 1010	Elementary German I	7.5
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##### Humanities

HUMS 1000	Humanities through the Arts	4.5
HUMS 1110	Origins of the Humanities	4.5
HUMS 1120	Humanities I: Medieval - Renaissance	4.5
HUMS 1130	Humanities II: Modern World	4.5
HUMS 1140	Multi-Cultural Humanities I	4.5
HUMS 1150	Multi-Cultural Humanities II: The Humanities in the Non-Western World	4.5
HUMS 2310	Film History and Appreciation	4.5

##### Japanese

JAPN 1010	Beginning Japanese I	7.5
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##### Music

MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
MUSC 1050	Music Appreciation	4.5
MUSC 1110	Music Fundamentals I	4.5
MUSC 1120	Music Fundamentals II	4.5

**Philosophy**

PHIL 1010	Introduction to Philosophy	4.5
PHIL 1030	Professional Ethics	4.5
PHIL 1100	Critical Reasoning	4.5
PHIL 2030	Introduction to Ethics	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
PHIL 2400	Philosophy and Literature	4.5
PHIL 2600	Contemporary Issues in Philosophy	4.5

**Photography**

PHOT 1005	Basic Photography I - Digital	6.0
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**Sign Language**

SLIS 1010	American Sign Language I	6.0
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**Spanish**

SPAN 1110	Elementary Spanish I	7.5
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**Speech**

SPCH 1110	Public Speaking	4.5
SPCH 1120	Argumentation and Debate	4.5
SPCH 1220	Communication in Small Groups	4.5
SPCH 1300	Interpersonal Communication	4.5
SPCH 2900	Special Topics in Communication	variable

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

**Theatre**

THEA 1000	Introduction to the Theatre	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2021	Fundamentals of Acting II	4.5
THEA 2040	Movement for the Actor	4.5
THEA 2050	Voice for the Actor	4.5
THEA 2110	Theatre History I	4.5

**Social Sciences****Economics**

ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5

**Geography**

GEOG 1010	Fundamentals of Geography	4.5
GEOG 1050	Introduction to Human Geography	4.5
GEOG 2150	World Regional Geography	4.5

**History**

HIST 1010	United States History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1060	The History of Black Women in America	4.5
HIST 1070	Traditional and Modern China	4.5
HIST 1080	Traditional and Modern Japan	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
HIST 2200	Latin American History	4.5
HIST 2220	U.S. and Global Military History	4.5

**Political Science**

POLS 2050	American National Government	4.5
POLS 2060	The Constitution	4.5
POLS 2070	Contemporary Social and Political Issues	4.5

**Psychology**

PSYC 1000	Psychology for Everyday Living	4.5
PSYC 1010	Introduction to Psychology	4.5
PSYC 1110	Parenting and Family Problem Solving	4.5
PSYC 1120	Human Growth and Development	4.5
PSYC 1130	Cognitive Development	4.5
PSYC 2140	Behavior Modification and Principles of Learning	4.5
PSYC 2150	Survey of Human Sexuality	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
PSYC 2450	Social Psychology	4.5
PSYC 2550	Popular Readings in Social Science	4.5
PSYC 2650	Research Methods	4.5

**Social Work**

SOWK 1010	Introduction to Social Work	4.5
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**Sociology**

SOCI 1010	Introduction to Sociology	4.5
SOCI 1050	Sociology of Healthcare	4.5
SOCI 1100	Native American Studies	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2060	Multicultural Issues	4.5
SOCI 2110	Introduction to Gerontology	4.5
SOCI 2150	Survey of Human Sexuality	4.5
SOCI 2160	Marital and Family Relationships	4.5
SOCI 2310	Criminology	4.5
SOCI 2311	Juvenile Justice	4.5
SOCI 2450	Social Psychology	4.5
SOCI 2550	Popular Readings in Social Science	4.5
SOCI 2650	Research Methods	4.5

## **Natural Sciences**

### ***Biology***

BIOS 1010	Introduction to Biology~☏☑	6.0
BIOS 1111	Biology I	5.0
BIOS 1121	Biology II	5.0
BIOS 1130	Biology III	5.0
BIOS 1310	Survey of Human Anatomy and Physiology	5.0
BIOS 1400	Introduction to Botany	4.5
BIOS 1500	Introduction to Bioprocessing	4.5
BIOS 2150	Microbiology	6.0
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 2320	Human Anatomy and Physiology II	6.0

### ***Chemistry***

CHEM 1010	College Chemistry	6.0
CHEM 1120	Chemistry for the Health Sciences I	3.0
CHEM 1130	Chemistry for Health Sciences II	3.0
CHEM 1210	General Chemistry: Part I	2.0
CHEM 1211	General Chemistry: Part II	4.0
CHEM 1212	General Chemistry I: Accelerated	6.0
CHEM 1220	General Chemistry II	6.0
CHEM 1510	Chemistry for Bioindustry I	3.0
CHEM 1520	Chemistry for Bioindustry II	3.0
CHEM 2310	Fundamentals of Organic Chemistry	6.0
CHEM 232A	Organic Chemistry IA	2.5
CHEM 232B	Organic Chemistry IB	2.5
CHEM 232C	Organic Chemistry IC	2.5
CHEM 233A	Organic Chemistry IIA	2.5
CHEM 233B	Organic Chemistry IIB	2.5
CHEM 233C	Organic Chemistry IIC	2.5

### ***Geography***

GEOG 1150	Introduction to Physical Geography - Weather and Climate~☏	6.0
GEOG 1160	Introduction to Physical Geography - Landforms~☏	6.0
GEOG 1210	Introduction to Physical Geology~☏	6.0

### ***Physics***

PHYS 1010	Applied Physics	4.5
PHYS 110A	Principles of Physics IA	2.5
PHYS 110B	Principles of Physics IB	2.5
PHYS 110C	Principles of Physics IC	2.5
PHYS 111A	Principles of Physics IIA	2.5
PHYS 111B	Principles of Physics IIB	2.5
PHYS 111C	Principles of Physics IIC	2.5
PHYS 210A	General Physics IA	2.5
PHYS 210B	General Physics IB	2.5
PHYS 210C	General Physics IC	2.5
PHYS 211A	General Physics IIA	2.5
PHYS 211B	General Physics IIB	2.5
PHYS 211C	General Physics IIC	2.5

### ***Science***

SCIE 1010	Introduction to Physical Science~☏	6.0
SCIE 1300	Astronomy~☏	4.5
SCIE 1310	Astronomy Laboratory~☏	1.5
SCIE 1400	Introduction to Meteorology	6.0

### **Other**

#### ***Information Systems and Literacy***

INFO 1001	Information Systems and Literacy~☏☑	4.5
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#### ***Human Relations Skills***

HMRL 1010	Human Relations Skills~☏☑	4.5
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### **Quantitative/Numeracy Skills**

#### ***Mathematics***

MATH 1220	Business Mathematics~☏	4.5
MATH 1240	Applied Mathematics	4.5
MATH 1260	Geometry	4.5
MATH 1310	Intermediate Algebra~☏	4.5
MATH 1410	Statistics~☏	4.5
MATH 1420	College Algebra~☏	5.0
MATH 1430	Trigonometry~☏	4.5
MATH 2410	Calculus I~☏	7.5
MATH 2411	Calculus II~☏	7.5
MATH 2412	Calculus III~☏	6.0
MATH 2510	Differential Equations	4.5

NOTE: MATH courses 1310 and higher can be used as a math course for transfer

## College Programs and Pathways

The program of study charts accessed below list the degrees, certificates of achievement, and career certificates offered by MCC for 2013-2014. The first chart is an alphabetical listing by programs of study; the second chart is a list by dean areas. Certificates of achievement and career certificates lead to associate degrees and students can follow the “pathway” to those degrees by utilizing these charts. A five-digit alpha code appears in the columns where programs are offered and these codes are utilized for financial aid, degree audits, and other database purposes once students have declared their area of interest. Students with questions should see a counselor or advisor in Student Services.

### Dean Areas

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

### Other

GS – General Studies

TA – Transfer Agreements

ID – Interdisciplinary Studies

MCC Programs of Study - Alphabetical by Program of Study

MCC Programs of Study - Alphabetical by Dean Area

**METROPOLITAN COMMUNITY COLLEGE  
COLLEGE PROGRAMS AND PATHWAYS 2013-2014 (Alphabetical)**

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HM	Design, Interactivity & Media Arts	2-D Animation	<b><i>DIMAS</i></b>	DI2DO					
HM	Design, Interactivity & Media Arts	3-D Animation and Games	<b><i>DIMAS</i></b>	DI3DO					
BU	Accounting	Accounting	ACAAS						
IE	Office Technology	Administrative Assistant	<b><i>OTAAS</i></b>	OTAAO					
AT	Industrial and Commercial Trades	Advanced Industrial Sales Representative						IAISD	IMID1
AT	Heating, Air Conditioning, and Refrigeration	Air Conditioning						AACSD	HAAAS
AT	Apprentice Program	Apprentice Related Technology	<b><i>ARAAS</i></b>						
CA	Horticulture, Land Systems, and Management	Arboriculture						HLACC	HLMHO
AT	Architectural Design Technology	Architectural Design Technology	ADAS1					AAISD	ADAS1
HM	Art	Art	ARTAA			ARTCE	ARTAA		
HM	Art	Art – Entrepreneurship for the Artist				AENCE	GSAAS		
AT	Auto Collision Technology	Auto Collision Estimating						ACESD	ABAS1
AT	Auto Collision Technology	Auto Collision Technology	ABAS1			ABTC1	ABAS1		
AT	Automotive Technology	Automotive Brakes & Suspension						ABSSD	AUAAS
AT	Automotive Technology	Automotive Electronics						AAESD	AUAAS
AT	Automotive Technology	Automotive Technology	AUAAS						

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Automotive Technology	Automotive Transmissions & Transaxles						ATTSD	AUAAS
CA	Culinary Arts & Management	Bakery & Pastry	<b>CAAS1</b>	CABA2		CBPCE	CABA2		
AT	Automotive Technology	Basic Automotive Service				AUTC1	AUAAS		
AT	Industrial and Commercial Trades	Beginning Industrial Sales Representative						IBISD	IMID1
AT	Process Operations Technology	Bio-Processing	<b>PROAS</b>	PRBPO					
BU	Bookkeeping	Bookkeeping				BKPCE	GSAAS		
AT	Civil Engineering Technology	Building Construction Technology	<b>CEAA1</b>	CEBCO					
AT	Electrical Technology	Building Electrical				ETBCE	ETAAS		
AT	Industrial and Commercial Trades	Building Maintenance	<b>IMAS1</b>	IMCB2				IBMSD	IMCB2
BU	Business Management	Business Management	<b>BMAAS</b>						
BU	Business Management	Business Management Generalist	<b>BMAAS</b>	BMGEO				BMGSD	BMGEO
BU	Business Transfer	Business Transfer	BSTAA						
AT	Construction & Building Science	Cabinetry Construction						CCCSD	CBRFO
AT	Diesel Technology	CDL-A Truck Driving						CDLSD	GSAAS
BU	Human Services	Chemical Dependency	CDAAS			CDCCE	CDAAS		
BU	Human Services	Chemical Dependency Counseling							
IE	Electronics Technology	Cisco Certified Network Associate						ECASD	ELNCO

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Electronics Technology	Cisco Network Technician							
IE	Electronics Technology	Cisco Networking	ELNCO			ELCCO	ELNCO		
AT	Civil Engineering Technology	Civil Engineering Technology	<b>CEAA1</b>			CETCE	GSAAS		
AT	Construction & Building Science	Commercial Construction	<b>CBAAS</b>	CBCCO				CCOSD	CBCCO
AT	Electrical Technology	Commercial Electrical						ETCS1	ETAAS
HE	Criminal Justice	Community-Based Corrections	CJAAS					CJCD1	CJCNO
IE	Electronics Technology	Computer Electronics	ELCEO						
IE	General Information Technology	Computer Programming				CPTCE	GITAS		
IE	Computer Technology Transfer	Computer Science	CTSAS						
AT	Mechanical Design Technology	Computer-Aided Design						DCDSD	DRAS1
AT	Mechanical Design Technology	Computer-Aided Drafting						DCASD	DRAS1
AT	Civil Engineering Technology	Computer-Aided Drafting and Design						DDDSD	CEBCO
AT	Mechanical Design Technology	Computer-Aided Manufacturing Design						DCMSD	DRAS1
AT	Construction & Building Science	Concrete and Masonry Specialist				CBMCE	CBMCO		
AT	Construction & Building Science	Concrete/ Masonry Construction	<b>CBAAS</b>	CBMCO					
AT	Construction & Building Science	Construction and Building Science	<b>CBAAS</b>						
AT	Construction & Building Science	Construction Management	<b>CBAAS</b>	CBCMO				CCMSD	CBCMO

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HE	Criminal Justice	Corrections	<b>CJAAS</b>	CJCNO					
BU	Business Management	Credit Management	<b>BMAAS</b>	BMCMO				BCMSD	BMCMO
HE	Criminal Justice	Criminal Justice	<b>CJAAS</b>						
ID	Interdisciplinary Studies	Critical Facilities Operations							
CA	Culinary Arts & Management	Culinary Arts	<b>CAAS1</b>	CACA1					
CA	Culinary Arts & Management	Culinary Arts & Management	<b>CAAS1</b>			CAMCE	CACA1		
CA	Culinary Arts & Management	Culinary Arts Foundations						CAFSD	CACR1
CA	Culinary Arts & Management	Culinary Research/ Culinology™ Transfer	<b>CAAS1</b>	CACR1					
BU	Business Management	Customer Service Management						BCSSD	GSAAS
IE	Office Technology	Customer Service Representative						PSCSD	GSAAS
IE	Information Technology	Data Center Management	<b>INTAS</b>	ITDCO					
IE	Information Technology	Data Center Technician			<b>ITTCE</b>	ITCCO	GITAS		
IE	Information Technology	Database Administration	<b>INTAS</b>	ITDAO					
IE	General Information Technology	Database Systems				DBSCE	GITAS		
HE	Health	Dental Assisting			<b>DEACE</b>	GSAAS	PHSDO		
HE	Professional Health Studies	Dental Assisting Track	<b>PHSAS</b>	PHSDO					
HM	Design, Interactivity & Media Arts	Design and Interactive Media Arts Entrepreneurship				DIMCE	DIENO		

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HM	Design, Interactivity & Media Arts	Design, Interactivity & Media Arts	<b><i>DIMAS</i></b>						
IE	Information Technology	Desktop Support Specialist	<b><i>INTAS</i></b>	ITDS1					
AT	Diesel Technology	Diesel Service	<b><i>DTAAS</i></b>	DTDSO					
AT	Diesel Technology	Diesel Technology	<b><i>DTAAS</i></b>						
AT	Diesel Technology	Diesel Truck	DTAAS				DDES1	DTDSO	
HM	Video/Audio Communication	Digital Cinema	VAAAS			VDCCE	VAAAS		
HM	Design, Interactivity & Media Arts	DIMA Entrepreneur	<b><i>DIMAS</i></b>	DIENO					
SS	Early Childhood Educator	Early Childhood Educator							
SS	Early Childhood Educator	Early Childhood Educator-Assistant				ECTC1	ECAS1		
SS	Early Childhood Educator	Early Childhood Family/Group Home Specialist						ECGHD	GSAAS
SS	Early Childhood Educator	Early Childhood Generalist						ECGSD	ECAS1
SS	Early Childhood Educator	Early Childhood Sign Language						ECSLD	GSAAS
SS	Early Childhood Educator	Early Childhood Spanish						ECSSD	GSAAS
AT	Apprentice Program	Electrical Apprenticeship	<b><i>ARAAS</i></b>	AREAO					
AT	Industrial and Commercial Trades	Electrical Mechanical Systems						IEMSD	GSAAS
AT	Industrial and Commercial Trades	Electrical Plant Maintenance						IEPSD	IMEM1
AT	Electrical Technology	Electrical Technology	ETAAS						

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Industrial and Commercial Trades	Electrical/Mechanic al Maintenance	<b>IMAS1</b>	IMEM1					
IE	Information Technology	Embedded Systems Technology	<b>INTAS</b>	ITESO					
BU	Business Management	Entrepreneurship	<b>BMAAS</b>	BMENO		BMECE	BMENO	BENSJ	BMENO
BU	Business Management	Financial Counseling						BFCSD	BMGEO
BU	Business Management	Financial Planning				BMPC1	BMFSO		
BU	Business Management	Financial Planning & Investment	<b>BMAAS</b>	BMFSO					
BU	Business Management	Financial Planning Specialist						BFPS1	BMGEO
BU	Business Management	Financial Services Management	<b>BMAAS</b>	BMFMO				BFSSD	BMFMO
BU	Business Management	Financial Services Specialist						BMFSD	BMGEO
HE	Fire Science Technology	Fire Science Technology	FSAAS						
CA	Horticulture, Land Systems, and Management	Floriculture	<b>HLAAS</b>	HLMFO				HLFCC	HLMFO
CA	Hospitality and Restaurant Leadership	Food and Event Management	<b>CHRAS</b>	CHFA1					
AT	Construction & Building Science	Framing and Finishing Specialist				CBFCE	CBRCO		
AT	Welding Technology	Gas Metal Arc Welding						WGMSD	WEAAS
AT	Welding Technology	Gas Tungsten Arc Welding						WGTSJ	WEAAS

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Construction & Building Science	General Construction/ Remodeling	<b>CBAAS</b>	CBGCO				CCRS	CBRF
HE	Professional Health Studies	General Health Studies Track	<b>PHSAS</b>	PHSGO					
IE	General Information Technology	General Information Technology	GITAS						
AT	Industrial and Commercial Trades	General Plant Maintenance						IGPS	IMEM1
GS	General Studies	General Studies	GSAAS						
HE	Criminal Justice	Generalist	<b>CJAAS</b>	CJGNO					
HM	Humanities	Global Perspectives						GLPC	GSAAS
HM	Design, Interactivity & Media Arts	Graphic Design	<b>DIMAS</b>	DIGDO					
CA	Horticulture, Land Systems, and Management	Grounds Management	<b>HLAAS</b>	HLMGO					
IE	Health Information Management Systems	Health Information Management Systems	<b>HIMAS</b>						
IE	Health Information Technology Professional	Health Information Technology						HITS	HITAS
IE	Health Information Technology Professional	Health Information Technology Professional	HITAS						
IE	Healthcare Information and Administration	Healthcare Information and Administration	HIAAS						
AT	Industrial and Commercial Trades	Healthy Homes			<b>IHHCE</b>				
AT	Industrial and Commercial Trades	Healthy Homes - Lead Abatement			<b>IHHCE</b>	IHHLO	GSAAS		

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Industrial and Commercial Trades	Healthy Homes - Residential Energy Management			<b>IHHCE</b>	IHHRO	GSAAS		
AT	Heating, Air Conditioning, and Refrigeration	Heat Pump						AHPSD	HAAAS
AT	Heating, Air Conditioning, and Refrigeration	Heat Systems						AHSSD	HAAAS
AT	Heating, Air Conditioning, and Refrigeration	Heating, Air Conditioning and Refrigeration Technology	HAAAS			HARCE	HAAAS		
AT	Diesel Technology	Heavy Equipment	<b>DTAAS</b>	DTHEO					
AT	Construction & Building Science	Home Energy Professional (Weatherization)						CHECC	GSAAS
HE	Criminal Justice	Homeland Security	<b>CJAAS</b>	CJHSO					
CA	Horticulture, Land Systems, and Management	Horticulture				HLHCE	HLMHO		
CA	Horticulture, Land Systems, and Management	Horticulture Management	<b>HLAAS</b>	HLMHO					
CA	Horticulture, Land Systems, and Management	Horticulture, Land Systems, and Management	<b>HLAAS</b>						
CA	Hospitality and Restaurant Leadership	Hospitality and Restaurant Leadership	<b>CHRAS</b>						
CA	Hospitality and Restaurant Leadership	Hospitality Entrepreneurship	<b>CHRAS</b>	CHBA1					
BU	Human Services	Human Services - General	HSAAS			HSGCE	HSAAS		

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HM	Design, Interactivity & Media Arts	Illustration	<b><i>DIMAS</i></b>	DILO					
AT	Industrial and Commercial Trades	Industrial and Commercial Trades	<b><i>IMAS1</i></b>						
AT	Industrial and Commercial Trades	Industrial Distribution	<b><i>IMAS1</i></b>	IMID1					
AT	Industrial and Commercial Trades	Industrial Distribution I				ID1CE	IMID1		
AT	Industrial and Commercial Trades	Industrial Distribution II				ID2CE	IMID1		
AT	Electrical Technology	Industrial Electrical						ETIS1	IMEM1
AT	Industrial and Commercial Trades	Industrial Electrical				IIECE	IMEM1		
GS	Pre-Secondary Education General Studies Transfer	Industrial Technology Endorsement (UNL)	GSAAS	ITAS1					
GS	Pre-Secondary Education General Studies Transfer	Industrial Technology Endorsement (Wayne State College)	GSAAS	PSITO					
IE	Computer Technology Transfer	Information Assurance	CTIAS						
IE	Information Technology	Information Technology	<b><i>INTAS</i></b>						
IE	Microcomputer Office Technology	Information Technology			<b><i>OSTC1</i></b>	OTTCO	OTOPO		
BU	Business Management	Insurance & Risk Management	<b><i>BMAAS</i></b>	BMIMO		BIRCE	BMIMO	BIMS1	BMIMO
BU	Business Management	Insurance Entrepreneurship						BMIED	BMGEO

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HM	Interior Design	Interior Design	IDAS1						
HM	Interior Design	Interior Design Entrepreneurship				IENCE	GSAAS		
BU	Business Management	International Business	<b>BMAAS</b>	BMIBO		BMICE	BMIBO	BIBSD	BMIBO
CA	Horticulture, Land Systems, and Management	Landscape Design	<b>HLAAS</b>	HLMLO				HLLCC	HLMLO
HM	Language Interpretation	Language Interpretation				LGICE	GSAAS		
HE	Criminal Justice	Law Enforcement	<b>CJAAS</b>	CJLEO					
AT	Industrial and Commercial Trades	Lead Abatement Professional						ILPCC	GSAAS
BU	Legal Studies	Legal Administrative Assistant	<b>LSAAS</b>	LSAAO					
BU	Legal Studies	Legal Studies	<b>LSAAS</b>						
TA	Transfer Agreements	Liberal Arts/Academic Transfer - Language Studies [Associate in Arts]*	LALAA						
TA	Transfer Agreements	Liberal Arts/Academic Transfer [Associate in Arts] *	LATAA						
TA	Transfer Agreements	Liberal Arts/Academic Transfer [Associate in Science] *	LATAS						
AT	Industrial and Commercial Trades	Logistics						INLCC	IMID1
CA	Hospitality and Restaurant Leadership	ManageFirst						CHMCC	CHFA1

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Computer Technology Transfer	Management Information Systems	CTMAS						
AT	Welding Technology	Manufacturing			<b>WELCE</b>	WELMO	WEAAS		
BU	Business Management	Marketing Administration				BMMCE	BMGEO	BMASD	BMGEO
AT	Construction & Building Science	Masonry & Concrete Construction						CMCSD	CBMCO
AT	Mechanical Design Technology	Mechanical Design Technology	DRAS1			DRTC1	DRAS1		
HM	Design, Interactivity & Media Arts	Media Generalist	<b>DIMAS</b>	DIMGO					
HE	Health	Medical Assisting			<b>MDACE</b>	PHSGO	PHSMO		
HE	Professional Health Studies	Medical Assisting Track	<b>PHSAS</b>	PHSMO					
IE	Health Information Management Systems	Medical Coding and Billing	<b>HIMAS</b>	HIMC1					
IE	Medical Office	Medical Coding and Billing Assistant			<b>MOPC1</b>	MOCB1	HIMC1		
IE	Medical Office	Medical Language Specialist I			<b>MOPC1</b>	MOLC1	HIMLO		
IE	Health Information Management Systems	Medical Language Specialist II	<b>HIMAS</b>	HIMLO					
IE	Medical Office	Medical Office			<b>MOPC1</b>				
IE	Medical Office	Medical Office Assistant			<b>MOPC1</b>	MOOA1	HIMO1		
IE	Health Information Management Systems	Medical Office Management	<b>HIMAS</b>	HIM01					
BU	Business Management	Merchandising Management	<b>BMAAS</b>	BMMMO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Microcomputer Office Technology	Microcomputer Office Technology			<b>OSTC1</b>				
IE	Electronics Technology	Microcomputer Repair				ELMCO	ELCEO		
HM	Design, Interactivity & Media Arts	Motion Graphics	<b>DIMAS</b>	DIMOO					
HM	Design, Interactivity & Media Arts	Narrative Structure and Visualization						DINCC	GSAAS
HE	Criminal Justice	Network Security & Computer Forensics	<b>CJAAS</b>	CJNSO					
IE	Information Technology	Network Technician			<b>ITTCE</b>	ITNCO	GITAS		
BU	Business Management	Not-For-Profit Management				BMNCE	GSAAS	BNPSD	GSAAS
AT	Process Operations Technology	Nuclear Power Plant Non-Licensed Operator	<b>PROAS</b>	PRPNO					
CA	Horticulture, Land Systems, and Management	Nursery and Landscape Management						HLNCC	HLMHO
HE	Nursing	Nursing Associate Degree	<b>ASNAS</b>	PHSGO					
IE	Microcomputer Office Technology	Office Applications			<b>OSTC1</b>	OTGC1	OTAAO		
IE	Office Technology	Office Professional	<b>OTAAS</b>	OTOPO					
IE	Office Technology	Office Technology	<b>OTAAS</b>						
BU	Business Management	Operations & Supply Chain Management.	<b>BMAAS</b>	BMOSO				BOSSD	BMOSO
IE	General Information Technology	Oracle Database Systems				ODBCE	GITAS		
BU	Business Management	Organizational Development	<b>BMAAS</b>	BMODO				BODSD	BMODO
BU	Business Management	Para-Financial Planner				BPFCE	BMGEO		
BU	Legal Studies	Paralegal	<b>LSAAS</b>	LSPA0					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
BU	Legal Studies	Paralegal Accelerated Certificate	<b>LSAAS</b>			LSACC	LSPA0		
HE	Health	Paramedicine			<b>PMPMC</b>	PHSGO	PHPMO		
HE	Professional Health Studies	Paramedicine Track	<b>PHSAS</b>	PHPMO					
HM	Photography	Photography	PTAS3						
AT	Welding Technology	Pipe			<b>WELCE</b>	WELPO	WEAAS		
AT	Welding Technology	Pipe Welding						WPWSD	WEAAS
CA	Horticulture, Land Systems, and Management	Plant Production & Propagation						HLPCC	HLMHO
HM	Theatre	Playwriting				THEPC	THEAA	THEPD	THEAA
AT	Apprentice Program	Plumbing Apprenticeship	<b>ARAAS</b>	ARPAO					
AT	Diesel Technology	Power Generation	<b>DTAAS</b>	DTPGO					
AT	Process Operations Technology	Power Plant	<b>PROAS</b>	PRPPO					
HE	Nursing	Practical Nursing			<b>LPNCE</b>	PHSGO	ASNAS		
AT	Industrial and Commercial Trades	Precision Machine Basics	<b>IMAS1</b>					IMBSD	IMPM1
AT	Industrial and Commercial Trades	Precision Machine Technology	<b>IMAS1</b>	IMPM1					
GS	General Studies Transfer Agreements	Pre-Criminal Justice (UNO)	GSAAS	PUCJO					
GS	General Studies Transfer Agreements	Pre-Health Related Business (Clarkson College)	GSAAS	PSHBO					
BU	Legal Studies	Pre-Law	<b>LSAAS</b>	LSPLO					
HE	Criminal Justice	Private Security	<b>CJAAS</b>	CJPSO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Process Operations Technology	Process Operations Technology/ Power Plant Operations	<b>PROAS</b>						
AT	Industrial and Commercial Trades	Production Maintenance						IPMSD	IMAS1
HM	Humanities	Professional Communication						PRCCC	GSAAS
HE	Professional Health Studies	Professional Health Studies	<b>PHSAS</b>						
LW	Literacy & Workplace Skills	Professional Skills						PSKSD	GSAAS
AT	Industrial and Commercial Trades	Programmable Logic Controllers						IPLSD	IMEM1
IE	Information Technology	Programming for Database/Web	<b>INTAS</b>	ITDWO					
IE	General Information Technology	Project Management	GITAS					PSPSD	GSAAS
BU	Business Management	Real Estate	<b>BMAAS</b>	BMRE1					
BU	Business Management	Real Estate Entrepreneurship						BMRED	BMGEO
AT	Heating, Air Conditioning, and Refrigeration	Refrigeration						ARFSD	HAAAS
AT	Construction & Building Science	Residential Carpentry	<b>CBAAS</b>	CBRCO				CRCSO	CBRCO
AT	Electrical Technology	Residential Electrical						ETRS1	ETAAS
AT	Construction & Building Science	Residential Finish Carpentry						CRFSD	CBRFO
AT	Construction & Building Science	Residential Finish Carpentry/ Cabinetry	<b>CBAAS</b>	CBRFO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HE	Health	Respiratory Care Technology	<b>RTAAS</b>	PHSGO					
HM	Video/Audio Communication Arts	Screenwriting				VACSE	GSAAS		
IE	Information Technology	Security Technician				ITSTO	GITAS		
IE	Information Technology	Server Administration	<b>INTAS</b>	ITSAO	<b>ITTCE</b>				
IE	Information Technology	Server Technician			<b>ITTCE</b>	ITSRO	GITAS		
AT	Welding Technology	Shielded Metal Arc Welding						WSMSD	WEAAS
CA	Horticulture, Land Systems, and Management	Small Market Farming	<b>HLAAS</b>	HLMSO				HLSCC	HLMSO
AT	Industrial and Commercial Trades	Soil Remediation						ISRCC	GSAAS
AT	Construction & Building Science	Solar Air Systems						SASSD	GSAAS
AT	Electrical Technology	Solar Electric Systems						SESSD	GSAAS
AT	Heating, Air Conditioning, and Refrigeration	Solar Heating Systems	HAAAS					SHSSD	GSAAS
AT	Process Operations Technology	Solar Hydronic Systems						SSHSD	GSAAS
AT	Construction & Building Science	Solar Technology						STSSD	GSAAS
AT	Plumbing	Solar Water Systems						SWSSD	GSAAS
HM	Video/Audio Communication Arts	Sound Recording				VSRCE	GSAAS		
HM	Spanish	Spanish for Business						SBPS1	GSAAS
HM	Spanish	Spanish for Healthcare						SMPS1	GSAAS

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Process Operations Technology	Stationary Engineer						PRESO	PRPNO
AT	Welding Technology	Structural			<b>WELCE</b>	WELSO	WEAAS		
AT	Civil Engineering Technology	Surveying						CESSD	CESTO
AT	Civil Engineering Technology	Surveying Technology	<b>CEAA1</b>	CESTO					
IE	Information Technology	Technician			<b>ITTCE</b>				
HM	Theatre	Theatre	THEAA						
HM	Theatre	Theatre Technology				THETC	THEAA	THETD	THEAA
IE	Information Technology	Transitional Object- Oriented Programming						ITOCC	GITAS
IE	General Information Technology	UNIX/LINUX Operating Systems				LNWSC	GITAS		
AT	Utility Line Technician	Utility Line Technician	UTAAS						
HM	Video/Audio Communication Arts	Video/Audio Communication Arts	VAAAS			VACCE	VAAAS		
IE	Information Technology	Web Author			<b>ITTCE</b>	ITWCO	GITAS		
HM	Design, Interactivity & Media Arts	Web Design	<b>DIMAS</b>	DIWDO					
IE	Information Technology	Web Development	<b>INTAS</b>	ITWDO					
HM	Design, Interactivity & Media Arts	Web Multimedia Production				DIWCE	DIWDO	DIWCC	GSAAS
AT	Welding Technology	Welding Technology	WEAAS		<b>WELCE</b>				

\*Liberal Arts Transfer degrees allow students to develop a degree plan that transfers to any four-year school and major. There are numerous versions of each transfer degree developed for specific majors at more than 30 colleges and universities. Students should meet with an academic advisor and/or refer to the MCC Articulation/Transfer webpage (<http://www.mccneb.edu/articulation/>) for information on their specific area of interest.

9/19/13

**METROPOLITAN COMMUNITY COLLEGE**  
**COLLEGE PROGRAMS AND PATHWAYS 2013-2014 (by Dean Area)**

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Apprentice Program	Apprentice Related Technology	<b>ARAAS</b>						
AT	Apprentice Program	Electrical Apprenticeship	<b>ARAAS</b>	AREAO					
AT	Apprentice Program	Plumbing Apprenticeship	<b>ARAAS</b>	ARPAO					
AT	Architectural Design Technology	Architectural Design Technology	ADAS1					AAISD	ADAS1
AT	Auto Collision Technology	Auto Collision Estimating						ACESD	ABAS1
AT	Auto Collision Technology	Auto Collision Technology	ABAS1			ABTC1	ABAS1		
AT	Automotive Technology	Automotive Brakes & Suspension						ABSSD	AUAAS
AT	Automotive Technology	Automotive Electronics						AAESD	AUAAS
AT	Automotive Technology	Automotive Technology	AUAAS						
AT	Automotive Technology	Automotive Transmissions & Transaxles						ATTSD	AUAAS
AT	Automotive Technology	Basic Automotive Service				AUTC1	AUAAS		
AT	Civil Engineering Technology	Building Construction Technology	<b>CEAA1</b>	CEBCO					
AT	Civil Engineering Technology	Civil Engineering Technology	<b>CEAA1</b>			CETCE	GSAAS		
AT	Civil Engineering Technology	Computer-Aided Drafting and Design						DDDSD	CEBCO
AT	Civil Engineering Technology	Surveying						CESSD	CESTO
AT	Civil Engineering Technology	Surveying Technology	<b>CEAA1</b>	CESTO					
AT	Construction & Building Science	Cabinetry Construction						CCCSD	CBRFO
AT	Construction & Building Science	Commercial Construction	<b>CBAAS</b>	CBCCO				CCOSD	CBCCO

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Construction & Building Science	Concrete and Masonry Specialist				CBMCE	CBMCO		
AT	Construction & Building Science	Concrete/Masonry Construction	<b>CBAAS</b>	CBMCO					
AT	Construction & Building Science	Construction and Building Science	<b>CBAAS</b>						
AT	Construction & Building Science	Construction Management	<b>CBAAS</b>	CBCMO				CCMSD	CBCMO
AT	Construction & Building Science	Framing and Finishing Specialist				CBFCE	CBRCO		
AT	Construction & Building Science	General Construction/Remodeling	<b>CBAAS</b>	CBGCO				CCRSD	CBRFO
AT	Construction & Building Science	Home Energy Professional (Weatherization)						CHECC	GSAAS
AT	Construction & Building Science	Masonry & Concrete Construction						CMCSD	CBMCO
AT	Construction & Building Science	Residential Carpentry	<b>CBAAS</b>	CBRCO				CRCSD	CBRCO
AT	Construction & Building Science	Residential Finish Carpentry						CRFSD	CBRFO
AT	Construction & Building Science	Residential Finish Carpentry/Cabinetry	<b>CBAAS</b>	CBRFO					
AT	Construction & Building Science	Solar Air Systems						SASSD	GSAAS
AT	Construction & Building Science	Solar Technology						STSSD	GSAAS
AT	Diesel Technology	CDL-A Truck Driving						CDLSD	GSAAS
AT	Diesel Technology	Diesel Service	<b>DTAAS</b>	DTDSO					
AT	Diesel Technology	Diesel Technology	<b>DTAAS</b>						
AT	Diesel Technology	Diesel Truck						DDES1	DTDSO
AT	Diesel Technology	Heavy Equipment	<b>DTAAS</b>	DTHEO					
AT	Diesel Technology	Power Generation	<b>DTAAS</b>	DTPGO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Electrical Technology	Building Electrical				ETBCE	ETAAS		
AT	Electrical Technology	Commercial Electrical						ETCS1	ETAAS
AT	Electrical Technology	Electrical Technology	ETAAS						
AT	Electrical Technology	Industrial Electrical						ETIS1	IMEM1
AT	Electrical Technology	Residential Electrical						ETRS1	ETAAS
AT	Electrical Technology	Solar Electric Systems						SESSD	GSAAS
AT	Heating, Air Conditioning and Refrigeration	Air Conditioning						AACSD	HAAAS
AT	Heating, Air Conditioning and Refrigeration	Heat Pump						AHPSD	HAAAS
AT	Heating, Air Conditioning and Refrigeration	Heat Systems						AHSSD	HAAAS
AT	Heating, Air Conditioning and Refrigeration	Heating, Air Conditioning and Refrigeration Technology	HAAAS			HARCE	HAAAS		
AT	Heating, Air Conditioning and Refrigeration	Refrigeration						ARFSD	HAAAS
AT	Heating, Air Conditioning and Refrigeration	Solar Heating Systems						SHSSD	GSAAS
AT	Industrial and Commercial Trades	Advanced Industrial Sales Representative						IAISD	IMID1
AT	Industrial and Commercial Trades	Beginning Industrial Sales Representative						IBISD	IMID1
AT	Industrial and Commercial Trades	Building Maintenance	<b>IMAS1</b>	IMCB2				IBMSD	IMCB2
AT	Industrial and Commercial Trades	Electrical Mechanical Systems						IEMSD	GSAAS

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Industrial and Commercial Trades	Electrical/Mechanic al Maintenance	<b>IMAS1</b>	IMEM1					
AT	Industrial and Commercial Trades	General Plant Maintenance						IGPSD	IMEM1
AT	Industrial and Commercial Trades	Healthy Homes			<b>IHHCE</b>				
AT	Industrial and Commercial Trades	Healthy Homes - Lead Abatement			<b>IHHCE</b>	IHHLO	GSAAS		
AT	Industrial and Commercial Trades	Healthy Homes - Residential Energy Management			<b>IHHCE</b>	IHHRO	GSAAS		
AT	Industrial and Commercial Trades	Industrial and Commercial Trades	<b>IMAS1</b>						
AT	Industrial and Commercial Trades	Industrial Distribution	<b>IMAS1</b>	IMID1					
AT	Industrial and Commercial Trades	Industrial Distribution I				ID1CE	IMID1		
AT	Industrial and Commercial Trades	Industrial Distribution II				ID2CE	IMID1		
AT	Industrial and Commercial Trades	Industrial Electrical				IIECE	IMEM1		
AT	Industrial and Commercial Trades	Lead Abatement Professional						ILPCC	GSAAS
AT	Industrial and Commercial Trades	Logistics						IMLCC	IMID1
AT	Industrial and Commercial Trades	Precision Machine Basics						IMBSD	IMPM1
AT	Industrial and Commercial Trades	Precision Machine Technology	<b>IMAS1</b>	IMPM1					
AT	Industrial and Commercial Trades	Production Maintenance						IPMSD	IMAS1
AT	Industrial and Commercial Trades	Programmable Logic Controllers						IPLSD	IMEM1
AT	Industrial and Commercial Trades	Soil Remediation						ISRCC	GSAAS
AT	Mechanical Design Technology	Computer-Aided Design						DCDSD	DRAS1
AT	Mechanical Design Technology	Computer-Aided Drafting						DCASD	DRAS1

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
AT	Mechanical Design Technology	Computer-Aided Manufacturing Design						DCMSD	DRAS1
AT	Mechanical Design Technology	Mechanical Design Technology	DRAS1			DRTC1	DRAS1		
AT	Plumbing	Solar Water Systems						SWSSD	GSAAS
AT	Process Operations Technology	Bio-Processing	<b>PROAS</b>	PRBPO					
AT	Process Operations Technology	Nuclear Power Plant Non-Licensed Operator	<b>PROAS</b>	PRPNO					
AT	Process Operations Technology	Power Plant	<b>PROAS</b>	PRPPO					
AT	Process Operations Technology	Process Operations Technology/Power Plant Operations	<b>PROAS</b>						
AT	Process Operations Technology	Solar Hydronic Systems						SSHSD	GSAAS
AT	Process Operations Technology	Stationary Engineer						PRESO	PRPNO
AT	Utility Line Technician	Utility Line Technician	UTAAS						
AT	Welding Technology	Gas Metal Arc Welding						WGMSD	WEAAS
AT	Welding Technology	Gas Tungsten Arc Welding						WGTSO	WEAAS
AT	Welding Technology	Manufacturing			<b>WELCE</b>	WELMO	WEAAS		
AT	Welding Technology	Pipe			<b>WELCE</b>	WELPO	WEAAS		
AT	Welding Technology	Pipe Welding						WPWSD	WEAAS
AT	Welding Technology	Shielded Metal Arc Welding						WSMSO	WEAAS
AT	Welding Technology	Structural			<b>WELCE</b>	WELSO	WEAAS		
AT	Welding Technology	Welding Technology	WEAAS		<b>WELCE</b>				
BU	Accounting	Accounting	ACAAS						
BU	Bookkeeping	Bookkeeping				BKPCE	GSAAS		
BU	Business Management	Business Management	<b>BMAAS</b>						

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
BU	Business Management	Business Management Generalist	<b>BMAAS</b>	BMGEO				BMGSD	BMGEO
BU	Business Management	Credit Management	<b>BMAAS</b>	BMCMO				BCMSD	BMCMO
BU	Business Management	Customer Service Management						BCSSD	GSAAS
BU	Business Management	Entrepreneurship	<b>BMAAS</b>	BMENO		BMECE	BMENO	BENS	BMENO
BU	Business Management	Financial Counseling						BFCSD	BMGEO
BU	Business Management	Financial Planning				BMPC1	BMFSO		
BU	Business Management	Financial Planning & Investment	<b>BMAAS</b>	BMFSO					
BU	Business Management	Financial Planning Specialist						BFPS1	BMGEO
BU	Business Management	Financial Services Management	<b>BMAAS</b>	BMFMO				BFSSD	BMFMO
BU	Business Management	Financial Services Specialist						BMFSD	BMGEO
BU	Business Management	Insurance & Risk Management	<b>BMAAS</b>	BMIMO		BIRCE	BMIMO	BIMS1	BMIMO
BU	Business Management	Insurance Entrepreneurship						BMIED	BMGEO
BU	Business Management	International Business	<b>BMAAS</b>	BMIBO		BMICE	BMIBO	BIBSD	BMIBO
BU	Business Management	Marketing Administration				BMMCE	BMGEO	BMASD	BMGEO
BU	Business Management	Merchandising Management	<b>BMAAS</b>	BMMMO					
BU	Business Management	Not-for-Profit Management				BMNCE	GSAAS	BNPSD	GSAAS
BU	Business Management	Operations & Supply Chain Mgmt.	<b>BMAAS</b>	BMOSO				BOSSD	BMOSO
BU	Business Management	Organizational Development	<b>BMAAS</b>	BMODO				BODSD	BMODO
BU	Business Management	Para-Financial Planner				BPFCE	BMGEO		
BU	Business Management	Real Estate	<b>BMAAS</b>	BMRE1					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
BU	Business Management	Real Estate	<b>BMAAS</b>	BMRE1					
BU	Business Management	Real Estate Entrepreneurship						BMRED	BMGEO
BU	Business Transfer	Business Transfer	BSTAA						
BU	Human Services	Chemical Dependency				CDCCE	CDAAS		
BU	Human Services	Chemical Dependency Counseling	CDAAS						
BU	Human Services	Human Services - General	HSAAS1			HSGCE	HSAAS1		
BU	Legal Studies	Legal Administrative Assistant	<b>LSAAS</b>	LSAAO					
BU	Legal Studies	Legal Studies	<b>LSAAS</b>						
BU	Legal Studies	Paralegal	<b>LSAAS</b>	LSPA0					
BU	Legal Studies	Paralegal Accelerated Certificate				LSACC	LSPA0		
BU	Legal Studies	Pre-Law	<b>LSAAS</b>	LSPLO					
CA	Culinary Arts & Management	Bakery & Pastry	<b>CAAS1</b>	CABA2		CBPCE	CABA2		
CA	Culinary Arts & Management	Culinary Arts	<b>CAAS1</b>	CACA1					
CA	Culinary Arts & Management	Culinary Arts and Management	<b>CAAS1</b>			CAMCE	CACA1		
CA	Culinary Arts & Management	Culinary Arts Foundations						CAFSD	CACR1
CA	Culinary Arts & Management	Culinary Research/ Culinology™ Transfer	<b>CAAS1</b>	CACR1					
CA	Horticulture, Land Systems, and Management	Arboriculture						HLACC	HLMHO
CA	Horticulture, Land Systems, and Management	Floriculture	<b>HLAAS</b>	HLMFO				HLFCC	HLMFO

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
CA	Horticulture, Land Systems, and Management	Grounds Management	<b>HLAAS</b>	HLMGO					
CA	Horticulture, Land Systems, and Management	Horticulture				HLHCE	HLMHO		
CA	Horticulture, Land Systems, and Management	Horticulture Management	<b>HLAAS</b>	HLMHO					
CA	Horticulture, Land Systems, and Management	Horticulture, Land Systems, and Management	<b>HLAAS</b>						
CA	Horticulture, Land Systems, and Management	Landscape Design	<b>HLAAS</b>	HLMLO				HLLCC	HLMLO
CA	Horticulture, Land Systems, and Management	Nursery and Landscape Management						HLNCC	HLMHO
CA	Horticulture, Land Systems, and Management	Plant Production & Propagation						HLPCC	HLMHO
CA	Horticulture, Land Systems, and Management	Small Market Farming	<b>HLAAS</b>	HLMSO				HLSCC	HLMSO
CA	Hospitality and Restaurant Leadership	Food and Event Management	<b>CHRAS</b>	CHFA1					
CA	Hospitality and Restaurant Leadership	Hospitality and Restaurant Leadership	<b>CHRAS</b>						
CA	Hospitality and Restaurant Leadership	Hospitality Entrepreneurship	<b>CHRAS</b>	CHBA1					
CA	Hospitality and Restaurant Leadership	ManageFirst						CHMCC	CHFA1
GS	General Studies	General Studies	GSAAS						
GS	General Studies Transfer Agreements	Pre-Criminal Justice (UNO)	GSAAS	PUCJO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
GS	General Studies Transfer Agreements	Pre-Health Related Business (Clarkson College)	GSAAS	PSHBO					
GS	Pre-Secondary Education General Studies Transfer	Industrial Technology Endorsement (UNL)	GSAAS	ITAS1					
GS	Pre-Secondary Education General Studies Transfer	Industrial Technology Endorsement (Wayne State College)	GSAAS	PSITO					
HE	Criminal Justice	Community-Based Corrections						CJCD1	CJCNO
HE	Criminal Justice	Corrections	<b>CJAAS</b>	CJCNO					
HE	Criminal Justice	Criminal Justice	<b>CJAAS</b>						
HE	Criminal Justice	Generalist	<b>CJAAS</b>	CJGNO					
HE	Criminal Justice	Homeland Security	<b>CJAAS</b>	CJHSO					
HE	Criminal Justice	Law Enforcement	<b>CJAAS</b>	CJLEO					
HE	Criminal Justice	Network Security & Computer Forensics	<b>CJAAS</b>	CJNSO					
HE	Criminal Justice	Private Security	<b>CJAAS</b>	CJPSO					
HE	Fire Science Technology	Fire Science Technology	FSAAS						
HE	Health	Dental Assisting			<b>DEACE</b>	GSAAS	PHSDO		
HE	Health	Medical Assisting			<b>MDACE</b>	PHSGO	PHSMO		
HE	Health	Paramedicine			<b>PMPMC</b>	PHSGO	PHPMO		
HE	Health	Respiratory Care Technology	<b>RTAAS</b>	PHSGO					
HE	Nursing	Nursing Associate Degree	<b>ASNAS</b>	PHSGO					
HE	Nursing	Practical Nursing			<b>LPNCE</b>	PHSGO	ASNAS		
HE	Professional Health Studies	Dental Assisting Track	<b>PHSAS</b>	PHSDO					
HE	Professional Health Studies	General Health Studies Track	<b>PHSAS</b>	PHSGO					
HE	Professional Health Studies	Medical Assisting Track	<b>PHSAS</b>	PHSMO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HE	Professional Health Studies	Paramedicine Track	<b>PHSAS</b>	PHPMO					
HE	Professional Health Studies	Professional Health Studies	<b>PHSAS</b>						
HM	Art	Art	ARTAA			ARTCE	ARTAA		
HM	Art	Art – Entrepreneurship for the Artist				AENCE	GSAAS		
HM	Design, Interactivity & Media Arts	2-D Animation	<b>DIMAS</b>	DI2DO					
HM	Design, Interactivity & Media Arts	3-D Animation and Games	<b>DIMAS</b>	DI3DO					
HM	Design, Interactivity & Media Arts	Design and Interactive Media Arts Entrepreneurship				DIMCE	DIENO		
HM	Design, Interactivity & Media Arts	Design, Interactivity and Media Arts	<b>DIMAS</b>						
HM	Design, Interactivity & Media Arts	DIMA Entrepreneur	<b>DIMAS</b>	DIENO					
HM	Design, Interactivity & Media Arts	Graphic Design	<b>DIMAS</b>	DIGDO					
HM	Design, Interactivity & Media Arts	Illustration	<b>DIMAS</b>	DIILO					
HM	Design, Interactivity & Media Arts	Media Generalist	<b>DIMAS</b>	DIMGO					
HM	Design, Interactivity & Media Arts	Motion Graphics	<b>DIMAS</b>	DIMOO					
HM	Design, Interactivity & Media Arts	Narrative Structure and Visualization						DINCC	GSAAS
HM	Design, Interactivity & Media Arts	Web Design	<b>DIMAS</b>	DIWDO					
HM	Design, Interactivity & Media Arts	Web Multimedia Production				DIWCE	DIWDO	DIWCC	GSAAS
HM	Humanities	Global Perspectives						GLPCC	GSAAS
HM	Humanities	Professional Communication						PRCCC	GSAAS

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
HM	Interior Design	Interior Design	IDAS1						
HM	Interior Design	Interior Design Entrepreneurship				IENCE	GSAAS		
HM	Language Interpretation	Language Interpretation				LGICE	GSAAS		
HM	Photography	Photography	PTAS3						
HM	Spanish	Spanish for Business						SBPS1	GSAAS
HM	Spanish	Spanish for Healthcare						SMPS1	GSAAS
HM	Theatre	Playwriting				THEPC	THEAA	THEPD	THEAA
HM	Theatre	Theatre	THEAA						
HM	Theatre	Theatre Technology				THETC	THEAA	THETD	THEAA
HM	Video/Audio Communication Arts	Digital Cinema				VDCCE	VAAAS		
HM	Video/Audio Communication Arts	Screenwriting				VACSE	GSAAS		
HM	Video/Audio Communication Arts	Sound Recording				VSRCE	GSAAS		
HM	Video/Audio Communication Arts	Video/Audio Communication Arts	VAAAS			VACCE	VAAAS		
ID	Interdisciplinary Studies	Critical Facilities Operations	CFOAS						
IE	Computer Technology Transfer	Computer Science	CTSAS						
IE	Computer Technology Transfer	Information Assurance	CTIAS						
IE	Computer Technology Transfer	Management Information Systems	CTMAS						
IE	Electronics Technology	Cisco Certified Network Associate						ECASD	ELNCO
IE	Electronics Technology	Cisco Network Technician	ELNCO						
IE	Electronics Technology	Cisco Networking				ELCCO	ELNCO		
IE	Electronics Technology	Computer Electronics	ELCEO						

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Electronics Technology	Microcomputer Repair				ELMCO	ELCEO		
IE	General Information Technology	Computer Programming				CPTCE	GITAS		
IE	General Information Technology	Database Systems				DBSCE	GITAS		
IE	General Information Technology	General Information Technology	GITAS						
IE	General Information Technology	Oracle Database Systems				ODBCE	GITAS		
IE	General Information Technology	Project Management						PSPSD	GSAAS
IE	General Information Technology	UNIX/LINUX Operating Systems				LNESC	GITAS		
IE	Health Information Management Systems	Health Information Management Systems	<b>HIMAS</b>						
IE	Health Information Management Systems	Medical Coding and Billing	<b>HIMAS</b>	HIMC1					
IE	Health Information Management Systems	Medical Language Specialist II	<b>HIMAS</b>	HIMLO					
IE	Health Information Management Systems	Medical Office Management	<b>HIMAS</b>	HIM01					
IE	Health Information Technology Professional	Health Information Technology						HITSD	HITAS
IE	Health Information Technology Professional	Health Information Technology Professional	HITAS						
IE	Healthcare Information and Administration	Healthcare Information and Administration	HIAAS						
IE	Information Technology	Data Center Management	<b>INTAS</b>	ITDCO					
IE	Information Technology	Data Center Technician			<b>ITTCE</b>	ITCCO	GITAS		
IE	Information Technology	Database Administration	<b>INTAS</b>	ITDAO					
IE	Information Technology	Desktop Support Specialist	<b>INTAS</b>	ITDS1					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Information Technology	Embedded Systems Technology	<b>INTAS</b>	ITESO					
IE	Information Technology	Information Technology	<b>INTAS</b>						
IE	Information Technology	Network Technician			<b>ITTCE</b>	ITNCO	GITAS		
IE	Information Technology	Programming for Database/Web	<b>INTAS</b>	ITDWO					
IE	Information Technology	Security Technician				ITSTO	GITAS		
IE	Information Technology	Server Administration	<b>INTAS</b>	ITSAO	<b>ITTCE</b>				
IE	Information Technology	Server Technician			<b>ITTCE</b>	ITSRO	GITAS		
IE	Information Technology	Technician			<b>ITTCE</b>				
IE	Information Technology	Transitional Object- Oriented Programming						ITOCC	GITAS
IE	Information Technology	Web Author			<b>ITTCE</b>	ITWCO	GITAS		
IE	Information Technology	Web Development	<b>INTAS</b>	ITWDO					
IE	Medical Office	Medical Coding and Billing Assistant			<b>MOPC1</b>	MOCB1	HIMC1		
IE	Medical Office	Medical Language Specialist I			<b>MOPC1</b>	MOLC1	HIMLO		
IE	Medical Office	Medical Office			<b>MOPC1</b>				
IE	Medical Office	Medical Office Assistant			<b>MOPC1</b>	MOOA1	HIMO1		
IE	Microcomputer Office Technology	Information Technology			<b>OSTC1</b>	OTTCO	OTOPO		
IE	Microcomputer Office Technology	Microcomputer Office Technology			<b>OSTC1</b>				
IE	Microcomputer Office Technology	Office Applications			<b>OSTC1</b>	OTGC1	OTAAO		
IE	Office Technology	Administrative Assistant	<b>OTAAS</b>	OTAAO					

DEAN AREA/ OTHER	AREA	PROGRAM	ASSOCIATE DEGREES (if code is in italics, use only option/ track codes)	DEGREE OPTION/ TRACK CODE	CERTIFICATES OF ACHIEVEMENT			CAREER CERTIFICATES	
					Umbrella (use option code)	Option Code	Pathway	Code	Pathway
IE	Office Technology	Customer Service Representative						PSCSD	GSAAS
IE	Office Technology	Office Professional	<b>OTAAS</b>	OTOPO					
IE	Office Technology	Office Technology	<b>OTAAS</b>						
LW	Literacy & Workplace Skills	Professional Skills						PSKSD	GSAAS
SS	Early Childhood Educator	Early Childhood Educator	ECAS1						
SS	Early Childhood Educator	Early Childhood Educator-Assistant				ECTC1	ECAS1		
SS	Early Childhood Educator	Early Childhood Family/Group Home Specialist						ECGHD	GSAAS
SS	Early Childhood Educator	Early Childhood Generalist						ECGSD	ECAS1
SS	Early Childhood Educator	Early Childhood Sign Language						ECSLD	GSAAS
SS	Early Childhood Educator	Early Childhood Spanish						ECSSD	GSAAS
TA	Transfer Agreements	Liberal Arts/Academic Transfer - Language Studies Associate in Arts)*	LALAA						
TA	Transfer Agreements	Liberal Arts/Academic Transfer [Associate in Arts] *	LATAA						
TA	Transfer Agreements	Liberal Arts/Academic Transfer [Associate in Science] *	LATAS						

\*Liberal Arts Transfer degrees allow students to develop a degree plan that transfers to any four-year school and major. There are numerous versions of each transfer degree developed for specific majors at more than 30 colleges and universities. Students should meet with an academic advisor and/or refer to the MCC Articulation/Transfer webpage (<http://www.mccneb.edu/articulation/>) for information on their specific area of interest.  
**9/19/13**

# 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

### Career Certificate:

Architectural Imaging

## Architectural Design Technology (ADAS1)

**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	67.0
<b>Total credit hours required</b>	<b>98.5</b>

### General education requirements (31.5 credit hrs.)

The general education requirement for this degree program exceeds 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. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra <sup>~</sup> Ⓒ	4.5
MATH 1430	Trigonometry <sup>~</sup> Ⓒ	4.5

#### Other

HMRL 1010	Human Relations Skills <sup>~</sup> ⒸⒹ	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> ⒸⒹ	4.5

### Major requirements for Architectural Design Technology (67.0 credit hrs.)

#### Courses

ARCH 1000	Appreciation of Architecture <sup>Ⓓ</sup>	4.5
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARCH 1120	Beginning REVIT (Building)	4.5
ARCH 1130	Intermediate REVIT (Building)	4.5
ARCH 1140	Advanced REVIT Architecture	4.5
ARCH 1200	Wood-Frame Architecture <sup>Ⓓ</sup>	8.0
ARCH 2410	Commercial Architecture <sup>Ⓓ</sup>	8.0
ARCH 2420	Renovation Architecture	8.0
ARCH 2520	Beginning 3-D Studio Max	4.0
ARCH 2530	Intermediate 3-D Studio Max	4.0
ARCH 2600	High-Rise Architecture <sup>Ⓓ</sup>	8.0

## Suggested Guide for Courses

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	Appreciation of Architecture	4.5
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
MATH 1310	Intermediate Algebra	4.5

#### Second quarter

ARCH 1200	Wood-Frame Architecture	8.0
INFO 1001	Information Systems and Literacy	4.5
MATH 1430	Trigonometry	4.5

#### Third quarter

ARCH 1120	Beginning REVIT (Building)	4.5
ARCH 1130	Intermediate REVIT (Building)	4.5
ARCH 2410	Commercial Architecture	8.0

### Second Year

#### Fifth quarter

ARCH 2420	Renovation Architecture	8.0
	English level I	4.5
HMRL 1010	Human Relations Skills	4.5

#### Sixth quarter

ARCH 2520	Beginning 3-D Studio Max	4.0
ARCH 2530	Intermediate 3-D Studio Max	4.0
ARCH 2600	High-Rise Architecture	8.0

#### Seventh quarter

ARCH 1140	Advanced REVIT Architecture	4.5
	English level II	4.5
	Humanities/social science elective	4.5

## 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	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARCH 1120	Beginning REVIT (Building)	4.5
ARCH 1130	Intermediate REVIT (Building)	4.5
ARCH 2520	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
<b>Total credit hours required</b>	<b>97.5–105.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills options (p. 40)

MATH 1240 is recommended.

### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

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

### Courses

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 1210	Nonstructural Repair II	6.0
AUTB 1220	Nonstructural Repair III	6.0
AUTB 2120	Structural Repair III	3.0
AUTB 2230	Nonstructural Repair IV	6.0
AUTB 2240	Nonstructural Repair V	6.0
	OR	
AUTB 2981	Auto Collision Internship	variable
AUTB 2241	Nonstructural Repair VI	6.0
	OR	
AUTB 2981	Auto Collision Internship	variable
AUTB 2300	Automotive Refinishing I	3.0
AUTB 2310	Automotive Refinishing II	6.0
AUTB 2450	Collision Estimating I	3.0
AUTB 2460	Collision Estimating II	3.0
AUTB 2550	Electrical and Mechanical Systems	3.0
RDLS 1200	College Success Strategies	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	4.5
INFO 1001	Information Systems and Literacy	4.5
RDLS 1200	College Success Strategies	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~ <sup>Ⓢ</sup>	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~ <sup>Ⓢ</sup> Ⓢ	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
<b>Total credit hours required</b>	<b>49.5</b>

**General education requirements (13.5 credit hrs.)****Communications**

English level I 4.5

See Communications course options (p. 38)

**Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences options (p. 38)

**Quantitative/numeracy skills**

Mathematics 4.5

See Quantitative/numeracy skills options (p. 40)

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

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 1210	Nonstructural Repair II	6.0
AUTB 1220	Nonstructural Repair III	6.0
AUTB 2120	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. 75), 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 adjuster 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	Nonstructural Repair I	6.0
AUTB 1210	Nonstructural Repair II	6.0
AUTB 2300	Automotive Refinishing I	3.0
AUTB 2450	Collision Estimating I	3.0
AUTB 2460	Collision Estimating II	3.0
AUTB 2550	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 START (Student Training in Automotive Repair Technology) program includes an associate degree program and career certificates designed to meet the technical needs of an industry that has been revolutionized by electronics and computerization. The associate degree program provides a sound background in the major automotive repair areas.

Entrance into the Automotive Technology program is determined by an application process. Contact an academic advisor or faculty member for an application packet.

### Graduation Requirements

General education	27.0
Major requirements	83.0
<b>Total credit hours required</b>	<b>110.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences options (p. 38)

### Quantitative/Numeracy Skills

MATH 1240	Applied Mathematics	4.5
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### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Automotive Technology (83.0 credit hrs.)

#### Courses

AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 1220	Automotive Electricity and Electronics II	6.0
AUTT 1510	Brake Systems	6.0
AUTT 1620	Climate Control, Heating and Air Conditioning	6.0
AUTT 1710	Engine Mechanical Service	6.0
AUTT 2310	Suspension Systems	6.0
AUTT 2410	Basic Driveability	6.0
AUTT 2430	Advanced Driveability	6.0
AUTT 2810	Manual Transmissions and Drivetrains	6.0
AUTT 2820	Automatic Transmissions	6.0
AUTT 2830	Automatic Transaxles	6.0
AUTT 2981	On-The-Job Training/Work Experience	8.0
WELD 1261	Combination Welding - Automotive	3.0

AUTT 2981: \*\*Students must complete 18.0 credit hours in automotive courses before they may register for AUTT 2981 On-the-Job Training/Work Experience

If an internship at a repair facility cannot be obtained or a special needs situation arises, AUTT 2981 can be completed at the South Omaha Campus automotive lab after completing the two-year course. Entry requirements apply, so contact an Automotive instructor for additional information.

## Automotive Advising Tips

- AUTT 1010 and AUTT 1210 are offered during the Summer quarter. Students for the Automotive Technology program are selected based on their performance in AUTT 1010.
- Before enrolling in AUTT 1010, students must have college-level reading and math skills and earn a minimum score on a mechanical aptitude test.
- As needed to achieve college-level reading skills, students may be required to complete RDLS 0100 College Reading Strategies prior to or during the Fall quarter. Equivalent classes may be accepted.
- Students are required to purchase the Internship Tool Set (ITS) before enrolling in AUTT 2981. 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 Student Handbook at [www.mccneb.edu/programs/autt.asp](http://www.mccneb.edu/programs/autt.asp).

The Automotive Technology program has ASE MASTER certification in all areas of training. This is the highest level of achievement recognized by the National Institute for Automotive Service Excellence.

## Automotive Technology – Basic Automotive Service (AUTC1)

**Award:** Certificate of achievement

**Program location:** South Omaha Campus

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
<b>Total credit hours required</b>	<b>49.5</b>

### General education requirements (13.5 credit hrs.)

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

#### **Quantitative**

MATH 1240 Applied Mathematics 4.5

### Major requirements for Automotive Technology – Basic Automotive Service (36.0 credit hrs.)

#### **Courses**

AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 1220	Automotive Electricity and Electronics II	6.0
AUTT 1510	Brake Systems	6.0
AUTT 1620	Climate Control, Heating and Air Conditioning	6.0
AUTT 1710	Engine Mechanical Service	6.0

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	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 1220	Automotive Electricity and Electronics II	6.0
AUTT 2410	Basic Driveability	6.0

## **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 (24.0 credit hrs.)**

#### **Courses**

AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 1510	Brake Systems	6.0
AUTT 2310	Suspension Systems	6.0

## **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 (30 credit hrs.)**

#### **Courses**

AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 2810	Manual Transmissions and Drivetrains	6.0
AUTT 2820	Automatic Transmissions	6.0
AUTT 2830	Automatic Transaxles	6.0

## 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

Surveying Technology

### Certificate of Achievement:

Civil Engineering Technology

### 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	17.0–19.5
<b>Total credit hours required</b>	<b>106.5–109.0</b>

### General education requirements (27 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/Numeracy Skills

MATH 1310	Intermediate Algebra <sup>~</sup> <sup>Ⓢ</sup>	4.5
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#### Other

HMRL 1010	Human Relations Skills <sup>~</sup> <sup>Ⓢ</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> <sup>Ⓢ</sup>	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
MATH 1430	Trigonometry <sup>~</sup> <sup>Ⓢ</sup>	4.5
PHYS 1010	Applied Physics	4.5
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 (17.0-19.5 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 (17.0 credit hours)

Civil Engineering Technology – Building Construction Technology (CEBCO) (p. 81)

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

Civil Engineering Technology – Surveying Technology (CESTO) (p. 81)

## **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	17.0
<b>Total credit hours required</b>	<b>106.5</b>

### **General education requirements**

See General education requirements for Civil Engineering Technology (p. 80)

### **Major requirements for Civil Engineering Technology**

See Major requirements for Civil Engineering Technology (p. 80)

### **Option requirements for Civil Engineering Technology – Building Construction Technology (17.0 credit hrs.)**

#### **Courses**

SCET 1050	Building Construction	3.0
SCET 1070	Contracts and Specifications	3.0
SCET 1080	Estimating Construction Costs	3.0
SCET 1130	Beginning REVIT (Structure)	4.0
	OR	
ARCH 1120	Beginning REVIT (Building)	4.5
SCET 1140	Intermediate REVIT (Structure)	4.0

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.

## **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
<b>Total credit hours required</b>	<b>109.0</b>

### **General education requirements**

See General education requirements for Civil Engineering Technology (p. 80)

### **Major requirements for Civil Engineering Technology**

See Major requirements for Civil Engineering Technology (p. 80)

### **Option requirements for Civil Engineering Technology – Surveying Technology (19.5 credit hrs.)**

#### **Courses**

SCET 1200	Surveying Fundamentals	6.5
SCET 2220	Transit and Traverse Surveying	6.5
SCET 2240	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
<b>Total credit hours required</b>	<b>53.0</b>

### **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
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See Communications course options (p. 38)

#### **Quantitative/numeracy skills**

MATH 1430	Trigonometry <sup>2</sup>	4.5
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#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38). Additional prerequisite(s) may be required.

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

#### **Courses**

PHYS 1010	Applied Physics	4.5
SCET 1000	Civil Engineering Fundamentals	3.0
SCET 1050	Building Construction	3.0
SCET 1060	Engineering Geology	3.0
SCET 1070	Contracts and Specifications	3.0
SCET 1080	Estimating Construction Costs	3.0
SCET 1090	ArcGIS Fundamentals	4.5
SCET 1120	AutoCAD Essentials	9.0
SCET 1200	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	AutoCAD Essentials	9.0
SCET 1200	Surveying Fundamentals	6.5
SCET 2220	Transit and Traverse Surveying	6.5
SCET 2240	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 (26.0 credit hrs.)**

#### **Courses**

SCET 1120	AutoCAD Essentials	9.0
SCET 1130	Beginning REVIT (Structure)	4.0
	OR	
ARCH 1120	Beginning REVIT (Building)	4.5
SCET 1140	Intermediate REVIT (Structure)	4.0
SCET 1150	AutoCAD Civil 3-D	9.0

ARCH 1120: additional prerequisite(s) may be required.

## 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
<b>Total credit hours required</b>	<b>97.0–104.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended but may not transfer.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended but may not transfer.

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended but may not transfer.

#### Other

HMRL 1010	Human Relations Skills 	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	Introduction to Building Construction	3.5
CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 2050	Builders Level, Transit, and Building Layout	3.5
CNST 2100	Construction Safety (30-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. 84)

#### **Concrete/Masonry Construction (57.5 credit hrs.)**

Construction and Building Science – Concrete/Masonry Construction (CBMCO) (p. 85)

#### **Construction Management (59.0 credit hrs.)**

Construction and Building Science – Construction Management (CBCMO) (p. 85)

#### **General Construction/Remodeling (57.5 credit hrs.)**

Construction and Building Science – General Construction/Remodeling (CBGCO) (p. 86)

#### **Residential Carpentry (51.5 credit hrs.)**

Construction and Building Science – Residential Carpentry (CBRCO) (p. 86)

#### **Residential Finish Carpentry/Cabinetry (56.5 credit hrs.)**

Construction and Building Science – Residential Finish Carpentry/Cabinetry (CBRFO) (p. 87)

## **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
<b>Total credit hours required</b>	<b>102.0</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

### **Option requirements for Construction and Building Science – Commercial Construction (50.0 credit hrs.)**

#### **Courses**

CNST 1015	Print Reading III - Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1255	Commercial Framing	6.5
CNST 1262	Cabinet Design, Manufacturing, and Assembly	9.0
CNST 1355	Commercial Finish	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	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
<b>Total credit hours required</b>	<b>103.0</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

### **Option requirements for Construction and Building Science – Concrete/Masonry Construction (51.0 credit hrs.)**

#### **Courses**

CNST 1015	Print Reading III - Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2130	Construction Estimating	7.0
CNST 2981	Internship	variable
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0

### **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.

## **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
<b>Total credit hours required</b>	<b>104.5</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

### **Option requirements for Construction and Building Science – Construction Management (52.5 credit hrs.)**

#### **Courses**

CNST 1015	Print Reading III - Commercial	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2130	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
<b>Total credit hours required</b>	<b>103.0</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

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

#### **Courses**

CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Remodeling and Deconstruction	6.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2130	Construction Estimating	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.)**

#### **Courses**

Select 6.5 credit hours from the following subjects:

ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLMS, 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 – 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
<b>Total credit hours required</b>	<b>97.0</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

### **Option requirements for Construction and Building Science – Residential Carpentry (44.0 credit hrs.)**

#### **Courses**

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

### **Electives for Construction and Building Science – Residential Carpentry (7.5 credit hrs.)**

#### **Courses**

Select 7.5 credit hours from the following subjects:

ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLMS, 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 – 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.

### **Graduation Requirements**

General education	27.0
Major requirements	18.5
Option requirements	53.5
Electives	3.0
<b>Total credit hours required</b>	<b>102.0</b>

### **General education requirements**

See General education requirements for Construction and Building Science (p. 83)

### **Major requirements for Construction and Building Science**

See Major requirements for Construction and Building Science (p. 83)

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

#### **Courses**

CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Remodeling and Deconstruction	6.5
CNST 1250	Interior Finish	6.5
CNST 1262	Cabinet Design, Manufacturing, and Assembly	9.0
CNST 1270	General Painting, Staining, and Cabinet Finishing	3.0
CNST 1370	Exterior Finish	6.5
CNST 2130	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.)**

#### **Courses**

Select 3.0 credit hours from the following subjects:

ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HLMS, 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
<b>Total credit hours required</b>	<b>53.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

ENGL 1220 is recommended but may not transfer.

#### **Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended but may not transfer.

#### **Quantitative/numeracy skills**

Mathematics 4.5

See Quantitative/numeracy skills course options (p. 40)

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	Print Reading II - Residential/Light Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2050	Builders Level, Transit, and Building Layout	3.5

## **Construction 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
<b>Total credit hours required</b>	<b>50.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

ENGL 1220 is recommended but may not transfer.

#### **Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended but may not transfer.

#### **Quantitative/numeracy skills**

Mathematics 4.5

See Quantitative/numeracy skills course options (p. 40)

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	Print Reading II - Residential/Light Commercial	3.5
CNST 1250	Interior Finish	6.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2050	Builders Level, Transit, and Building Layout	3.5
CNST 2360	Roof Framing	6.5
CNST 2380	Stair Construction	3.5

## **Cabinetry Construction (CCCS)**

**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	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1262	Cabinet Design, Manufacturing, and Assembly	9.0
CNST 1270	General Painting, Staining, and Cabinet Finishing	3.0
CNST 2100	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	Print Reading II - Residential/Light Commercial	3.5
CNST 1015	Print Reading III - Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1255	Commercial Framing	6.5
CNST 1510	Concrete and Wall Forms	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	Introduction to Building Construction	3.5
CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1015	Print Reading III - Commercial	3.5
CNST 2100	Construction Safety (30-Hour)	4.5
CNST 2130	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 (CCRSB)**

**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 (27.5 credit hrs.)**

#### **Courses**

CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1220	Remodeling and Deconstruction	6.5
CNST 1250	Interior Finish	6.5
CNST 2100	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.)**

#### **Courses**

CNST 1050	Introduction to Carpentry	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2100	Construction Safety (30-Hour)	4.5
WELD 1500	Shielded Metal Arc Welding (Stick)	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	Introduction to Building Construction	3.5
CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety (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	Introduction to Building Construction	3.5
CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety (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 industry accepted 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	Introduction to Carpentry	3.5
CNST 1080	Healthy Homes Foundations	1.0
CNST 1110	Construction Safety (10-Hour)	1.0
INCT 1020	Lead Safe Practices I	1.0
SNRG 1120	Weatherization Installer Fundamentals	4.0
SNRG 1121	Weatherization Installer Intermediate	4.0
SNRG 1124	Weatherization Installer - Mobile Homes	3.0
SNRG 1125	Combustion Appliance Zone (CAZ) Training	1.5
SNRG 1126	Weatherization Crew Chief	2.5
SNRG 1130	Home Energy Auditor - Single Family	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	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1110	Construction Safety (10-Hour)	1.0
SNRG 1240	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	Solar Air Install 2 - Ventilation	1.5
SNRG 1253	Solar Air Install 3 - Blower	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	Construction Safety (10-Hour)	1.0
SNRG 1220	Solar Electric Systems Design	4.5
<b>Select one course from the following:</b>		
SNRG 1240	Solar Air Systems Design	4.5
SNRG 1260	Solar Water Systems Design	4.5
SNRG 1265	Solar Hydronic Systems	4.5

#### **Select a minimum of three courses from the following:**

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
SNRG 1251	Solar Air Install 1 - Collectors	1.5
SNRG 1252	Solar Air Install 2 - Ventilation	1.5
SNRG 1253	Solar Air Install 3 - Blower	1.5
SNRG 1271	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

#### **Select at least 9.5 credit hours from the following:**

CNST 1010	Print Reading II - Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
ELTR 1200	Basic Electricity	6.5
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
HVAC 1210	Gas Heat	3.0
HVAC 1211	Electric Heat	3.0
HVAC 2220	All-Weather Systems (Heat Pumps)	3.0
INCT 2050	Problem-Solving	3.0
PLAP 1110	Plumbing IA	7.0
PLAP 1120	Plumbing IB	7.0
SNRG 1212	Solar Electric Seminar	1.0
SNRG 1213	Solar Thermal Seminar	1.0
SNRG 1230	Solar Electric Install - Overview	1.0
SNRG 1250	Solar Air Install - Overview	1.0
SNRG 1270	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:

Diesel Truck

CDL-A Truck Driving

## 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
<b>Total credit hours required</b>	<b>98.0–103.0</b>

## General education requirements (27.0 credit hrs.)

### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

### Other

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	4.5

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

### Courses

DESL 1000	Diesel Preventive Maintenance	3.0
DESL 1110	Diesel Engine Fuel Systems	3.0
DESL 1210	Electricity and Electronics	6.0
DESL 1230	Diesel Engine Fundamentals	4.0
DESL 1301	CDL for Diesel Technicians I	2.5
DESL 1302	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	Emissions and Maintenance	3.0

## Option requirements for Diesel Technology (37.0-41.0 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. 93)

### **Heavy Equipment (39.0-42.0 credit hrs.)**

Diesel Technology – Heavy Equipment (DTHEO) (p. 93)

### **Power Generation (37.0-41.0 credit hrs.)**

Diesel Technology – Power Generation (DTPGO) (p. 94)

## **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
<b>Total credit hours required</b>	<b>99.0–102.0</b>

### **General education requirements**

See General education requirements for Diesel Technology (p. 92)

### **Major requirements for Diesel Technology**

See Major requirements for Diesel Technology (p. 92)

### **Option requirements for Diesel Technology – Diesel Service (38.0-41.0 credit hrs.)**

#### **Courses**

DESL 1200	Fundamentals of Hydraulics	3.0
DESL 1620	Climate Control/Heating and Air Conditioning	4.0
DESL 2100	Heavy Duty Drivetrain	4.0
DESL 2120	Automatic and Automated Drivetrains	3.0
DESL 2150	Truck ABS and Brakes	4.0
DESL 2200	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
<b>Total credit hours required</b>	<b>100.0–103.0</b>

### **General education requirements**

See General education requirements for Diesel Technology (p. 92)

### **Major requirements for Diesel Technology**

See Major requirements for Diesel Technology (p. 92)

### **Option requirements for Heavy Equipment (39.0-42.0 credit hrs.)**

#### **Courses**

DESL 1200	Fundamentals of Hydraulics	3.0
DESL 1220	Advanced Diesel Hydraulics	6.0
DESL 1620	Climate Control/Heating and Air Conditioning	4.0
DESL 2110	Heavy Equipment Drivetrain	6.0
DESL 2120	Automatic and Automated Drivetrains	3.0
DESL 2250	Field Service Maintenance	6.0
DESL 2981	Diesel Internship I	8.0
WELD 1262	Quick Start	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	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
<b>Total credit hours required</b>	<b>98.0–102.0</b>

### General education requirements

See General education requirements for Diesel Technology (p. 92)

### Major requirements for Diesel Technology

See Major requirements for Diesel Technology (p. 92)

### Option requirements for Diesel Technology – Power Generation (37.0-41.0 credit hrs.)

#### Courses

DESL 1115	Alternative Fueled Engines	3.0
DESL 2100	Heavy Duty Drivetrain	4.0
DESL 2215	Diesel Generator Controls	3.0
DESL 2983	Diesel Internship III	4.0
DESL 2984	Diesel Internship IV	4.0
UTIL 1020	Electricity I	5.5
UTIL 1040	Generator Theory	6.0
UTIL 2020	Transformer Theory	5.5
UTIL 2040	Power Generator Applications	6.0

DESL 2100 is optional but recommended.

## 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 (33.0-36.0 credit hrs.)

#### Courses

DESL 1000	Diesel Preventive Maintenance	3.0
DESL 1210	Electricity and Electronics	6.0
DESL 1230	Diesel Engine Fundamentals	4.0
DESL 1620	Climate Control/Heating and Air Conditioning	4.0
DESL 2100	Heavy Duty Drivetrain	4.0
DESL 2120	Automatic and Automated Drivetrains	3.0
DESL 2150	Truck ABS and Brakes	4.0
DESL 2200	Steering and Suspension	4.0
WELD 1261	Combination Welding - Automotive	3.0

DESL 2120 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.

## 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
<b>Total credit hours required</b>	<b>99.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

### Other

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	4.5

### Major requirements for Electrical Apprenticeship (16.5 credit hrs.)

#### Courses

CNST 2100	Construction Safety (30-Hour)	4.5
ELTR 1350	Electrical Print Reading	3.0
INCT 1212	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

Commercial Electrical

Industrial 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
<b>Total credit hours required</b>	<b>99.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

### Other

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	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
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0
INCT 2050	Problem-Solving	3.0
INCT 2231	Programmable Logic Controllers I	4.5

## Suggested Guide for Courses

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

### Electrical Technology Coursework – Traditional Track

#### First Year

##### First quarter (Fall)

ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
MATH 1240	Applied Mathematics	4.5

##### Second quarter (Winter)

INCT 2050	Problem-Solving	3.0
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓔ	4.5
ELTR 1210	Residential Wiring	9.0

##### Third quarter (Spring)

ELTR 1220	Commercial Wiring	9.0
ENGL 1220	Technical Writing <sup>~</sup> Ⓔ	4.5
HMRL 1010	Human Relations Skills <sup>~</sup> Ⓔ	4.5

##### Fourth quarter (Summer)

ELTR 2981	Internship	8.0
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#### Second Year

##### Fifth quarter (Fall)

ELTR 1350	Electrical Print Reading	3.0
ENGL 1240	Oral and Written Reports <sup>~</sup> Ⓔ	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 – 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
<b>Total credit hours required</b>	<b>53.5</b>

### General education requirements (13.5 credit hrs.)

#### Communications

ENGL 1220	Technical Writing <sup>~</sup> Ⓔ	4.5
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#### Quantitative/numeracy skills

MATH 1240	Applied Mathematics	4.5
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#### Other

INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓔ	4.5
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### Major requirements for Electrical Technology – Building Electrical (40.0 credit hrs.)

#### Courses

ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9.0
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	National Electrical Code	4.5
INCT 1000	Industrial Safety and Health	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	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	National Electrical Code	4.5
INCT 1000	Industrial Safety and Health	4.5

**Industrial Electrical (ETIS1)****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	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5

**Commercial Electrical (ETCS1)****Award:** Career certificate**Program location:** South Omaha Campus

This career certificate provides the minimum skills to get an entry-level job wiring in a commercial building.

**Requirements for Commercial Electrical career certificate (40.0 credit hrs.)****Courses**

ELTR 1200	Basic Electricity	6.5
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	National Electrical Code	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0

**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 (24.5 credit hrs.)****Courses**

ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 2050	Problem-Solving	3.0
SNRG 1220	Solar Electric Systems Design	4.5
SNRG 1230	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 hands-on activities to facilitate learning and understanding of these fields. Potential employment opportunities exist in local air conditioning, refrigeration, and heating companies, both large and small.

### Graduation Requirements

General education	27.0
Major requirements	70.0
<b>Total credit hours required</b>	<b>97.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences options (p. 38)

PSYC 1000 is recommended.

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

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

#### Courses

ACCT 1050	Bookkeeping	3.0
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
HVAC 2220	All-Weather Systems (Heat Pumps)	3.0
HVAC 2221	Installation and Service Problems	3.0
HVAC 2320	Advanced Commercial Refrigeration	3.0
HVAC 2400	Blueprint Reading for Air Conditioning	3.0
HVAC 2420	Advanced Residential Air Conditioning	3.0
HVAC 2421	Advanced Commercial Air Conditioning	3.0
HVAC 2550	Air Conditioning (Commercial)	3.0
HVAC 2560	Sheet Metal Layout	3.0
HVAC 2570	Automated Building Controls	3.0

Select 4.0 credit hours of electives.

## Heating, Air Conditioning and Refrigeration 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
<b>Total credit hours required</b>	<b>49.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Humanities/Social Sciences**

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

Mathematics 4.5

See Quantitative/numeracy skills course options (p. 40)

### **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 Application	6.0
HVAC 1210	Gas Heat	3.0
HVAC 1540	All-Weather Systems (Conventional)	3.0
HVAC 2220	All-Weather Systems (Heat Pumps)	3.0
HVAC 2400	Blueprint Reading for Air Conditioning	3.0
HVAC 2420	Advanced Residential Air Conditioning	3.0
HVAC 2421	Advanced Commercial Air Conditioning	3.0
HVAC 2550	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	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 2220	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	Refrigeration Electrical Theory and Application	6.0
HVAC 1210	Gas Heat	3.0
HVAC 1211	Electric Heat	3.0
HVAC 1220	Oil Burners	3.0
HVAC 2220	All-Weather Systems (Heat Pumps)	3.0
HVAC 2221	Installation and Service Problems	3.0
HVAC 2570	Automated Building Controls	3.0

## 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	Refrigeration Electrical Theory and Application	6.0
HVAC 1210	Gas Heat	3.0
HVAC 1211	Electric Heat	3.0
HVAC 2220	All-Weather Systems (Heat Pumps)	3.0
SNRG 1240	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	Solar Air Install 2 - Ventilation	1.5
SNRG 1253	Solar Air Install 3 - Blower	1.5

## 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	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 1330	Commercial Refrigeration Installation	3.0
HVAC 1331	Commercial Refrigeration Service	3.0
HVAC 1500	Air Conditioning, Domestic Refrigeration, and Appliance Repair	3.0

## 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 problem-solving 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 Technology

### Certificate of Achievement:

Healthy Homes

- Lead Abatement
- 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

Lead Abatement Professional

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 problem-solving 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.

### Graduation Requirements

General education	27.0
Major requirements	7.5
Option requirements	61.5–71.0
<b>Total credit hours required</b>	<b>96.0–105.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

#### Other

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	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 (61.5-71.0 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. 103)

#### ***Electrical Mechanical Maintenance (64.5 credit hrs.)***

Industrial and Commercial Trades – Electrical/Mechanical Maintenance (IMEM1) (p. 104)

#### ***Industrial Distribution (71.0 credit hrs.)***

Industrial and Commercial Trades – Industrial Distribution (IMID1) (p. 105)

#### ***Precision Machine Technology (61.5 credit hrs.)***

Industrial and Commercial Trades – Precision Machine Technology (IMPM1) (p. 106)

### **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
<b>Total credit hours required</b>	<b>96.5</b>

### **General education requirements**

See General education requirements for Industrial and Commercial Trades (p. 102)

### **Major requirements for Industrial and Commercial Trades**

See Major requirements for Industrial and Commercial Trades (p. 102)

### **Option requirements for Industrial and Commercial Trades – Building Maintenance (62.0 credit hrs.)**

#### ***Courses***

ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9.0
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6.0
INCT 1301	Home and Building Maintenance Carpentry	6.5
INCT 1302	Stationary Engineering I	3.0
INCT 1303	Basic Plumbing	6.5
	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	64.5
<b>Total credit hours required</b>	<b>99.0</b>

### **General education requirements**

See General education requirements for Industrial and Commercial Trades (p. 102)

### **Major requirements for Industrial and Commercial Trades**

See Major requirements for Industrial and Commercial Trades (p. 102)

### **Option requirements for Industrial and Commercial Trades – Electrical/Mechanical Maintenance (64.5 credit hrs.)**

#### **Courses**

ELTR 1200	Basic Electricity	6.5
INCT 1050	Mechanical Print Reading	4.0
INCT 1212	Motor and Machine Controls	9.0
INCT 1303	Basic Plumbing	6.5
INCT 2060	Mechanical Power Systems	4.0
INCT 2070	Hydraulics and Pneumatics	4.0
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	9.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	Gas Metal Arc Welding (MIG) - Steel I	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	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.

### **Select a minimum of 4.0 hours from the following:**

ELEC 1000	Basic Electricity/Electronics	9.0
ELEC 1300	Radio Frequency Identification (RFID)	4.5
ELTR 1210	Residential Wiring	9.0
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	National Electrical Code	4.5
INCT 1302	Stationary Engineering I	3.0
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 2981	Internship	variable
WELD 1300	Oxy-Acetylene Welding	3.0

ELTR 2240 is recommended.

### **Suggested Guide for Courses**

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 <sup>~</sup>	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 <sup>~</sup>	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 <sup>~</sup>	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 <sup>~</sup>	4.5
WELD 1500	Shielded Metal Arc Welding (Stick)	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
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## **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. 105) and Industrial Distribution II (p. 105). 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 education	27.0
Certificate I requirements	26.0
Certificate II requirements	25.0
Electives	20.0
<b>Total credit hours required</b>	<b>98.0</b>

## **Industrial Distribution I (ID1CE)**

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

Select one course from the following:

ENGL 1210	Applied Communications	4.5
ENGL 1230	Business Writing <sup>~</sup>	4.5

#### **Quantitative/numeracy skills**

MATH 1220	Business Mathematics <sup>~</sup>	4.5
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#### **Other**

INFO 1001	Information Systems and Literacy <sup>~</sup> ☉	4.5
	OR	
HMRL 1010	Human Relations Skills <sup>~</sup> ☉	4.5

Students should select INFO 1001 if not previously completed. If INFO 1001 previously completed, then select HMRL 1010.

### **Major requirements for Certificate I (26.0 credit hrs.)**

#### **Courses**

BSAD 1000	Introduction to Business <sup>~</sup>	4.5
BSAD 1200	Principles of Selling	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INCT 2981	Internship	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), Construction (CNST), Diesel Technology (DESL/CDL), Electrical Technology (ELTR), Electronics Technology (ELEC), Entrepreneurship (ENTR), Industrial and Commercial Trades (INCT), Information Technology (INFO), Mechanical Design Technology (DRAF), and Welding (WELD).

## **Industrial Distribution II (ID2CE)**

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1240	Oral and Written Reports <sup>~</sup>	4.5
ENGL 1240: Additional prerequisite(s) may be required.		

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Other**

INFO 1001	Information Systems and Literacy <sup>~</sup> ☉	4.5
	OR	
HMRL 1010	Human Relations Skills <sup>~</sup> ☉	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	Principles of Marketing <sup>~</sup>	4.5
BSAD 2100	Principles of Management <sup>~</sup>	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Print Reading	4.0
INCT 2050	Problem-Solving	3.0

### **Elective requirements for Certificate II (11.0 credit hrs.)**

#### **Courses**

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), Electrical Technology (ELTR), Entrepreneurship (ENTR), Industrial and Commercial Trades (INCT), Information Technology (INFO), and Welding (WELD).

## **Industrial and Commercial Trades – Precision Machine Technology (IMPM1)**

**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	61.5
<b>Total credit hours required</b>	<b>96.0</b>

### **General education requirements**

See General education requirements for Industrial and Commercial Trades (p. 102)

### **Major requirements for Industrial and Commercial Trades**

See Major requirements for Industrial and Commercial Trades (p. 102)

### **Option requirements for Industrial and Commercial Trades – Precision Machine Technology (61.5 credit hrs.)**

#### **Courses**

INCT 1050	Mechanical Print Reading	4.0
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 1410	Precision Layout and Finishing	4.0
INCT 1420	Basic Engine Lathe	4.0
INCT 1421	Basic Milling Machine	4.0
INCT 1422	Basic Grinding Machine Setup and Operations	4.0
INCT 2060	Mechanical Power Systems	4.0
INCT 2070	Hydraulics and Pneumatics	4.0
INCT 2420	Intermediate Engine Lathe	4.0
INCT 2421	Intermediate Milling Machines	4.0
INCT 2422	Intermediate Grinding Machines	4.0

### **Select a minimum of 15.0 credit hours from the following:**

DRAF 1100	AutoCAD Fundamentals	9.0
ELTR 1200	Basic Electricity	6.5
INCT 1212	Motor and Machine Controls	9.0
INCT 2410	CNC Milling	4.0
INCT 2440	Advanced Machining Process	4.0
INCT 2981	Internship	variable
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	Gas Metal Arc Welding (MIG) - Steel I	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	3.0
	Electives	6.0

The degree option is an area of interest within a program. Although students may complete 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 teaching students the skills and safe work practices needed for eliminating lead and other hazardous materials. This training prepares students for employment in either the lead abatement or 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	8.5-11.5
<b>Total credit hours required</b>	<b>52.0-55.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

ENGL 1220 is recommended.

#### **Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences options (p. 38)

PSYC 1000 is recommended.

#### **Quantitative/Numeracy Skills**

Mathematics 4.5

See Quantitative/numeracy skills options (p. 40)

MATH 1240 is recommended.

### **Major requirements for Healthy Homes (30.0 credit hrs.)**

#### **Courses**

CNST 1050	Introduction to Carpentry	3.5
CNST 1080	Healthy Homes Foundations	1.0
CNST 1085	International Green Construction Code	3.0
CNST 2100	Construction Safety (30-Hour)	4.5
EMSP 1010	Heartsaver First Aid with CPR and AED	1.0
FIST 2071	Hazwoper for the Industry	3.5
INCT 1020	Lead Safe Practices I	1.0
INCT 1025	Lead Abatement Worker	1.5
INCT 1028	Lead Abatement Supervisor	3.0
SNRG 1120	Weatherization Installer Fundamentals	4.0
SNRG 1121	Weatherization Installer Intermediate	4.0

### **Option requirements for Healthy Homes (8.5-11.5 credit hrs.)**

The Healthy Homes options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option. The degree options are specializations within a program. Although students may complete multiple options within the program, only the major degree is awarded.

#### **Lead Abatement (8.5 credit hrs.)**

Healthy Homes – Lead Abatement (IHHLO) (p. 108)

#### **Residential Energy Management (11.5 credit hrs.)**

Healthy Homes – Residential Energy Management (IHHRO) (p. 108)

## Healthy Homes – Lead Abatement (IHHLO)

**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	8.5
<b>Total credit hours required</b>	<b>52.0</b>

### **General education requirements**

See General education requirements for Healthy Homes (p. 107)

### **Major requirements for Healthy Homes**

See Major requirements for Healthy Homes (p. 107)

### **Option requirements for Lead Abatement (8.5 credit hrs.)**

#### **Courses**

INCT 1304	Small Engine Repair	4.5
INCT 2025	Lead Abatement Inspector	2.5
INCT 2028	Lead Abatement Risk Assessor	1.5

## 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
<b>Total credit hours required</b>	<b>55.0</b>

### **General education requirements**

See General education requirements for Healthy Homes (p. 107)

### **Major requirements for Healthy Homes**

See Major requirements for Healthy Homes (p. 107)

### **Option requirements for Residential Energy Management (11.5 credit hrs.)**

#### **Courses**

SNRG 1124	Weatherization Installer - Mobile Homes	3.0
SNRG 1125	Combustion Appliance Zone (CAZ) Training	1.5
SNRG 1126	Weatherization Crew Chief	2.5
SNRG 1130	Home Energy Auditor - Single Family	4.5

## 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
<b>Total credit hours required</b>	<b>51.5</b>

### General education requirements (13.5 credit hrs.)

#### Communications

ENGL 1220 Technical Writing<sup>Ⓢ</sup> 4.5

#### Quantitative/numeracy skills

MATH 1240 Applied Mathematics 4.5

#### Other

INFO 1001 Information Systems and Literacy<sup>Ⓢ</sup> 4.5

### Major requirements for Industrial and Commercial Trades – Industrial Technology (38.0 credit hrs.)

#### Courses

ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	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	Introduction to Business <sup>Ⓢ</sup>	4.5
BSAD 1200	Principles of Selling	4.5
ENGL 1210	Applied Communications	4.5
	OR	
ENGL 1230	Business Writing <sup>Ⓢ</sup>	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INFO 1001	Information Systems and Literacy <sup>Ⓢ</sup> <sup>Ⓢ</sup>	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	Principles of Marketing <sup>Ⓢ</sup>	4.5
BSAD 2100	Principles of Management <sup>Ⓢ</sup>	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Print Reading	4.0
INCT 2050	Problem-Solving	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	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1301	Home and Building Maintenance Carpentry	6.5
INCT 1303	Basic Plumbing	6.5
INCT 2050	Problem-Solving	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 their plants' electrical systems.

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

**Courses**

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

### **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.)**

**Courses**

ELTR 1200	Basic Electricity	6.5
INCT 1212	Motor and Machine Controls	9.0
INCT 1302	Stationary Engineering I	3.0
INCT 1303	Basic Plumbing	6.5
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 1410	Precision Layout and Finishing	4.0

### **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	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0
INCT 1303	Basic Plumbing	6.5
INCT 2060	Mechanical Power Systems	4.0
INCT 2070	Hydraulics and Pneumatics	4.0

## **Lead Abatement Professional (ILPCC)**

**Award:** Career certificate

**Program location:** South Omaha Campus

This career certificate focuses on the skills and safe work practices needed for cleanup activities within residential dwellings impacted by lead and other hazardous materials. **NOTE:** *This career certificate leads to a general studies degree.*

### **Requirements for Lead Abatement Professional career certificate (23.0 credit hrs.)**

#### **Courses**

CNST 1050	Introduction to Carpentry	3.5
CNST 1080	Healthy Homes Foundations	1.0
EMSP 1010	Heartsaver First Aid with CPR and AED	1.0
FIST 2071	Hazwoper for the Industry	3.5
INCT 1020	Lead Safe Practices I	1.0
INCT 1025	Lead Abatement Worker	1.5
INCT 1028	Lead Abatement Supervisor	3.0
INCT 1304	Small Engine Repair	4.5
INCT 2025	Lead Abatement Inspector	2.5
INCT 2028	Lead Abatement Risk Assessor	1.5

## **Logistics (IMLCC)**

**Award:** Career certificate

**Program location:** South Omaha Campus

The Logistics 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 credit hrs.)**

#### **Courses**

INCT 1000	Industrial Safety and Health	4.5
INCT 1100	Logistics and Warehousing for Applied Technologies	4.5
	OR	
BSAD 2400	Business Logistics	4.5
INCT 1500	Introduction to Distribution	4.5
BSAD 1000	Introduction to Business <sup>~†</sup>	4.5
BSAD 1010	Principles of Marketing <sup>~†</sup>	4.5
BSAD 2100	Principles of Management <sup>~†</sup>	4.5

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	4.5
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 1410	Precision Layout and Finishing	4.0
INCT 1420	Basic Engine Lathe	4.0
INCT 1421	Basic Milling Machine	4.0
INCT 1422	Basic Grinding Machine Setup and Operations	4.0

## 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	Basic Electricity	6.5
INCT 1212	Motor and Machine Controls	9.0
INCT 1302	Stationary Engineering I	3.0
INCT 1303	Basic Plumbing	6.5
INCT 2060	Mechanical Power Systems	4.0
INCT 2070	Hydraulics and Pneumatics	4.0

## 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	Industrial Safety and Health	4.5
INCT 2050	Problem-Solving	3.0
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	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	Healthy Homes Foundations	1.0
DESL 1310	Truck Driver CDL Training I	8.5
DESL 1320	Truck Driver CDL Training II	9.0
FIST 2071	Hazwoper for the Industry	3.5
INCT 1010	Introduction to the Trades II	6.0
INCT 1020	Lead Safe Practices I	1.0
INCT 1304	Small Engine Repair	4.5
EMSP 1010	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
<b>Total credit hours required</b>	<b>99.0</b>

### General education requirements (72.0 credit hrs.)

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/Numeracy Skills**

MATH 1310	Intermediate Algebra	4.5
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#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

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

#### **Courses**

DRAF 1100	AutoCAD Fundamentals	9.0
DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1300	Inventor Fundamentals	9.0
DRAF 1400	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

## Suggested Guide for Courses – 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 Algebra 	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

## Suggested Guide for Courses – 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	AutoCAD Fundamentals	9.0
	English level I	4.5
INFO 1001	Information Systems and Literacy  	4.5

#### Second quarter

DRAF 1200	Design for Precision (Measurement)	9.0
	English level II	4.5
MATH 1310	Intermediate Algebra 	4.5

#### Third quarter

DRAF 1300	Inventor Fundamentals	9.0
	Humanities/social sciences	4.5

### 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  	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.

### Graduation Requirements

General education	13.5
Major requirements	36.0
<b>Total credit hours required</b>	<b>49.5</b>

### General education requirements (13.5 credit hrs.)

#### Communications

English level I	4.5
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See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra 	4.5
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### Major requirements for Mechanical Design Technology (36.0 credit hrs.)

#### Courses

DRAF 1100	AutoCAD Fundamentals	9.0
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Students can take any design class after successful completion of DRAF 1100. Design classes are: 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

#### Select two courses from the following:

DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Process Design	9.0
DRAF 2200	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
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#### **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

#### **Select one course from the following:**

DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Process Design	9.0
DRAF 2200	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
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#### **Select two courses from the following:**

DRAF 1300	Inventor Fundamentals	9.0
DRAF 2100	SolidWorks Fundamentals	9.0
DRAF 2300	Creo (Pro/E) Fundamentals	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
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#### **Select two courses from the following:**

DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Process Design	9.0
DRAF 2200	Machine Design Principles	9.0
DRAF 2400	Tool Design Processes	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
<b>Total credit hours required</b>	<b>100.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

#### Humanities/Social Sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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	Plumbing IA	7.0
PLAP 1120	Plumbing IB	7.0
PLAP 1121	Plumbing IC	3.0
PLAP 1210	Plumbing IIA	7.0
PLAP 1220	Plumbing IIB	7.0
PLAP 1221	Plumbing IIC	3.0
PLAP 2310	Plumbing IIIA	7.0
PLAP 2320	Plumbing IIIB	7.0
PLAP 2330	Print Reading for Plumbers	3.5
PLAP 2410	Plumbing IVA	7.0
PLAP 2420	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	Plumbing IA	7.0
PLAP 1120	Plumbing IB	7.0
SNRG 1260	Solar Water Systems Design	4.5
SNRG 1270	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	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.

### 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

## 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 would 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	24.0–35.5
<b>Total credit hours required</b>	<b>96.5–108.0</b>

### General education requirements (31.5 credit hrs.)

#### Communications

ENGL 1220	Technical Writing~ϕ	4.5
ENGL 1240	Oral and Written Reports~ϕ	4.5

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

MATH 1240	Applied Mathematics	4.5
MATH 1310	Intermediate Algebra~ϕ	4.5

See Quantitative/numeracy skills options (p. 40)

MATH 1410 is required for the NEI option.

#### Other

HMRL 1010	Human Relations Skills~ϕ☉	4.5
INFO 1001	Information Systems and Literacy~ϕ☉	4.5

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

#### Courses

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

### Option requirements for Process Operations Technology (24.0-35.5 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. 118)

#### Nuclear Power Plant Non-Licensed Operator (35.5 credit hrs.)

Process Operations Technology – Nuclear Power Plant Non-Licensed Operator (PRPNO) (p. 118)

#### Power Plant (24.0 credit hrs.)

Process Operations Technology – Power Plant (PRPPO) (p. 119)

## **Process Operations Technology – Bio-Processing (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
<b>Total credit hours required</b>	<b>97.0</b>

### **General education requirements**

See General education requirements for Process Operations Technology (p. 117)

### **Major requirements for Process Operations Technology**

See Major requirements for Process Operations Technology (p. 117)

### **Option requirements for Process Operations Technology – Bio-Processing (24.5 credit hrs.)**

#### **Courses**

BIOS 1500	Introduction to Bioprocessing	4.5
CHEM 1210	General Chemistry: Part I	2.0
CHEM 1211	General Chemistry: Part II	4.0
	OR	
CHEM 1212	General Chemistry I: Accelerated	6.0
CHEM 1510	Chemistry for Bioindustry I	3.0
CHEM 1520	Chemistry for Bioindustry II	3.0
PROT 2200	Dynamics of Process Control	4.5
PROT 2210	Ethanol Process Fundamentals	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.

## **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 nuclear-fueled power generating plants.

### **Graduation Requirements**

General education	31.5
Major requirements	41.0
Option requirements	35.5
<b>Total credit hours required</b>	<b>108.0</b>

### **General education requirements**

See General education requirements for Process Operations Technology (p. 117)

### **Major requirements for Process Operations Technology**

See Major requirements for Process Operations Technology (p. 117)

### **Option requirements for Process Operations Technology – Nuclear Power Plant Non-Licensed Operator (35.5 credit hrs.)**

#### **Courses**

CHEM 1010	College Chemistry	6.0
MATH 1410	Statistics <sup>2</sup>	4.5
PROT 1320	Fuel Handling	3.0
PROT 2310	Steam Plant Operation I	4.5
PROT 2320	Steam Plant Operation II	4.5
PROT 2330	Steam Plant Operation III	6.0
PROT 2410	Nuclear Plant Operation I	4.5
PROT 2420	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
<b>Total credit hours required</b>	<b>96.5</b>

### General education requirements

See General education requirements for Process Operations Technology (p. 117)

### Major requirements for Process Operations Technology

See Major requirements for Process Operations Technology (p. 117)

### Option requirements for Process Operations Technology – Power Plant (24.0 credit hrs.)

#### Courses

CHEM 1010	College Chemistry	6.0
PROT 1320	Fuel Handling	3.0
PROT 2310	Steam Plant Operation I	4.5
PROT 2320	Steam Plant Operation II	4.5
PROT 2330	Steam Plant Operation III	6.0

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

CNST 1110	Construction Safety (10-Hour)	1.0
INCT 1302	Stationary Engineering I	3.0
HVAC 1020	Refrigeration Shop Practices	3.0
PROT 1250	Basic Electricity for Power and Process	6.0
SNRG 1213	Solar Thermal Seminar	1.0
SNRG 1260	Solar Water Systems Design	4.5
	OR	
SNRG 1265	Solar Hydronic Systems	4.5
SNRG 1270	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	Solar Water Install 3 - Piping	1.5

## Stationary Engineer (PRES D)

**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

INCT 1302	Stationary Engineering I	3.0
INCT 2302	Stationary Engineering II	4.0
PROT 1250	Basic Electricity for Power and Process	6.0
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	Employability Skills for Process, Power, and Energy-Related Fields	4.5

## **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. 409)

### **Sustainable Energy Technology Options**

#### **Home Energy Professional [Weatherization] (26.0 credit hrs.)**

Home Energy Professional [Weatherization] (CHECC) (p. 90)

#### **Solar Air Systems (24.5 credit hrs.)**

Solar Air Systems (SASSD) (p. 91)

#### **Solar Electric Systems (24.0 credit hrs.)**

Solar Electric Systems (SESSD) (p. 98)

#### **Solar Heating Systems (25.0 credit hrs.)**

Solar Heating Systems (SHSSD) (p. 101)

#### **Solar Hydronic Systems (24.0 credit hrs.)**

Solar Hydronic Systems (SSHSD) (p. 119)

#### **Solar Technology (24.0 credit hrs.)**

Solar Technology (STSSD) (p. 91)

#### **Solar Water Systems (24.0 credit hrs.)**

Solar Water Systems (SWSSD) (p. 116)

## 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 digger-derrick 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](http://www.mccneb.edu/util).

### Graduation Requirements

General education	27.0
Major requirements	61.0
Electives	8.0–12.5
<b>Total credit hours required</b>	<b>96.0–100.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and 1240 are recommended.

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Utility Line Technician (69.0-73.5 credit hrs.)

#### Courses

UTIL 1010	Pole Climbing	4.5
UTIL 1020	Electricity I	5.5
UTIL 1030	Ropes, Rigging, and Safety	4.5
UTIL 1110	Line Construction I	5.5
UTIL 1240	Underground Distribution Systems I	5.5
UTIL 2020	Transformer Theory	5.5
UTIL 2030	Secondary Electrical Systems	4.5
UTIL 2110	Line Construction II	5.5
UTIL 2210	Overhead Distribution Systems I	5.5
UTIL 2220	Overhead Distribution Systems II	5.5
UTIL 2230	Distribution Systems Maintenance	4.5
UTIL 2240	Underground Distribution Systems II	4.5

#### Select 8.0 credit hours of electives from the following:

ELTR 1200	Basic Electricity	6.5
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.

## Suggested Guide for Courses

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	Pole Climbing	4.5
UTIL 1020	Electricity I	5.5
UTIL 1030	Ropes, Rigging, and Safety	4.5
UTIL 1110	Line Construction I	5.5

##### Second quarter (Winter)

UTIL 1240	Underground Distribution Systems I	5.5
UTIL 2020	Transformer Theory	5.5
UTIL 2110	Line Construction II	5.5
UTIL 2210	Overhead Distribution Systems I	5.5

##### Third quarter (Spring)

UTIL 2030	Secondary Electrical Systems	4.5
UTIL 2220	Overhead Distribution Systems II	5.5
UTIL 2230	Distribution Systems Maintenance	4.5
UTIL 2240	Underground Distribution Systems II	4.5

##### Fourth quarter (Summer)

	Elective	8.0
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### Weekend Track

#### First Year

##### First quarter (Spring)

UTIL 1010	Pole Climbing	4.5
UTIL 1030	Ropes, Rigging, and Safety	4.5

##### Second quarter (Summer)

UTIL 1020	Electricity I	5.5
UTIL 1110	Line Construction I	5.5

##### Third quarter (Fall)

UTIL 1240	Underground Distribution Systems I	5.5
UTIL 2210	Overhead Distribution Systems I	5.5

##### Fourth quarter (Winter)

UTIL 2020	Transformer Theory	5.5
UTIL 2110	Line Construction II	5.5

#### Second Year

##### Fifth quarter (Spring)

UTIL 2030	Secondary Electrical Systems	4.5
UTIL 2220	Overhead Distribution Systems II	5.5

##### Sixth quarter (Summer)

UTIL 2230	Distribution Systems Maintenance	4.5
UTIL 2240	Underground Distribution Systems II	4.5

##### Internship

UTIL 2981	Internship	8.0
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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	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	4.5
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
<b>Total credit hours required</b>	<b>108.0</b>

## General education requirements (27.0 credit hrs.)

### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are recommended.

### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

PSYC 1000 is recommended.

### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1240 is recommended.

### Other

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	4.5

## 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	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 1300	Oxy-Acetylene Welding	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 1410	Gas Tungsten Arc Welding (TIG) - Stainless I	3.0
WELD 1420	Gas Tungsten Arc Welding (TIG) - Aluminum I	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0
WELD 1510	Shielded Metal Arc Welding (Stick)	3.0
WELD 1700	Introductory Fabrication	3.0
WELD 2200	Gas Metal Arc Welding (MIG)	3.0
WELD 2220	Gas Metal Arc Welding (MIG)	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
WELD 2400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 2500	Shielded Metal Arc Welding (Stick) - Horizontal	3.0
WELD 2510	SMAW (Stick) - Overhead	3.0
WELD 2710	Industrial Fabrication Project	3.0
WELD 2810	Welder Pre-Qualification	3.0
WELD 2820	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 <sup>Ⓢ</sup>	4.5
BSAD 2610	Labor and Management Relations	4.5
ELEC 1000	Basic Electricity/Electronics	9.0
ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 2070	Hydraulics and Pneumatics	4.0
WELD 2241	Flux-Cored Arc Welding II	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)	3.0
WELD 2540	Shielded Metal Arc Welding (Stick) - Pipe III	3.0
WELD 2600	Gas Shielded Arc Welding - Pipe	3.0
WELD 2900	Special Topics in Welding	Variable

Attendance at the first class session is mandatory for all welding lab sections.

**Suggested Guide for Courses – 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 <sup>Ⓢ</sup>	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)	3.0

**Second quarter**

	Mathematics	4.5
WELD 2220	Gas Metal Arc Welding (MIG)	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 <sup>Ⓢ</sup>	4.5
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0
WELD 1510	Shielded Metal Arc Welding (Stick)	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)	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)	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

## Suggested Guide for Courses – 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 <sup>CE</sup>	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)	3.0
WELD 2220	Gas Metal Arc Welding (MIG)	3.0
WELD 2230	Gas Metal Arc Welding (MIG) - Aluminum	3.0

#### Third quarter

HMRL 1010	Human Relations Skills <sup>CE</sup>	4.5
WELD 1500	Shielded Metal Arc Welding (Stick)	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)	3.0
WELD 2500	Shielded Metal Arc Welding (Stick) - Horizontal	3.0
WELD 2510	SMAW (Stick) - Overhead	3.0

### Second Year

#### Fifth quarter

	English level II	4.5
WELD 1300	Oxy-Acetylene Welding	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	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 I	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	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 oxy-acetylene, 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
<b>Total credit hours required</b>	<b>55.5</b>

### General education requirements (13.5 credit hrs.)

#### Communications

English level I 4.5

See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

Mathematics 4.5

See Quantitative/numeracy skills course options (p. 40)

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

#### Courses

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 1300	Oxy-Acetylene Welding	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0
WELD 2200	Gas Metal Arc Welding (MIG)	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. 126)

#### Pipe (21.0 credit hrs.)

Welding Technology – Pipe (WELPO) (p. 126)

#### Structural (21.0 credit hrs.)

Welding Technology – Structural (WELSO) (p. 127)

## **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
<b>Total credit hours required</b>	<b>55.5</b>

### **General education requirements**

See General education requirements for Welding Technology (p. 125)

### **Major requirements for Welding Technology**

See Major requirements for Welding Technology (p. 125)

### **Option requirements for Welding Technology – Manufacturing (15.0 credit hrs.)**

#### **Courses**

WELD 1410	Gas Tungsten Arc Welding (TIG) - Stainless I	3.0
WELD 1420	Gas Tungsten Arc Welding (TIG) - Aluminum I	3.0
WELD 2220	Gas Metal Arc Welding (MIG)	3.0
WELD 2230	Gas Metal Arc Welding (MIG) - Aluminum	3.0
WELD 2240	Flux-Cored Arc Welding I	3.0

## **Electives for Welding Technology – Manufacturing (6.0 credit hrs.)**

#### **Courses**

WELD 1300	Oxy-Acetylene Welding	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2242	Submerged Arc and Metal-Cored Welding	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	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 2600	Gas Shielded Arc Welding - Pipe	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.

## **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	13.5
Major requirements	21.0
Option and elective requirements	21.0
<b>Total credit hours required</b>	<b>55.5</b>

### **General education requirements**

See General education requirements for Welding Technology (p. 125)

### **Major requirements for Welding Technology**

See Major requirements for Welding Technology (p. 125)

### Option requirements for Welding Technology – Pipe (15.0 credit hrs.)

#### Courses

WELD 1510	Shielded Metal Arc Welding (Stick)	3.0
WELD 2500	Shielded Metal Arc Welding (Stick) - Horizontal	3.0
WELD 2510	SMAW (Stick) - Overhead	3.0
WELD 2520	Shielded Metal Arc Welding (Stick) - Pipe I	3.0
WELD 2530	Shielded Metal Arc Welding (Stick)	3.0

### Electives for Welding Technology – Pipe (6.0 credit hrs.)

#### Courses

WELD 1300	Oxy-Acetylene Welding	3.0
WELD 1410	Gas Tungsten Arc Welding (TIG) - Stainless I	3.0
WELD 1420	Gas Tungsten Arc Welding (TIG) - Aluminum I	3.0
WELD 2220	Gas Metal Arc Welding (MIG)	3.0
WELD 2230	Gas Metal Arc Welding (MIG) - Aluminum	3.0
WELD 2240	Flux-Cored Arc Welding I	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	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 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.

### 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
<b>Total credit hours required</b>	<b>55.5</b>

### General education requirements

See General education requirements for Welding Technology (p. 125)

### Major requirements for Welding Technology

See Major requirements for Welding Technology (p. 125)

### Option requirements for Welding Technology – Structural (15.0 credit hrs.)

#### Courses

WELD 1510	Shielded Metal Arc Welding (Stick)	3.0
WELD 2240	Flux-Cored Arc Welding I	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 2500	Shielded Metal Arc Welding (Stick) - Horizontal	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)	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 wire-based 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 flux-cored arc welding equipment; produce sound fillet and groove welds in steel, stainless steel, and aluminum in all positions with gas metal arc welding using short-circuit, spray, and pulsed spray modes of metal transfer; and produce sound fillet and groove welds in steel using flux-cored arc welding.

**Requirements for Gas Metal Arc Welding career certificate (27.0 credit hrs.)****Courses**

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)	3.0
WELD 2220	Gas Metal Arc Welding (MIG)	3.0
WELD 2230	Gas Metal Arc Welding (MIG) - Aluminum	3.0
WELD 2240	Flux-Cored Arc Welding I	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2242	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 oxy-fuel, 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	Print Reading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1300	Oxy-Acetylene Welding	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 1410	Gas Tungsten Arc Welding (TIG) - Stainless I	3.0
WELD 1420	Gas Tungsten Arc Welding (TIG) - Aluminum I	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 2410	Gas Tungsten Arc Welding (TIG) - Stainless II	3.0
WELD 2420	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	Print Reading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1300	Oxy-Acetylene Welding	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0
WELD 1510	Shielded Metal Arc Welding (Stick)	3.0
WELD 2500	Shielded Metal Arc Welding (Stick) - Horizontal	3.0
WELD 2510	SMAW (Stick) - Overhead	3.0
WELD 2520	Shielded Metal Arc Welding (Stick) - Pipe I	3.0
WELD 2530	Shielded Metal Arc Welding (Stick)	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	Print Reading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1300	Oxy-Acetylene Welding	3.0
WELD 1400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 1500	Shielded Metal Arc Welding (Stick)	3.0
WELD 1510	Shielded Metal Arc Welding (Stick)	3.0
WELD 2400	Gas Tungsten Arc Welding (TIG)	3.0
WELD 2510	SMAW (Stick) - Overhead	3.0
WELD 2520	Shielded Metal Arc Welding (Stick) - Pipe I	3.0
WELD 2530	Shielded Metal Arc Welding (Stick)	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 which 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. About 24 percent of these clerks worked part time in 2006.

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.

For more information, visit  
<http://www.bls.gov/oco/ocos144.htm#nature>.

### **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
<b>Total credit hours required</b>	<b>99.5–101.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### 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	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 I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 2030	Introduction to Ethics	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2060	Multicultural Issues	4.5
THEA 1000	Introduction to the Theatre	4.5

PHIL 2030 is recommended.

#### Quantitative/numeracy skills

MATH 1220	Business Mathematics	4.5
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Take MATH 1220 or higher level MATH course.

#### Other

HMRL 1010	Human Relations Skills	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 I	4.0
ACCT 1110	Accounting II	4.0
ACCT 1120	Accounting III	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	Microcomputer Business Applications	4.0
ACCT 2330	Managerial Cost Accounting	4.0
ACCT 2940	Business Plan Capstone	1.5
BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 1100	Business Law I	4.5
BSAD 1110	Business Law II	4.5
BSAD 2100	Principles of Management	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
FINA 2230	Business Finance	4.5

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	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	4.5
INFO 1212	Spreadsheets	4.5

## Suggested Course 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 I	4.0
BSAD 1000	Introduction to Business	4.5
ENGL 1010	English Composition I	4.5
	OR	
ENGL 1230	Business Writing	4.5
INFO 1001	Information Systems and Literacy	4.5
MATH 1220	Business Mathematics	4.5

#### Second quarter

ACCT 1110	Accounting II	4.0
ECON 1000	Macroeconomics	4.5
ENGL 1020	English Composition II	4.5
	OR	
ENGL 1240	Oral and Written Reports	4.5
HMRL 1010	Human Relations Skills	4.5

#### Third quarter

ACCT 1120	Accounting III	4.0
BSAD 1010	Principles of Marketing	4.5
ECON 1100	Microeconomics	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 I	4.5
BSAD 2100	Principles of Management	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 II	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	4.5

ACCT 2140 (Spring only)

## **Bookkeeping (BKPC)**

**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 a bookkeeper 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
<b>Total credit hours required</b>	<b>53.5–54.5</b>

### **General education requirements (22.5 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. 38)

#### **Social sciences**

ECON 1000 Macroeconomics~ 4.5

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics~ 4.5

Take MATH 1220 or higher level MATH course

See Quantitative/numeracy skills options (p. 40)

#### **Other**

HMRL 1010 Human Relations Skills~ 4.5

INFO 1001 Information Systems and Literacy~ 4.5

### **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 Bookkeeping~ 3.0

ACCT 1100 Accounting I~ 4.0

##### **Group 2:**

ACCT 1100 Accounting I~ 4.0

ACCT 1110 Accounting II~ 4.0

#### **Also required:**

ACCT 1060 Payroll Accounting~ 3.0

ACCT 1210 Accounting with QuickBooks 3.0

BSAD 1000 Introduction to Business~ 4.5

FINA 1200 Wealth-Building Fundamentals and Personal Finance~ 4.5

INFO 1012 Electronic Filing and Calculating~ 4.5

#### **Select one course from the following:**

BSAD 1600 Principles of Supervision~ 4.5

BSAD 2100 Principles of Management~ 4.5

BSAD 2600 Human Resources Management~ 4.5

INFO 1212 Spreadsheets~ 4.5

The Business program at MCC 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 mid-level 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 here:  
<http://www.bls.gov/oco/ocos002.htm>

### 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  
 Insurance and Risk Management  
 International Business  
 Marketing  
 Not-for-Profit Management (leads to General Studies degree)  
 Para-Financial Planner

#### Career Certificate:

Business Management Generalist  
 Credit Management  
 Customer Service Management (leads to General Studies degree)  
 Entrepreneurship  
 Financial Counseling  
 Financial Planning Specialist  
 Financial Services Management  
 Financial Services Specialist  
 Insurance and Risk Management  
 Insurance Entrepreneurship  
 International Business  
 Marketing Administration  
 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
<b>Total credit hours required</b>	<b>101.5–109.0</b>

### **General education requirements (26.5-27.0 credit hrs.)**

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### **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	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 I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 2030	Introduction to Ethics	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2060	Multicultural Issues	4.5
THEA 1000	Introduction to the Theatre	4.5

### **Quantitative/Numeracy Skills**

MATH 1220	Business Mathematics	4.5
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Take MATH 1220 or higher level MATH course

See Quantitative/numeracy skills course options (p. 40)

### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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 I	4.0
ACCT 1110	Accounting II	4.0
ACCT 1120	Accounting III	4.0
BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 1100	Business Law I	4.5
BSAD 1110	Business Law II	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2940	Business Plan Capstone	1.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
FINA 2230	Business Finance	4.5

## Requirements for Business Management course track offerings (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. 142) is also available.

### **Credit Management (27.0 credit hrs.)**

Business Management - Credit Management (BMCMO) (p. 138)

### **Entrepreneurship (27.0 credit hrs.)**

Business Management - Entrepreneurship (BMENO) (p. 138)

### **Financial Planning and Investment (31.5 credit hrs.)**

Business Management - Financial Planning and Investment (BMFISO) (p. 138)

### **Financial Services Management (26.5-32.5 credit hrs.)**

Business Management - Financial Services Management (BMFMO) (p. 139)

### **Generalist (28.0 credit hrs.)**

Business Management - Generalist (BMGEO) (p. 139)

### **Insurance and Risk Management (31.5 credit hrs.)**

Business Management - Insurance and Risk Management (BMIMO) (p. 139)

### **International Business (25.5 credit hrs.)**

Business Management - International Business (BMIBO) (p. 140)

### **Merchandising Management (25.5-27.0 credit hrs.)**

Business Management - Merchandising Management (BMMMMO) (p. 140)

### **Operations and Supply Chain Management (27.0 credit hrs.)**

Business Management - Operations and Supply Chain Management (BMOSO) (p. 140)

### **Organizational Development (25.5-27.0 credit hrs.)**

Business Management - Organizational Development (BMODO) (p. 141)

### **Real Estate (27.0 credit hrs.)**

Business Management - Real Estate (BMRE1) (p. 141)

## Suggested Guide for Courses

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	Introduction to Business	4.5
	English level I	4.5
MATH 1220	Business Mathematics	4.5

#### **Second quarter**

ACCT 1110	Accounting II	4.0
ECON 1000	Macroeconomics	4.5
ENGL 1020	English Composition II	4.5
	OR	
ENGL 1240	Oral and Written Reports	4.5
HMRL 1010	Human Relations Skills	4.5

#### **Third quarter**

ACCT 1120	Accounting III	4.0
ECON 1100	Microeconomics	4.5
	Gen. Ed.	4.5
	Option track	3.0-7.5

### **Second Year**

#### **Fifth quarter**

INFO 1001	Information Systems and Literacy	4.5
	OR	
ACCT 2230	Microcomputer Business Applications	4.0
BSAD 1100	Business Law I	4.5
	Option track	3.0-4.5
	Option track	3.0-4.5

#### **Sixth quarter**

BSAD 1110	Business Law II	4.5
BSAD 2100	Principles of Management	4.5
	Option track	3.0-7.5
	Option track	3.0-7.5

#### **Seventh quarter**

BSAD 1010	Principles of Marketing	4.5
BSAD 2940	Business Plan Capstone	1.5
FINA 1200	Wealth-Building Fundamentals and Personal Finance	4.5
FINA 2230	Business Finance	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 Course Track Offerings

### 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. 136)

#### Major requirements for Business Management

See Major requirements for Business Management (p. 136)

#### Option requirements for Business Management - Credit Management

##### Courses

	Business electives	4.5
FINA 2209	Risk Management and Insurance <sup>~</sup>	4.5
FINA 2210	Financial Planning Principles <sup>~</sup>	4.5
FINA 2240	Financial Statement Analysis <sup>~</sup>	4.5
FINA 2410	Consumer Credit <sup>~</sup>	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. 136)

#### Major requirements for Business Management

See Major requirements for Business Management (p. 136)

#### Option requirements for Business Management - Entrepreneurship

##### Courses

ENTR 1050	Introduction to Entrepreneurship <sup>~</sup>	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5
ENTR 2050	Marketing for the Entrepreneur <sup>~</sup>	4.5
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	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. 136)

#### Major requirements for Business Management

See Major requirements for Business Management (p. 136)

#### Option requirements for Business Management - Financial Planning and Investment

##### Courses

FINA 2200	Investments <sup>~</sup>	4.5
FINA 2209	Risk Management and Insurance <sup>~</sup>	4.5
FINA 2210	Financial Planning Principles <sup>~</sup>	4.5
FINA 2310	Income Tax Planning <sup>~</sup>	4.5
FINA 2320	Retirement Planning and Employee Benefits <sup>~</sup>	4.5
FINA 2330	Estate Planning <sup>~</sup>	4.5
FINA 2940	Financial Plan Development and Case Analysis <sup>~</sup>	4.5

## **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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - Financial Services Management**

#### **Courses**

FINA 1311	Introduction to Financial Services Industry~☺	4.5
FINA 1320	Financial Calculator Applications~☺	1.0
FINA 2209	Risk Management and Insurance~☺	4.5
FINA 2210	Financial Planning Principles~☺	4.5
	OR BOTH	
FINA 2206	Fundamentals of Financial Planning I AND	4.5
FINA 2207	Fundamentals of Financial Planning II	4.5
<b>Select three courses from of the following:</b>		
FINA 1200	Wealth-Building Fundamentals and Personal Finance~☺	4.5
FINA 2100	Introduction to Investments~☺	4.5
FINA 2220	Asset and Liability Management for Financial Institutions	4.5
FINA 2240	Financial Statement Analysis~☺	4.5
FINA 2400	Financial Counseling~☺	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~☺	4.5
	OR	
SOCI 2160	Marital and Family Relationships~☺	4.5

## **Business Management - Generalist (BMGEO)**

Prepares students with a general business background.

### **General education requirements**

See General education requirements for Business Management (p. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - Generalist**

#### **Courses**

Business electives 28.0

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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **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~☺☹	4.5
FINA 2209	Risk Management and Insurance~☺	4.5
INSU 1000	Principles of Health and Life Insurance~☺	4.5
INSU 1100	Principles of Property and Casualty Insurance~☺	4.5
INSU 2421	Insurance Law	4.5

Business electives should be selected from ACCT, BSAD, ECON, FINA, ENTR, INSU, 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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - International Business**

#### **Courses**

BSAD 2400	Business Logistics OR	4.5
BSAD 2710	Import and Export Operations	4.5
BSAD 2700	Introduction to International Business	4.5
BSAD 2720	International Marketing Management	4.5
ECON 2720	International Economics	4.5

BSAD 2710 (Winter only)

ECON 2720: Additional prerequisite(s) may be required.

#### **One of the following:**

additional prerequisite(s) may be required.

FREN 1020	Beginning French II	7.5
GERM 1020	Elementary German II	7.5
JAPN 1020	Beginning Japanese II	7.5
SPAN 1120	Elementary Spanish II	7.5

## **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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - Operations and Supply Chain Management**

#### **Courses**

BSAD 1300	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2300	Quality Management: Statistical Process Control	4.5
BSAD 2400	Business Logistics OR	4.5
BSAD 2710	Import and Export Operations	4.5
BSAD 2410	Purchasing and Materials Management	4.5
BSAD 2420	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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - Organizational Development**

#### **Courses**

BSAD 1300	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision~☪	4.5
BSAD 2600	Human Resources Management~☪	4.5
	Business electives	7.5-9.0
HMRL 1050	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. 136)

### **Major requirements for Business Management**

See Major requirements for Business Management (p. 136)

### **Option requirements for Business Management - Real Estate**

#### **Courses**

BSAD 1200	Principles of Selling	4.5
FINA 1200	Wealth-Building Fundamentals and Personal Finance~☪	4.5
FINA 2410	Consumer Credit~☪	4.5
REES 1000	Real Estate Principles~☪	4.5
REES 1100	Real Estate Law~☪	4.5
REES 2120	Real Estate Sales and Brokerage	4.5

REES 1000, REES 1100, and REES 2120: MCC has been approved by the Nebraska Real Estate Commission as a pre-licensure salesperson and broker education provider. The above marked 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™).

## **Business Management certificates of achievement and career certificates**

### **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
<b>Total credit hours required</b>	<b>49.0–49.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Other**

HMRL 1010 Human Relations Skills~☪☉ 4.5

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics~☪ 4.5

Take MATH 1220 or higher level MATH course

See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Business Management – Entrepreneurship (35.5-36.0 credit hrs.)**

#### **Courses**

BSAD 2100	Principles of Management~☪	4.5
ENTR 1050	Introduction to Entrepreneurship~☪☉	4.5
ENTR 2040	Entrepreneurship Feasibility Study~☪	4.5
ENTR 2090	Entrepreneurship Business Plan~☪	4.5

#### **Select 17.5–18.0 credit hours from the following:**

ACCT 1100	Accounting I~☪☉	4.0
ENTR 2050	Marketing for the Entrepreneur~☪	4.5
ENTR 2060	Legal Issues for the Entrepreneur~☪	4.5
ENTR 2070	Financial Topics for the Entrepreneur~☪	4.5
INFO 1010	Customer Service Skills~☪	4.5

## **Business Management - 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**

General education	13.5
Major requirements	36.0
<b>Total credit hours required</b>	<b>49.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics<sup>☞</sup> 4.5

Take MATH 1220 or higher level MATH course; MATH 1310 is recommended.

See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Financial Planning (36.0 credit hrs.)**

#### **Courses**

FINA 2200	Investments <sup>☞</sup>	4.5
FINA 2209	Risk Management and Insurance <sup>☞</sup>	4.5
FINA 2210	Financial Planning Principles <sup>☞</sup>	4.5
FINA 2230	Business Finance <sup>☞</sup>	4.5
FINA 2310	Income Tax Planning <sup>☞</sup>	4.5
FINA 2320	Retirement Planning and Employee Benefits <sup>☞</sup>	4.5
FINA 2330	Estate Planning <sup>☞</sup>	4.5
FINA 2940	Financial Plan Development and Case Analysis <sup>☞</sup>	4.5

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](http://www.CFP-Board.org)).

## **Business Management – Insurance and Risk Management (BIRCE)**

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, Sarpy Center

This certificate of achievement provides students with a strong background in insurance and risk management specific to organizations, individuals, and businesses. Students gain an understanding of how to analyze financial risk and preserve assets via various lines of insurance (life, health, disability, long-term care, homeowners, auto, and liability).

### **Graduation Requirements**

General education	13.5
Major requirements	36.0
<b>Total credit hours required</b>	<b>49.5</b>

### **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. 38)

#### **Other**

HMRL 1010 Human Relations Skills<sup>☞</sup> 4.5

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics<sup>☞</sup> 4.5

Take MATH 1220 or higher level MATH course; MATH 1310 is recommended.

See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Business Management – Insurance and Risk Management (36.0 credit hrs.)**

#### **Courses**

BSAD 1100	Business Law I <sup>☞</sup>	4.5
BSAD 1200	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship <sup>☞</sup>	4.5
FINA 2209	Risk Management and Insurance <sup>☞</sup>	4.5
FINA 2210	Financial Planning Principles <sup>☞</sup>	4.5
INSU 1000	Principles of Health and Life Insurance <sup>☞</sup>	4.5
INSU 1100	Principles of Property and Casualty Insurance <sup>☞</sup>	4.5
INSU 2421	Insurance Law	4.5

## **Business Management – International Business (BMICE)**

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

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
<b>Total credit hours required</b>	<b>48.0</b>

### **General education requirements (18.0 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
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See Communications course options (p. 38)

#### **Social sciences**

Social sciences	4.5
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See Social Sciences course options (p. 38)

Degree-seeking students should pick from list of social science courses for BMAAS (p. 136)

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics	4.5
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Take MATH 1220 or higher level MATH course.

See Quantitative/numeracy skills course options (p. 40)

#### **Other**

HMRL 1010 Human Relations Skills	4.5
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### **Major requirements for Business Management – International Business (30.0 credit hrs.)**

#### **Courses**

ECON 1000 Macroeconomics	4.5
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#### **Select three courses from the following:**

BSAD 2700 Introduction to International Business	4.5
BSAD 2710 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 Beginning French I	7.5
GERM 1010 Elementary German I	7.5
JAPN 1010 Beginning Japanese I	7.5
SPAN 1110 Elementary Spanish I	7.5

**Select 4.5 credit hours from ACCT, BSAD, ENTR, or FINA courses**

Degree-seeking students should pick from BMAAS major requirements list (p. 136)

## **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	13.5
Major requirements	35.5
<b>Total credit hours required</b>	<b>49.0</b>

### **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
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See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Business Management – Marketing (35.5 credit hrs.)**

#### **Courses**

ACCT 1100 Accounting I	4.0
BSAD 1010 Principles of Marketing	4.5
BSAD 1200 Principles of Selling	4.5
BSAD 1201 Advertising and Sales Promotion	4.5
BSAD 1210 Retailing	4.5
BSAD 2720 International Marketing Management	4.5
HMRL 1010 Human Relations Skills	4.5

#### **Select one course from the following:**

BSAD 1100 Business Law I	4.5
BSAD 1202 Direct Marketing Methods	4.5
BSAD 2100 Principles of Management	4.5
ENTR 2050 Marketing for the Entrepreneur	4.5
FINA 1200 Wealth-Building Fundamentals and Personal Finance	4.5
ENTR/FINA Any course	4.5

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	31.0
Option requirements	7.5
<b>Total credit hours required</b>	<b>52.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1220	Technical Writing <sup>~†</sup>	4.5
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#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Business Management – Not-for-Profit Management (31.0 credit hrs.)**

#### **Courses**

ACCT 1050	Bookkeeping <sup>~†</sup>	3.0
BSAD 1010	Principles of Marketing <sup>~†</sup>	4.5
BSAD 1100	Business Law I <sup>~†</sup>	4.5
	OR	
ECON 1100	Microeconomics <sup>~†</sup>	4.5
BSAD 1250	Introduction to Not-for-Profit Management	4.5
BSAD 2100	Principles of Management <sup>~†</sup>	4.5
ENGL 1240	Oral and Written Reports <sup>~†</sup>	4.5
ENGL 2210	Grant Writing	4.5

### **Option requirements for Business Management – Not-for-Profit Management (7.5 credit hrs.)**

#### **Courses**

ARTS 2220	Art Gallery Management	4.5
	OR	
HMSV 1010	Introduction to Human Services <sup>~†</sup>	4.0
	OR	
THEA 2200	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
<b>Total credit hours required</b>	<b>50.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I	4.5
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See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

MATH 1220	Business Mathematics <sup>~†</sup>	4.5
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### **Major requirements for Business Management – Para-Financial Planner (37.0 credit hrs.)**

#### **Courses**

ECON 1000	Macroeconomics <sup>~†</sup>	4.5
FINA 1200	Wealth-Building Fundamentals and Personal Finance <sup>~†</sup>	4.5
FINA 1311	Introduction to Financial Services Industry <sup>~†</sup>	4.5
FINA 1320	Financial Calculator Applications <sup>~†</sup>	1.0
FINA 2100	Introduction to Investments <sup>~†</sup>	4.5
FINA 2206	Fundamentals of Financial Planning I	4.5
FINA 2207	Fundamentals of Financial Planning II	4.5
FINA 2981	Internship in Finance	variable
INFO 1001	Information Systems and Literacy <sup>~†</sup> 	4.5

## **Business Management Generalist (BMGSD)**

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate provides business practitioners with a flexible background for dealing with a range of challenging commercial issues. Students may select electives according to career interest application opportunities.

### **Requirements for Business Management Generalist career certificate (25.0 credit hrs.)**

#### **Courses**

Select 25.0 credit hours from ACCT, BSAD, ENTR, FINA, INSU, or REES

## **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	Principles of Supervision <sup>~</sup> 📄	4.5
BSAD 2100	Principles of Management <sup>~</sup> 📄	4.5
HMRL 1010	Human Relations Skills <sup>~</sup> 📄📄	4.5
INFO 1010	Customer Service Skills <sup>~</sup> 📄	4.5
SPCH 1110	Public Speaking <sup>~</sup> 📄📄	4.5
SPCH 1300	Interpersonal Communication	4.5

## **Credit Management (BCMDS)**

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate provides a targeted background for successful employment and career advancement in this business specialty.

### **Requirements for Credit Management career certificate (34.5 credit hrs.)**

#### **Courses**

ACCT 1100	Accounting I <sup>~</sup> 📄📄	4.0
ACCT 1110	Accounting II <sup>~</sup> 📄📄	4.0
ACCT 1120	Accounting III <sup>~</sup> 📄📄	4.0
BSAD 1100	Business Law I <sup>~</sup> 📄	4.5
BSAD 2100	Principles of Management <sup>~</sup> 📄	4.5
FINA 2240	Financial Statement Analysis <sup>~</sup> 📄	4.5
FINA 2410	Consumer Credit <sup>~</sup> 📄	4.5
LAWS 2325	Bankruptcy, Credit, and Collections Law	4.5

LAWS 2325: Additional prerequisite(s) may be required.

## **Entrepreneurship (BENS)**

**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	Introduction to Entrepreneurship <sup>~</sup> 📄📄	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup> 📄	4.5
ENTR 2050	Marketing for the Entrepreneur <sup>~</sup> 📄	4.5
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup> 📄	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup> 📄	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup> 📄	4.5

## Financial Counseling (BFCSD)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate develops a strong background for those seeking to pursue a career in counseling individuals regarding personal financial matters.

### **Requirements for Financial Counseling career certificate (26.0-27.0 credit hrs.)**

#### **Courses**

FINA 1200	Wealth-Building Fundamentals and Personal Finance~†	4.5
FINA 2210	Financial Planning Principles~†	4.5
FINA 2400	Financial Counseling~†	4.5
FINA 2410	Consumer Credit~†	4.5
HMRL 1010	Human Relations Skills~†☉	4.5
	OR	
HMSV 1110	Interpersonal Communication Skills~†	3.5
<b>One of the following:</b>		
PSYC 2140	Behavior Modification and Principles of Learning~†	4.5
SOCI 2160	Marital and Family Relationships~†	4.5
PSYC 1010	Introduction to Psychology~†☉	4.5
SOCI 1010	Introduction to Sociology~†☉	4.5

## Financial Planning Specialist (BFPS1)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate prepares students to participate in the financial planning industry providing technical support to industry professionals including Certified Financial Planners™. Students are exposed to the fundamental elements of the financial planning process, including principles and practices, insurance, investments, retirement planning, tax planning, and estate planning. Upon completion of this program, potential employment opportunities exist with companies, government agencies, and nonprofit organizations in the financial services industry.

### **Requirements for Financial Planning Specialist career certificate (32.5 credit hrs.)**

#### **Courses**

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

## Financial Services Management (BFSSD)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate provides practitioners with background information and builds skills needed in managing the financial services function in a business setting.

### **Requirements for Financial Services Management career certificate (27.0 credit hrs.)**

#### **Courses**

FINA 1311	Introduction to Financial Services Industry~†	4.5
FINA 2209	Risk Management and Insurance~†	4.5
FINA 2210	Financial Planning Principles~†	4.5
FINA 2220	Asset and Liability Management for Financial Institutions	4.5
FINA 2240	Financial Statement Analysis~†	4.5
LAWS 2325	Bankruptcy, Credit, and Collections Law	4.5
FINA 2240, LAWS 2325: Additional prerequisite(s) may be required.		

## Financial Services Specialist (BMFSD)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate develops a strong general background for those seeking to pursue a career in finance.

### **Requirements for Financial Services Specialist career certificate (32.5 credit hrs.)**

#### **Courses**

ECON 1000	Macroeconomics~†	4.5
FINA 1200	Wealth-Building Fundamentals and Personal Finance~†	4.5
FINA 1311	Introduction to Financial Services Industry~†	4.5
FINA 1320	Financial Calculator Applications~†	1.0
FINA 2100	Introduction to Investments~†	4.5
FINA 2981	Internship in Finance	variable
MATH 1220	Business Mathematics~†	4.5
	Humanities/Social Science course	4.5

## Insurance and Risk Management (BIMS1)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate provides a strong background for those entering the insurance industry or seeking a strong understanding of this business specialty.

### **Requirements for Insurance and Risk Management career certificate (27.0 credit hrs.)**

#### **Courses**

BSAD 1200	Principles of Selling	4.5
FINA 2209	Risk Management and Insurance <sup>~</sup>	4.5
INSU 1000	Principles of Health and Life Insurance <sup>~</sup>	4.5
INSU 1100	Principles of Property and Casualty Insurance <sup>~</sup>	4.5
INSU 2421	Insurance Law Electives	4.5 4.5

## Insurance Entrepreneurship (BMIED)

**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 insurance industry.

### **Requirements for Insurance Entrepreneurship career certificate (27.0 credit hrs.)**

#### **Courses**

BSAD 1200	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship <sup>~</sup>	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	4.5
INSU 1000	Principles of Health and Life Insurance <sup>~</sup>	4.5
INSU 1100	Principles of Property and Casualty Insurance <sup>~</sup>	4.5

Licensure to sell insurance is required in the state of Nebraska. INSU 1000 and INSU 1100 are designed to help prepare students to take the state of Nebraska insurance exam. It is recommended that students take the state insurance exam soon after completion of either INSU 1000 or INSU 1100 and prior to completion of the career certificate in Insurance Entrepreneurship.

## International Business (BIBSD)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

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

### **Requirements for International Business career certificate (25.5 credit hrs.)**

#### **Courses**

BSAD 2700	Introduction to International Business	4.5
BSAD 2710	Import and Export Operations	4.5
BSAD 2720	International Marketing Management <sup>~</sup>	4.5
ECON 2720	International Economics	4.5

ECON 2720: Additional prerequisite(s) may be required.

#### **One of the following:**

Additional prerequisite(s) may be required.

FREN 1020	Beginning French II <sup>~</sup>	7.5
GERM 1020	Elementary German II <sup>~</sup>	7.5
JAPN 1020	Beginning Japanese II	7.5
SPAN 1120	Elementary Spanish II <sup>~</sup>	7.5

## Marketing Administration (BMSAD)

**Award:** Career certificate

**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate provides students with marketing, promotional, and management skills as generally used in corporate, retail, and small business settings.

### **Requirements for Marketing Administration career certificate (27.0 credit hrs.)**

#### **Courses**

BSAD 1010	Principles of Marketing <sup>~</sup>	4.5
BSAD 1200	Principles of Selling	4.5
BSAD 1201	Advertising and Sales Promotion	4.5
BSAD 1210	Retailing	4.5
BSAD 2720	International Marketing Management <sup>~</sup>	4.5

#### **Select one course from the following:**

BSAD 1100	Business Law I <sup>~</sup>	4.5
BSAD 1202	Direct Marketing Methods	4.5
BSAD 2100	Principles of Management <sup>~</sup>	4.5
ENTR/FINA	Any business course	4.5

BSAD 1202 (Fall only)

## 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 (25.5 credit hrs.)**

#### **Courses**

BSAD 1010	Principles of Marketing <sup>Ⓢ</sup>	4.5
BSAD 1250	Introduction to Not-for-Profit Management	4.5
BSAD 2100	Principles of Management <sup>Ⓢ</sup>	4.5
BSAD 2981	Internship in Business	variable
ENGL 2210	Grant Writing	4.5
HMSV 1010	Introduction to Human Services <sup>Ⓢ</sup>	4.0
	OR	
THEA 2200	Arts Administration	4.5

## 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	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision <sup>Ⓢ</sup>	4.5
BSAD 2300	Quality Management: Statistical Process Control	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
BSAD 2420	Production and Operations Management	4.5

## 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	Introduction to Quality Management	4.5
BSAD 1600	Principles of Supervision <sup>Ⓢ</sup>	4.5
BSAD 2600	Human Resources Management <sup>Ⓢ</sup>	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	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship <sup>Ⓢ</sup> Ⓢ	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>Ⓢ</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>Ⓢ</sup>	4.5
REES 1000	Real Estate Principles <sup>Ⓢ</sup>	4.5
REES 1100	Real Estate Law <sup>Ⓢ</sup>	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 Salesperson Exam prior to completion of REES 1000 and REES 1100 so that the student 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
<b>Total credit hours required</b>	<b>99.0 -101.0</b>

### **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**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### **Cultural diversity**

Select one course from the following:

ENGL 2530	Ethnic Literature	4.5
HIST 1050	Introduction to Black History	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
SOCI 2060	Multicultural Issues	4.5

#### **Humanities**

Select two courses from the following:

ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2530	Ethnic Literature	4.5
ENGL 2610	British Literature I	4.5
ENGL 2620	British Literature II	4.5
MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 1010	Introduction to Philosophy	4.5
PHIL 2030	Introduction to Ethics	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
THEA 1000	Introduction to the Theatre	4.5

### **Natural sciences**

Natural sciences 6.0-7.5

See Natural Sciences course options (p. 297)

### **Social sciences**

Select two courses from the following:

GEOG 1010	Fundamentals of Geography	4.5
GEOG 1050	Introduction to Human Geography	4.5
HIST 1010	United States History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	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
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2160	Marital and Family Relationships	4.5

### **Quantitative/numeracy skills**

MATH 1420 College Algebra 5.0

MATH 1420: Additional prerequisite(s) may be required.

#### **Other**

HMRL 1010	Human Relations Skills	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 II	4.0
ACCT 1120	Accounting III	4.0
BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 1100	Business Law I	4.5
BSAD 2100	Principles of Management	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5

#### **Select one course from the following:**

BSAD 2700	Introduction to International Business	4.5
BSAD 2720	International Marketing Management	4.5
ECON 2720	International Economics	4.5

UNO and UNL may have more specific requirements. Refer to [www.mccneb.edu/articulation](http://www.mccneb.edu/articulation) for current information.

## Suggested Guide for Courses

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 prepared. It is strongly recommended that students complete math requirements early in the program of study.

### First Year

#### First quarter

BSAD 1000	Introduction to Business <sup>~</sup>	4.5
ENGL 1010	English Composition I <sup>~</sup>	4.5
HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
MATH 1420	College Algebra <sup>~</sup>	5.0

#### Second quarter

ACCT 1100	Accounting I <sup>~</sup>	4.0
ECON 1000	Macroeconomics <sup>~</sup>	4.5
ENGL 1020	English Composition II <sup>~</sup>	4.5
	Humanities elective	4.5

#### Third quarter

ACCT 1110	Accounting II <sup>~</sup>	4.0
ECON 1100	Microeconomics <sup>~</sup>	4.5
SPCH 1110	Public Speaking <sup>~</sup>	4.5
	Social science elective	4.5

### Second Year

#### Fifth quarter

ACCT 1120	Accounting III <sup>~</sup>	4.0
INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5
	OR	
ACCT 2230	Microcomputer Business Applications	4.0
BSAD 1100	Business Law I <sup>~</sup>	4.5
BSAD 2100	Principles of Management <sup>~</sup>	4.5

#### Sixth quarter

BSAD 1010	Principles of Marketing <sup>~</sup>	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

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://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

*Individuals considering a degree or employment in the human services or chemical dependency fields should be aware of strict 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.*

## 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
<b>Total credit hours required</b>	<b>108.5–110.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

It is extremely 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	4.5
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#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### 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~	4.0
HMSV 1110	Interpersonal Communication Skills~	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management~	4.5
HMSV 1150	Community Resources	4.5
HMSV 2050	Professional Ethics and Issues~	2.0
HMSV 2110	Group Counseling	4.5
HMSV 2120	Social Services Policy	4.5
HMSV 2150	Multicultural Counseling	4.5
HMSV 2250	Survey of Exceptional Populations	4.5
HMSV 2310	Prepracticum	2.5
HMSV 2450	Crisis Intervention	3.0
HMSV 2991	Practicum I - General Human Services	5.0
HMSV 2992	Practicum II - General Human Services	5.0
HMSV 2993	Practicum III - General Human Services	5.0
PSYC 1120	Human Growth and Development~	4.5
PSYC 2350	Fundamentals of Abnormal Psychology~	4.5
SOCI 1010	Introduction to Sociology~	4.5
<b>Select one of the following suggested courses:</b>		
ENGL 2210	Grant Writing	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
HMSV 1160	Medical and Social Aspects of Addictions~	4.5
HMSV 2130	Treatment Issues in Chemical Dependency~	4.0
HMSV 2140	Family Therapy	4.0
HMSV 2160	Advanced Group Skills	4.5
PSYC 1110	Parenting and Family Problem Solving~	4.5
PSYC 2140	Behavior Modification and Principles of Learning~	4.5
PSYC 2150	Survey of Human Sexuality~	4.5
SOCI 2150	Survey of Human Sexuality~	4.5
PSYC 2450	Social Psychology~	4.5
SOCI 2450	Social Psychology~	4.5
SLIS 1010	American Sign Language I	6.0
SOCI 1050	Sociology of Healthcare~	4.5
SOCI 1250	Introduction to Anthropology~	4.5
SOCI 2050	Current Social Problems~	4.5
SOCI 2060	Multicultural Issues~	4.5
SOCI 2110	Introduction to Gerontology~	4.5
SOCI 2160	Marital and Family Relationships~	4.5
SOCI 2311	Juvenile Justice~	4.5
SPAN 1050	Spanish for Business I~	4.5

**Suggested guide for courses**

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	English Composition I~	4.5
INFO 1001	Information Systems and Literacy~	4.5
	Mathematics	4.5
PSYC 1010	Introduction to Psychology~	4.5

**Second quarter**

ENGL 1020	English Composition II~	4.5
HMSV 1010	Introduction to Human Services~	4.0
HMSV 1110	Interpersonal Communication Skills~	3.5
SOCI 1010	Introduction to Sociology~	4.5

**Third quarter**

HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1140	Assessment, Case Planning, and Management~	4.5
HMSV 1150	Community Resources	4.5
HMRL 1010	Human Relations Skills~	4.5

**Fourth quarter**

HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 2050	Professional Ethics and Issues~	2.0
HMSV 2150	Multicultural Counseling	4.5
HMSV 2310	Prepracticum	2.5
PSYC 1120	Human Growth and Development~	4.5

**Second year****Fifth quarter**

HMSV 2110	Group Counseling	4.5
HMSV 2250	Survey of Exceptional Populations	4.5
HMSV 2450	Crisis Intervention	3.0
HMSV 2991	Practicum I - General Human Services	5.0

**Sixth quarter**

HMSV 2120	Social Services Policy	4.5
HMSV 2992	Practicum II - General Human Services	5.0
PSYC 2350	Fundamentals of Abnormal Psychology~	4.5

**Seventh quarter**

HMSV 2993	Practicum III - General Human Services	5.0
	Other requirements	4.0-6.0

The Human Services program has special admission requirements. Students should consult the Human Services program manual. After successfully completing ENGL 1010, PSYC 1010, MATH selection, HMSV 1010, HMSV 1110, HMSV 1120, and HMSV 1140, students must apply for admission to the program and receive approval from the Human Services Faculty Review Committee. Successful completion of all courses as stated for the first year of the program is required to be eligible to apply for participation in a practicum course.

## **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	27.0
Major requirements	30.0
<b>Total credit hours required</b>	<b>57.0</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### **Social sciences**

PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Other**

INFO 1001	Information Systems and Literacy	4.5
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### **Major requirements for Human Services – General (30.0 credit hrs.)**

#### **Courses**

HMSV 1010	Introduction to Human Services	4.0
HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management	4.5
HMSV 1150	Community Resources	4.5
HMSV 2050	Professional Ethics and Issues	2.0
HMSV 2150	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
<b>Total credit hours required</b>	<b>108.0–110.0</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

It is extremely 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	4.5
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#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Other**

HMRL 1010	Human Relations Skills	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	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management	4.5
HMSV 1160	Medical and Social Aspects of Addictions	4.5
HMSV 2050	Professional Ethics and Issues	2.0

HMSV 2110	Group Counseling	4.5
HMSV 2130	Treatment Issues in Chemical Dependency	4.0
HMSV 2140	Family Therapy	4.0
HMSV 2150	Multicultural Counseling	4.5
HMSV 2160	Advanced Group Skills	4.5
HMSV 2310	Prepracticum	2.5
HMSV 2450	Crisis Intervention	3.0
HMSV 2994	Practicum I - Chemical Dependency Counseling	5.0
HMSV 2995	Practicum II - Chemical Dependency Counseling	5.0
HMSV 2996	Practicum III - Chemical Dependency Counseling	5.0
PSYC 1120	Human Growth and Development	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

HMSV 2994, HMSV 2995, HMSV 2996: Because of the limited seats that are available for the required practicum courses (a factor beyond the College's control), there may be a delay in graduation from the program.

HMSV 2994, HMSV 2995, and 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	Grant Writing	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
HMSV 1010	Introduction to Human Services	4.0
HMSV 1150	Community Resources	4.5
HMSV 2120	Social Services Policy	4.5
PSYC 1110	Parenting and Family Problem Solving	4.5
PSYC 2140	Behavior Modification and Principles of Learning	4.5
PSYC 2150	Survey of Human Sexuality	4.5
PSYC 2450	Social Psychology	4.5
SLIS 1010	American Sign Language I	6.0
SOCI 1050	Sociology of Healthcare	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2060	Multicultural Issues	4.5
SOCI 2110	Introduction to Gerontology	4.5
SOCI 2160	Marital and Family Relationships	4.5
SOCI 2311	Juvenile Justice	4.5
SPAN 1050	Spanish for Business I	4.5

## Suggested Course Guide

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 I	4.5
INFO 1001	Information Systems and Literacy	4.5
	Mathematics	4.5
PSYC 1010	Introduction to Psychology	4.5

#### Second quarter

ENGL 1020	English Composition II	4.5
HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1160	Medical and Social Aspects of Addictions	4.5
PSYC 1120	Human Growth and Development	4.5

#### Third quarter

HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1140	Assessment, Case Planning, and Management	4.5
HMSV 2130	Treatment Issues in Chemical Dependency	4.0
HMRL 1010	Human Relations Skills	4.5
SOCI 1010	Introduction to Sociology	4.5

#### Fourth quarter

HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 2050	Professional Ethics and Issues	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	4.5

#### Seventh quarter

HMSV 2996	Practicum III - Chemical Dependency Counseling	5.0
	Other requirements	3.0-7.5

The Human Services program has special admission requirements. Students should consult the Human Services program manual. After successfully completing ENGL 1010, PSYC 1010, MATH selection, HMSV 1110, HMSV 1120, HMSV 1140, and HMSV 1160, students must apply for admission to the program and receive approval by the Human Services Faculty Review Committee.

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 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.

## **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
<b>Total credit hours required</b>	<b>55.5</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### **Social sciences**

PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Other**

INFO 1001	Information Systems and Literacy	4.5
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### **Major requirements for Human Services – Chemical Dependency (28.5 credit hrs.)**

#### **Courses**

HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management	4.5
HMSV 1160	Medical and Social Aspects of Addictions	4.5
HMSV 2050	Professional Ethics and Issues	2.0
HMSV 2130	Treatment Issues in Chemical Dependency	4.0
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 a 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 will 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
<b>Total credit hours required</b>	<b>99.0–102.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### Humanities/social sciences

PHIL 1100	Critical Reasoning	4.5
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#### Quantitative/numeracy skills

MATH 1410	Statistics	4.5
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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.)

#### Courses

BSAD 1100	Business Law I	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1111	Microsoft Word for the Law Office	4.5
LAWS 1230	Legal Research and Writing I	4.5
LAWS 2240	Legal Research and Writing II	4.5
LAWS 2324	Criminal Law and Procedures	4.5
POLS 2050	American National Government	4.5
	OR	
POLS 2060	The Constitution	4.5
SPCH 1110	Public Speaking	4.5

### Option requirements for Legal Studies (36.0-39.5 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 (38.0 credit hrs.)**

Legal Studies – Legal Administrative Assistant (LSAAO) (p. 158)

#### **Paralegal (39.5 credit hrs.)**

Legal Studies – Paralegal (LSPA0) (p. 159)

#### **Pre-law (36.0 credit hrs.)**

Legal Studies – Pre-Law (LSPLO) (p. 161)

## 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	38.0
<b>Total credit hours required</b>	<b>101.0</b>

### General education requirements

See General education requirements for Legal Studies (p. 157)

### Major requirements for Legal Studies

See Major requirements for Legal Studies (p. 157)

### Option requirements for Legal Administrative Assistant (38.0 credit hrs.)

#### Courses

INFO 1008	Business Office Communications	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1013	Keyboard Skillbuilding	2.0
INFO 1213	Database Fundamentals	4.5
INFO 1214	Business Presentations	4.5
INFO 1215	Document Processing	4.5
INFO 1219	Professional Practices	4.5
INFO 2240	Office Technology Capstone	5.0
INFO 2981	Internship	variable

## Suggested Guide for Courses

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	Information Systems and Literacy	4.5
ENGL 1010	English Composition I	4.5
PHIL 1100	Critical Reasoning	4.5

#### Second quarter

ENGL 1020	English Composition II	4.5
POLS 2060	The Constitution	4.5
	OR	
POLS 2070	Contemporary Social and Political Issues	4.5
SPCH 1110	Public Speaking	4.5

#### Third quarter

LAWS 1101	Introduction to Law	4.5
LAWS 1111	Microsoft Word for the Law Office	4.5
MATH 1410	Statistics	4.5

#### Fourth quarter

BSAD 1100	Business Law I	4.5
HMRL 1010	Human Relations Skills	4.5
LAWS 2324	Criminal Law and Procedures	4.5

### Second Year

#### Fifth quarter

INFO 1008	Business Office Communications	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1013	Keyboard Skillbuilding	2.0

#### Sixth quarter

INFO 1212	Spreadsheets	4.5
INFO 1213	Database Fundamentals	4.5
INFO 1214	Business Presentations	4.5

#### Seventh quarter

INFO 1215	Document Processing	4.5
INFO 2240	Office Technology Capstone	5.0
LAWS 1230	Legal Research and Writing I	4.5

#### Eighth quarter

INFO 1219	Professional Practices	4.5
INFO 2981	Internship	variable
LAWS 2240	Legal Research and Writing II	4.5

The Legal Administrative Assistant option is not a program for the education of paralegals.

## **Legal Studies – Paralegal (LSPA0)**

**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 and 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.

### **Paralegal Program Admission**

The Paralegal program has special admission requirements. Students may register for LAWS 1100 and LAWS 1101 courses without admission. Approval by Jo Wandel is required for entry to all other courses. After completing the Paralegal Program Application (formerly the Legal Assistant Program Application), students meet with a faculty member for program entry approval.

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 can be found at:  
[www.mccneb.edu/laws/documents/paralegal\\_form\\_proof.pdf](http://www.mccneb.edu/laws/documents/paralegal_form_proof.pdf)

Paralegal Program PowerPoint Presentation can be found at:  
[www.mccneb.edu/laws/default.asp?Theme=1](http://www.mccneb.edu/laws/default.asp?Theme=1)

The file is quite large, so it may take a moment to load in your web browser.

### **Graduation Requirements**

General education	27.0
Major requirements	36.0
Option requirements	17.0
Electives	22.5
<b>Total credit hours required</b>	<b>102.5</b>

### **General education requirements**

See General education requirements for Legal Studies (p. 157)

### **Major requirements for Legal Studies**

See Major requirements for Legal Studies (p. 157)

### **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	Individual Income Tax Accounting	4.0
	OR	
BSAD 1110	Business Law II <sup>†</sup>	4.5
	OR	
REES 1100	Real Estate Law <sup>†</sup>	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.

## Suggested Guide for Courses

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	4.5
ENGL 1010	English Composition I	4.5
PHIL 1100	Critical Reasoning	4.5

#### Second quarter

ENGL 1020	English Composition II	4.5
POLS 2050	American National Government	4.5
	OR	
POLS 2060	The Constitution	4.5
SPCH 1110	Public Speaking	4.5

#### Third quarter

LAWS 1100	The Paralegal Profession	4.5
LAWS 1101	Introduction to Law	4.5
MATH 1410	Statistics	4.5

#### Fourth quarter

BSAD 1100	Business Law I	4.5
HMRL 1010	Human Relations Skills	4.5
LAWS 1110	Litigation	4.5
LAWS 1111	Microsoft Word for the Law Office	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

	Elective	4.5
	Elective	4.5
LAWS 2240	Legal Research and Writing II	4.5

#### Seventh quarter

	Elective	4.5
LAWS 2982	Internship II	4.0

#### Eighth quarter

	Elective	4.5
LAWS 2981	Internship I	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
<b>Total credit hours required</b>	<b>99.0</b>

### General education requirements

See General education requirements for Legal Studies (p. 157)

### Major requirements for Legal Studies

See Major requirements for Legal Studies (p. 157)

### 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	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
HIST 1010	United States History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	4.5
LAWS 1110	Litigation	4.5
PHIL 1010	Introduction to Philosophy	4.5
PHIL 1030	Professional Ethics	4.5
PHIL 2400	Philosophy and Literature	4.5
PHIL 2600	Contemporary Issues in Philosophy	4.5
PSYC 1010	Introduction to Psychology	4.5

## Suggested Guide for Courses

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	4.5
ENGL 1010	English Composition I	4.5
PHIL 1100	Critical Reasoning	4.5

#### Second Quarter

ENGL 1020	English Composition II	4.5
POLS 2060	The Constitution	4.5
	OR	
POLS 2070	Contemporary Social and Political Issues	4.5
SPCH 1110	Public Speaking	4.5

#### Third Quarter

	Elective	4.5
LAWS 1101	Introduction to Law	4.5
MATH 1410	Statistics	4.5

#### Fourth Quarter

BSAD 1100	Business Law I	4.5
HMRL 1010	Human Relations Skills	4.5
LAWS 2324	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 Office	4.5
LAWS 1230	Legal Research and Writing I	4.5

#### Sixth Quarter

	Elective	4.5
	Elective	4.5
LAWS 2240	Legal Research and Writing II	4.5

#### Seventh Quarter

	Elective	4.5
	Elective	4.5

#### Eighth Quarter

	Elective	4.5
	Elective	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
<b>Total credit hours required</b>	<b>66.5</b>

### **Major requirements for Paralegal Accelerated Certificate (39.5 credit hrs.)**

#### **Courses**

BSAD 1100	Business Law I	4.5
LAWS 1100	The Paralegal Profession	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1110	Litigation	4.5
LAWS 1111	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 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	Business Law II	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 2324	Criminal Law and Procedures	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

## **Suggested Guide for Courses**

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	4.5

#### **Second quarter**

BSAD 1100	Business Law I	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

# 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.

## **Our Programs**

Culinary/Hospitality

Horticulture, Land Systems, and Management

## 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 (102.0 – 105.0 credit hrs.)  
Prepares students for a career as a professional baker or pastry chef.
2. Culinary Arts (102.0 – 105.0 credit hrs.)  
Prepares students for a career as a chef, sous chef, or culinarian.

***The Baking and Pastry and Culinary Arts options are accredited by the American Culinary Federation Education Institute Accrediting Commission.***

3. Culinology Transfer (106.0 – 106.5 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 (100.0 – 103.0 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 (99.5 credit hrs.)  
This option provides the entrepreneurial education for students wanting to own and operate a business in the hospitality industry.

### III. Pre-Dietetics Transfer

This degree provides students with the first two years of studies required to pursue advanced studies in dietetics and transfer to the University of Nebraska–Lincoln for completion of a bachelor's in dietetics. For more information on degree requirements, contact the Dean of Culinary Arts at 402-457-2510.

Credits and degrees may transfer to many other colleges, including the University of Nebraska–Lincoln and Bellevue University.

Visit [www.mccneb.edu/articulation](http://www.mccneb.edu/articulation) to find the latest A-to-B agreements and transfer guides.

Contact 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™ Transfer

Hospitality and Restaurant Leadership

Food and Event Management

Hospitality Entrepreneurship

#### Certificate of Achievement:

Culinary Arts and Management

Baking and Pastry

#### 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) Baking and Pastry, (2) Culinary Arts, and (3) Culinology Transfer.

### **Graduation Requirements**

General education	27.0
Major requirements	40.0
Option requirements	35.0–39.5
<b>Total credit hours required</b>	<b>102.0–106.5</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 CA Technical Writing and ENGL 1240 CA Oral and Written Reports are recommended as they are specific to culinary students.

Transfer students select ENGL 1010 and ENGL 1020.

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

Culinology transfer students select ECON 1000 or ECON 1100 for social sciences requirement.

#### **Quantitative/numeracy skills**

MATH 1220	Business Mathematics <sup>~</sup> Ⓞ	4.5
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Transfer students select MATH 1420

#### **Other**

HMRL 1010	Human Relations Skills <sup>~</sup> Ⓞ	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓞ	4.5

### **Major requirements for Culinary Arts and Management (40.0 credit hrs.)**

#### **Courses**

CHRM 1000	CHRM Orientation	2.0
CHRM 1010	Culinary Math	2.0
CHRM 1020	Sanitation <sup>~</sup> Ⓞ	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
CHRM 1120	Soup and Sauce Basics	4.0
CHRM 1210	Baking Basics	4.0
CHRM 1550	Customer Service	1.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2470	Hospitality Supervision <sup>~</sup> Ⓞ	4.5
CHRM 2480	Purchasing	4.5
CHRM 2930	Study Abroad	3.0
	OR	
CHRM 2981	Internship	3.0

**Critical Advising Note:** Students entering the Culinary Arts programs who 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 1220 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. 166)

#### **Culinary Arts (35.0-38.0 credit hrs.)**

Culinary Arts and Management - Culinary Arts (CACA1) (p. 167)

#### **Culinology™ Transfer (39.0-39.5 credit hrs.)**

Culinary Arts and Management - Culinary Research/Culinology Transfer (CACR1) (p. 168)

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.

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://www.mccneb.edu/articulation).

## **Culinary Arts and Management - Baking and Pastry (CABA2)**

### **General education requirements**

See General education requirements for Culinary Arts and Management (p. 165)

### **Major requirements for Culinary Arts and Management**

See Major requirements for Culinary Arts and Management (p. 165)

### **Option requirements for Culinary Arts and Management - Baking and Pastry (35.0-38.0 credit hrs.)**

#### **Courses**

CHRM 1220	Pastries	3.0
CHRM 1250	Artisan Bread	4.0
CHRM 1260	Cakes	4.0
CHRM 1990	Skills Demonstration for Bakers	.5
CHRM 2230	Baking Production	4.0
CHRM 2250	International Breads	3.0
CHRM 2270	Chocolate, Sugar, and Decorations	3.0
CHRM 2280	Plated Desserts	4.0
CHRM 2982	Bakery Student Manager	3.0
CHRM 2990	Portfolio Development for Bakers	.5

#### **Electives – select 6.0 to 9.0 credit hours from the following:**

CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1140	A la Carte Cookery: American Regional	3.0
CHRM 2550	Table Service	3.0
CHRM 2650	Banquet Service	3.0
CHRM 2560	Beverage Management	3.0
CHRM 2360	Physiology of Flavor	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2970-9	Culinary Competition	3.0
CHRM 2900	Special Topics in Culinary Arts	variable
HLSM 2510	Olericulture	3.0

CHRM 2360: Prerequisites CHRM 1030 and CHRM 1035

### **Suggested Course Guide – Baking and Pastry**

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	Sanitation~†	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics~†	4.5

##### **Second quarter**

CHRM 1010	Culinary Math	2.0
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
	Humanities	4.5

##### **Fourth quarter**

CHRM 1250	Artisan Bread	4.0
	OR	
CHRM 1260	Cakes	4.0
CHRM 1990	Skills Demonstration for Bakers	.5
CHRM 2460	Cost Management	4.5
ENGL 1220	Technical Writing~†	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
ENGL 1240	Oral and Written Reports~†	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
HMRL 1010	Human Relations Skills~†	4.5

##### **Seventh quarter**

CHRM 2470	Hospitality Supervision~†	4.5
CHRM 2982	Bakery Student Manager	3.0
	Elective	3.0-4.5

##### **Eighth quarter**

CHRM 2981	Internship	3.0
CHRM 2990	Portfolio Development for Bakers	.5
INFO 1001	Information Systems and Literacy~†	4.5
	Elective	3.0-4.5

## Culinary Arts and Management - Culinary Arts (CACA1)

### General education requirements

See General education requirements for Culinary Arts and Management (p. 165)

### Major requirements for Culinary Arts and Management

See Major requirements for Culinary Arts and Management (p. 165)

### 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	Protein Fabrication	3.0
CHRM 1140	A la Carte Cookery: American Regional	3.0
CHRM 1999	Skills Demonstration for Culinarians	.5
CHRM 2110	Quantity Production	4.0
CHRM 2120	Garde Manger	4.0
CHRM 2130	Fine Dining	4.0
CHRM 2550	Table Service	3.0
CHRM 2980	Student Manager	3.0
CHRM 2999	Portfolio Development for Culinarians	.5

#### **Electives - select 6.0 to 9.0 credit hours from the following:**

CHRM 1060	Spanish for Culinary Professionals	3.0
CHRM 1220	Pastries	3.0
CHRM 1250	Artisan Bread	4.0
CHRM 1260	Cakes	4.0
CHRM 2360	Physiology of Flavor	4.5
CHRM 2410	Marketing and Industry Perspectives	4.5
CHRM 2560	Beverage Management	3.0
CHRM 2465	Food Service Financial Management	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2610	Event Planning	3.0
CHRM 2650	Banquet Service	3.0
CHRM 2920	Food and Media Studio	4.5
CHRM 2970	Culinary Competition	3.0
CHRM 297A	Competition Training Camp	1.0
CHRM 2971-9	Advanced Culinary Competition	3.0
CHRM 2900	Special Topics in Culinary Arts	variable
HLSM 2510	Olericulture	3.0

## Suggested Course Guide – Culinary Arts

### After two years of full-time study

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	CHRM Orientation	2.0
CHRM 1020	Sanitation <sup>~</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics <sup>~</sup>	4.5

##### Second quarter

CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5
CHRM 1010	Culinary Math	2.0

##### Third quarter

CHRM 1120	Soup and Sauce Basics	4.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1550	Customer Service	1.0
	Humanities	4.5

##### Fourth quarter

CHRM 1140	A la Carte Cookery: American Regional	3.0
CHRM 1999	Skills Demonstration for Culinarians	.5
CHRM 2460	Cost Management	4.5
ENGL 1220	Technical Writing <sup>~</sup>	4.5

#### Second Year

##### Fifth quarter

CHRM 2110	Quantity Production	4.0
CHRM 2470	Hospitality Supervision <sup>~</sup>	4.5
ENGL 1240	Oral and Written Reports <sup>~</sup>	4.5

##### Sixth quarter

CHRM 2120	Garde Manger	4.0
CHRM 2480	Purchasing	4.5
	Elective	3.0-4.5

##### Seventh quarter

CHRM 2130	Fine Dining	4.0
CHRM 2550	Table Service	3.0
HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
	Elective	3.0-4.5

##### Eighth quarter

CHRM 2980	Student Manager	3.0
CHRM 2981	Internship	3.0
CHRM 2999	Portfolio Development for Culinarians	.5
INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5

**After six quarters of full-time study**

Below is a suggested guide for students planning careers in culinary arts after six quarters of full-time study.

**First Year****First quarter**

CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation <sup>☞</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics <sup>☞</sup>	4.5
	Humanities	4.5

**Second quarter**

CHRM 1010	Culinary Math	2.0
CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1120	Soup and Sauce Basics	4.0
	OR	
CHRM 1130	Protein Fabrication	3.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5

**Third quarter**

CHRM 1120	Soup and Sauce Basics	4.0
	OR	
CHRM 1130	Protein Fabrication	3.0
CHRM 1550	Customer Service	1.0
CHRM 2460	Cost Management	4.5
CHRM 2470	Hospitality Supervision <sup>☞</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>☞</sup> 	4.5

**Fourth quarter**

CHRM 1140	A la Carte Cookery: American Regional	3.0
CHRM 1999	Skills Demonstration for Culinarians	.5
CHRM 2110	Quantity Production	4.0
CHRM 2480	Purchasing	4.5
ENGL 1220	Technical Writing <sup>☞</sup>	4.5

**Second Year****Fifth quarter**

CHRM 2120	Garde Manger	4.0
CHRM 2550	Table Service	3.0
CHRM 2981	Internship	3.0
ENGL 1240	Oral and Written Reports <sup>☞</sup>	4.5
	Elective	3.0-4.5

**Sixth quarter**

CHRM 2130	Fine Dining	4.0
CHRM 2980	Student Manager	3.0
CHRM 2999	Portfolio Development for Culinarians	.5
HMRL 1010	Human Relations Skills <sup>☞</sup> 	4.5
	Elective	3.0-4.5

**Culinary Arts and Management - Culinary Research/Culinology Transfer (CACR1)****General education requirements**

See General education requirements for Culinary Arts and Management (p. 165)

**Major requirements for Culinary Arts and Management**

See Major requirements for Culinary Arts and Management (p. 165)

**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	.5
CHRM 2360	Physiology of Flavor	4.5
CHRM 2370	Food Science <sup>☞</sup>	4.5
CHRM 2380	Sensory Science Products	4.5
CHRM 2390	Research and Development of Food Products	4.5
CHRM 2999	Portfolio Development for Culinarians	.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	Garde Manger	4.0
CHRM 2130	Fine Dining	4.0
CHRM 1250	Artisan Bread	4.0
CHRM 2110	Quantity Production	4.0
CHRM 2465	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.

## Suggested Course Guide - Culinary

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

### First Year

#### First quarter

CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation <sup>~</sup> Ⓒ	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics <sup>~</sup> Ⓒ	4.5

#### Second quarter

CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5
CHRM 1010	Culinary Math	2.0

#### Third quarter

CHEM 1210	General Chemistry: Part I	2.0
CHRM 1120	Soup and Sauce Basics	4.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1550	Customer Service	1.0

#### Fourth quarter

CHRM 1140	A la Carte Cookery: American Regional	3.0
CHRM 1999	Skills Demonstration for Culinaricians	.5
CHRM 2460	Cost Management	4.5
	Humanities	4.5

### Second Year

#### Fifth quarter

CHRM 2360	Physiology of Flavor	4.5
CHRM 2370	Food Science <sup>~</sup> Ⓒ	4.5
CHRM 2470	Hospitality Supervision <sup>~</sup> Ⓒ	4.5

CHRM 2370: (Fall only)

#### Sixth quarter

CHRM 2380	Sensory Science Products	4.5
CHRM 2480	Purchasing	4.5
ENGL 1010	English Composition I <sup>~</sup> Ⓒ	4.5

CHRM 2380: (Winter only)

#### Seventh quarter

CHRM 2390	Research and Development of Food Products	4.5
HMRL 1010	Human Relations Skills <sup>~</sup> Ⓒ	4.5
	Elective	4.0-4.5

CHRM 2390: (Spring only)

#### Eighth quarter

CHRM 2981	Internship	3.0
CHRM 2999	Portfolio Development for Culinaricians	.5
ENGL 1020	English Composition II <sup>~</sup> Ⓒ	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓒ	4.5

## 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. Students seeking acceptance into second-year cohorts must possess a certificate of achievement.

### Graduation Requirements

General education	13.5
Major requirements	38.5
<b>Total credit hours required</b>	<b>52.0</b>

### General education requirements (13.5 credit hrs.)

#### Communications

English level I 4.5

See Communications course options (p. 38)

ENGL 1220 CA is recommended

#### Quantitative/numeracy skills

Mathematics 4.5

See Quantitative/numeracy skills course options (p. 40)

#### Humanities/social sciences

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

### Major requirements for Culinary Arts and Management (38.5 credit hrs.)

#### Courses

CHRM 1000	CHRM Orientation	2.0
CHRM 1010	Culinary Math	2.0
CHRM 1020	Sanitation <sup>~</sup> Ⓒ	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1120	Soup and Sauce Basics	4.0
CHRM 1130	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	Skills Demonstration for Culinaricians	.5
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	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. Students seeking acceptance into second-year cohorts must possess a certificate of achievement.

### **Graduation Requirements**

General education	13.5
Major requirements	35.5
<b>Total credit hours required</b>	<b>49.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I	4.5
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See Communications course options (p. 38)

ENGL 1220 CA is recommended

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

### **Major requirements for Baking and Pastry Certificate (35.5 credit hrs.)**

#### **Courses**

CHRM 1000	CHRM Orientation	2.0
CHRM 1010	Culinary Math	2.0
CHRM 1020	Sanitation~ <sup>Ⓢ</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
CHRM 1210	Baking Basics	4.0
CHRM 1220	Pastries	3.0
CHRM 1250	Artisan Bread	4.0
CHRM 1260	Cakes	4.0
CHRM 1550	Customer Service	1.0
CHRM 1990	Skills Demonstration for Bakers	.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. Students seeking acceptance into first-year cohorts must possess a career certificate.

### **Requirements for Culinary Arts Foundations career certificate (29.5 credit hrs.)**

#### **Courses**

CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation~ <sup>Ⓢ</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
CHRM 1035	Culinary Foundations 2: Cuisines	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5
	Humanities elective	4.5
MATH	Elective	4.5

## **Hospitality and Restaurant Leadership (CHRAS)**

**Award:** Associate in applied science degree

**Program location:** Fort Omaha Campus

Upon completion of all requirements for any of the transfer options included in this degree, students can apply to the University of Nebraska–Lincoln to pursue a Bachelor of Science in Hospitality, Restaurant, and Tourism Management.

### **Graduation Requirements**

General education	27.0
Major requirements	50.0
Course track offerings	22.5–26.0
<b>Total credit hours required</b>	<b>99.5–103.5</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 CA Technical Writing and ENGL 1240 CA Oral and Written Report for Culinaricians are recommended. Transfer students select ENGL 1010 and ENGL 1020.

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

Transfer students select ECON 1000 or 1100 for social sciences requirement.

#### **Quantitative/numeracy skills**

MATH 1220	Business Mathematics <sup>~</sup>	4.5
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Transfer students select MATH 1420

#### **Other**

HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5

## **Major requirements for Hospitality and Restaurant Leadership (50.0 credit hrs.)**

### **Courses**

CHRM 1000	CHRM Orientation	2.0
CHRM 1010	Culinary Math	2.0
CHRM 1020	Sanitation <sup>~</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
CHRM 1550	Customer Service	1.0
CHRM 2410	Marketing and Industry Perspectives	4.5
CHRM 2460	Cost Management	4.5
CHRM 2465	Food Service Financial Management	4.5
CHRM 2470	Hospitality Supervision <sup>~</sup>	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2480	Purchasing	4.5
CHRM 2550	Table Service	3.0
CHRM 2560	Beverage Management	3.0
CHRM 2980	Student Manager	3.0
CHRM 2989	Hospitality Management Intern OR	3.0
CHRM 2910	Restaurant Consulting Practicum	3.0

## **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. 172)

### **Hospitality Entrepreneurship (22.5 credit hrs.)**

Hospitality and Restaurant Leadership - Hospitality Entrepreneurship (CHBA1) (p. 173)

## **Hospitality and Restaurant Leadership - Food and Event Management (CHFA1)**

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.

### **General education requirements**

See General education requirements for Hospitality and Restaurant Leadership (p. 171)

### **Major requirements for Hospitality and Restaurant Leadership**

See Major requirements for Hospitality and Restaurant Leadership (p. 171)

### **Requirements for Hospitality and Restaurant Leadership - Food and Event Management (23.0-26.0 credit hrs.)**

#### **Courses**

BSAD 1100	Business Law I <sup>Ⓞ</sup>	4.5
CHRM 1035	Culinary Foundations 2: Cuisines OR	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5
CHRM 2610	Event Planning	3.0
CHRM 2650	Banquet Service	3.0

#### **Electives - select 4.0 to 7.0 credit hours from the following:**

CHRM 1210	Baking Basics	4.0
CHRM 1120	Soup and Sauce Basics	4.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1220	Pastries	3.0
CHRM 1250	Artisan Bread	4.0
CHRM 1260	Cakes	4.0
CHRM 2970	Culinary Competition	3.0
CHRM 297A	Competition Training Camp	1.0
CHRM 2900	Special Topics in Culinary Arts	variable
HLSM 2510	Olericulture	3.0
BSAD 1000	Introduction to Business <sup>Ⓞ</sup>	4.5
BSAD 1010	Principles of Marketing <sup>Ⓞ</sup>	4.5
ENTR 1050	Introduction to Entrepreneurship <sup>Ⓞ</sup> Ⓜ	4.5

CHRM 1220, CHRM 1250, CHRM 1260: CHRM 1210 prerequisite

BSAD 1010: BSAD 1000 prerequisite

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.

## **Suggested Course Guide – 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 Orientation	2.0
CHRM 1020	Sanitation <sup>Ⓞ</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics <sup>Ⓞ</sup>	4.5

#### **Second quarter**

CHRM 1010	Culinary Math	2.0
CHRM 1035	Culinary Foundations 2: Cuisines OR	4.0
CHRM 1210	Baking Basics	4.0
HMRL 1010	Human Relations Skills <sup>Ⓞ</sup> Ⓜ	4.5
INFO 1001	Information Systems and Literacy <sup>Ⓞ</sup> Ⓜ	4.5

#### **Third quarter**

CHRM 1550	Customer Service	1.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5

#### **Fourth quarter**

CHRM 2480	Purchasing English level I	4.5 4.5
	Humanities	4.5

### **Second Year**

#### **Fifth quarter**

CHRM 2410	Marketing and Industry Perspectives	4.5
CHRM 2465	Food Service Financial Management	4.5
CHRM 2470	Hospitality Supervision <sup>Ⓞ</sup>	4.5

#### **Sixth quarter**

BSAD 1100	Business Law I <sup>Ⓞ</sup>	4.5
CHRM 2560	Beverage Management	3.0
CHRM 2610	Event Planning Elective	3.0 3.0

#### **Seventh quarter**

CHRM 2475	Leadership Principles	4.5
CHRM 2550	Table Service	3.0
CHRM 2650	Banquet Service	3.0

#### **Eighth quarter**

CHRM 2910	Restaurant Consulting Practicum OR	3.0
CHRM 2989	Hospitality Management Intern	3.0
CHRM 2980	Student Manager English level II Elective	3.0 4.5 up to 4.0

## Hospitality and Restaurant Leadership - Hospitality Entrepreneurship (CHBA1)

This degree option provides the entrepreneurial education for students wanting to own and operate businesses in the hospitality industry.

### General education requirements

See General education requirements for Hospitality and Restaurant Leadership (p. 171)

### Major requirements for Hospitality and Restaurant Leadership

See Major requirements for Hospitality and Restaurant Leadership (p. 171)

### Requirements for Hospitality and Restaurant Leadership - Hospitality Entrepreneurship (22.5 credit hrs.)

#### Courses

ENTR 1050	Introduction to Entrepreneurship <sup>~</sup> Ⓞ	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	4.5

### Suggested Course Guide – 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 Orientation	2.0
CHRM 1020	Sanitation <sup>~</sup>	2.0
CHRM 1030	Culinary Foundations 1: Skills	4.0
MATH 1220	Business Mathematics <sup>~</sup>	4.5

##### Second quarter

CHRM 1010	Culinary Math	2.0
ENTR 1050	Introduction to Entrepreneurship <sup>~</sup> Ⓞ	4.5
HMRL 1010	Human Relations Skills <sup>~</sup> Ⓞ	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓞ	4.5

##### Third quarter

CHRM 1550	Customer Service	1.0
CHRM 2460	Cost Management	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5

##### Fourth quarter

CHRM 2480	Purchasing	4.5
	English level I	4.5
	Humanities	4.5

### Second Year

#### Fifth quarter

CHRM 2410	Marketing and Industry Perspectives	4.5
CHRM 2465	Food Service Financial Management	4.5
CHRM 2470	Hospitality Supervision <sup>~</sup>	4.5

#### Sixth quarter

CHRM 2550	Table Service	3.0
CHRM 2560	Beverage Management	3.0
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	4.5

#### Seventh quarter

CHRM 2475	Leadership Principles	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	4.5

#### Eighth quarter

CHRM 2910	Restaurant Consulting Practicum	3.0
	OR	
CHRM 2989	Hospitality Management Intern	3.0
CHRM 2980	Student Manager	3.0
	English level II	4.5

## ManageFirst (CHMCC)

**Award:** Career certificate

**Program location:** Fort Omaha Campus

This career certificate allows 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, 800 hours of industry work must be logged and a separate application process completed. Contact 402-457-2510 for complete details.

### Requirements for ManageFirst career certificate (25.5 credit hrs.)

#### Courses

CHRM 1020	Sanitation <sup>~</sup>	2.0
CHRM 1550	Customer Service	1.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2470	Hospitality Supervision <sup>~</sup>	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2480	Purchasing	4.5

## 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
<b>Total credit hours required</b>	<b>97.0-103.0</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### **Humanities/Social Sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/Numeracy Skills**

MATH 1240	Applied Mathematics	4.5
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#### **Other**

HMRL 1010	Human Relations Skills 	4.5
INFO 1001	Information Systems and Literacy 	4.5

### **Major requirements for Horticulture, Land Systems, and Management (40.0 credit hrs.)**

#### **Courses**

BSAD 1000	Introduction to Business 	4.5
HLSM 1000	Horticulture, Land Systems, and Management Orientation	1.0
HLSM 1010	Introduction to Horticulture	6.0
HLSM 1020	Introduction to Aquaponics	3.0
HLSM 1100	Perennials: Culture and Identification	3.0
BIOS 1400	Introduction to Botany	4.5
HLSM 2410	Seed Propagation	3.0
HLSM 2415	Vegetative Propagation	3.0
HLSM 2420	Plant Pathology	4.5
HLSM 2425	Entomology	4.5
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. 176)

#### **Grounds Management (30.0 credit hrs.)**

Grounds Management (HLMGO) (p. 176)

#### **Horticulture Management (36.0 credit hrs.)**

Horticulture Management (HLMHO) (p. 177)

#### **Landscape Design (30.0 credit hrs.)**

Landscape Design (HLMLO) (p. 177)

#### **Small Market Farming (30.0 credit hrs.)**

Small Market Farming (HLMSO) (p. 178)

**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
<b>Total credit hours required</b>	<b>99.5</b>

**General education requirements**

See General education requirements for Horticulture, Land Systems, and Management (p. 175)

**Major requirements for Horticulture, Land Systems, and Management**

See Major requirements for Horticulture, Land Systems, and Management (p. 175)

**Option requirements for Floriculture (32.5 credit hrs.)****Courses**

BSAD 1010	Principles of Marketing	4.5
HLSM 1030	Introduction to Floral Design	3.0
HLSM 1160	Culinary Herb Cultivation	3.0
HLSM 1210	Floral Design: Specialty Events and Occasions	3.0
HLSM 1220	Floral Design: Tablescape and Hospitality	3.0
HLSM 1300	History of Design	3.0
HLSM 1310	Introduction to Design	3.0
HLSM 2200	Floral Design: Weddings	3.0
HLSM 2210	Interiorscaping	4.0
HLSM 2610	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
<b>Total credit hours required</b>	<b>97.0</b>

**General education requirements**

See General education requirements for Horticulture, Land Systems, and Management (p. 175)

**Major requirements Horticulture, Land Systems, and Management**

See Major requirements for Horticulture, Land Systems, and Management (p. 175)

**Option requirements for Grounds Management (30.0 credit hrs.)****Courses**

HLSM 1110	Turfgrass Management	3.0
HLSM 1130	Deciduous Trees: Culture and Identification	3.0
HLSM 1140	Coniferous Trees: Culture and Identification	3.0
HLSM 1150	Shrubs: Culture and Identification	3.0
HLSM 1310	Introduction to Design	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2310	Construction Documents and Details	3.0
HLSM 2320	Grounds Construction and Maintenance	3.0
HLSM 2400	Site Systems	3.0
HLSM 2620	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
<b>Total credit hours required</b>	<b>103.0</b>

### **General education requirements**

See General education requirements for Horticulture, Land Systems, and Management (p. 175)

### **Major requirements for Horticulture, Land Systems, and Management**

See Major requirements for Horticulture, Land Systems, and Management (p. 175)

### **Option Requirements for Horticulture Management (36.0 credit hrs.)**

#### **Courses**

HLSM 1110	Turfgrass Management	3.0
HLSM 1120	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	Shrubs: Culture and Identification	3.0
HLSM 1160	Culinary Herb Cultivation	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2400	Site Systems	3.0
HLSM 2500	Small Market Farming	3.0
HLSM 2510	Olericulture	3.0
HLSM 2610	Floriculture Production	3.0
HLSM 2620	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
<b>Total credit hours required</b>	<b>97.0</b>

### **General education requirements**

See General education requirements for Horticulture, Land Systems, and Management (p. 175)

### **Major requirements for Horticulture, Land Systems, and Management**

See Major requirements for Horticulture, Land Systems, and Management (p. 175)

### **Option requirements for Landscape Design (30.0 credit hrs.)**

#### **Courses**

HLSM 1130	Deciduous Trees: Culture and Identification	3.0
HLSM 1140	Coniferous Trees: Culture and Identification	3.0
HLSM 1150	Shrubs: Culture and Identification	3.0
HLSM 1300	History of Design	3.0
HLSM 1310	Introduction to Design	3.0
HLSM 1320	Landscape Graphics	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2300	Advanced Design	3.0
HLSM 2310	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 Campus

This option focuses on the management and production, handling, sale, and use of plants.

#### **Graduation Requirements**

General education	27.0
Major requirements	40.0
Option requirements	30.0
<b>Total credit hours required</b>	<b>97.0</b>

#### **General education requirements**

See General education requirements for Horticulture, Land Systems, and Management (p. 175)

#### **Major requirements for Horticulture, Land Systems, and Management**

See Major education requirements for Horticulture, Land Systems, and Management (p. 175)

#### **Option requirements for Small Market Farming (30.0 credit hrs.)**

##### **Courses**

HLSM 1120	Pomology: Culture and Identification	3.0
HLSM 1160	Culinary Herb Cultivation	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2340	Introduction to Regional Planning	3.0
HLSM 2400	Site Systems	3.0
HLSM 2500	Small Market Farming	3.0
HLSM 2510	Olericulture	3.0
HLSM 2520	Introduction to Small Animal Husbandry	3.0
HLSM 2610	Floriculture Production	3.0
HLSM 2620	Nursery and Garden Center Practices	3.0

### **Horticulture (HLHCE)**

**Award:** Certificate of achievement

**Program location:** Fort Omaha Campus

This option is a certificate of achievement that provides students the opportunity to move quickly into the industry and begin working at an entry level.

#### **Graduation Requirements**

General education	13.5
Major requirements	36.0
<b>Total credit hours required</b>	<b>49.5</b>

#### **General education requirements (13.5 credit hrs.)**

##### **Communications**

English level I	4.5
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See Communications course options (p. 38)

##### **Quantitative/Numeracy Skills**

MATH 1240	Applied Mathematics	4.5
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##### **Natural Sciences**

BIOS 1400	Introduction to Botany	4.5
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#### **Major requirements for Horticulture (36.0 credit hrs.)**

##### **Courses**

HLSM 1010	Introduction to Horticulture	6.0
HLSM 1100	Perennials: Culture and Identification	3.0
HLSM 1110	Turfgrass Management	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2410	Seed Propagation	3.0
HLSM 2415	Vegetative Propagation	3.0
HLSM 2420	Plant Pathology	4.5
HLSM 2425	Entomology	4.5
HLSM 2510	Olericulture	3.0
HLSM 2910	Internship	3.0

**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	Introduction to Horticulture	6.0
HLSM 1120	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	Shrubs: Culture and Identification	3.0
HLSM 2420	Plant Pathology	4.5
HLSM 2425	Entomology	4.5

**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	Introduction to Floral Design	3.0
HLSM 1210	Floral Design: Specialty Events and Occasions	3.0
HLSM 1220	Floral Design: Tablescape and Hospitality	3.0
HLSM 2200	Floral Design: Weddings	3.0
HLSM 2210	Interiorscaping	4.0
HLSM 2610	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	Deciduous Trees: Culture and Identification	3.0
HLSM 1140	Coniferous Trees: Culture and Identification	3.0
HLSM 1150	Shrubs: Culture and Identification	3.0
HLSM 1310	Introduction to Design	3.0
HLSM 1320	Landscape Graphics	3.0
HLSM 2300	Advanced Design	3.0
HLSM 2310	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	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	Shrubs: Culture and Identification	3.0
HLSM 1400	Natural Systems and Sustainability	3.0
HLSM 2400	Site Systems	3.0
HLSM 2610	Floriculture Production	3.0
HLSM 2620	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	Introduction to Horticulture	6.0
HLSM 2410	Seed Propagation	3.0
HLSM 2415	Vegetative Propagation	3.0
HLSM 2420	Plant Pathology	4.5
HLSM 2425	Entomology	4.5
HLSM 2610	Floriculture Production	3.0
HLSM 2620	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	4.5
HLSM 2425	Entomology	4.5
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-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. 346)
- English-as-a-Second-Language (ESLX p. 349)
- Reading and Learning Skills (RDLS p. 403)
- 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

# FOUNDATIONS FOR ACADEMIC SUCCESS & COMMUNITY SERVICES

As of June 1, 2013, programs and courses previously in the Foundations for Academic Success and Community Services department are being redeployed to these dean areas:

- Early Childhood Education (ECED (p. 336) to Social Services (p. 285)
- English-as-a-Second-Language (ESLX (p. 349) to English, English-as-a-Second-Language, and Reading (p. 181)
- Human Services (HMSV (p. 367) to Business and Human Services (p. 130)
- Reading and Learning (RDLS (p. 403) to English, English-as-a-Second-Language, and Reading (p. 181)

# GENERAL STUDIES

## **Degree: Associate in Applied Science**

General Studies

## **Certificates of Achievement**

General Studies

## **Career Certificates**

### **General Studies: Certificates of Achievement**

Art – Entrepreneurship for the Artist (p. 205)

Bookkeeping (p. 134)

Business Management – Not-for-Profit Management (p. 144)

Civil Engineering – Civil Engineering Technology (p. 82)

Industrial and Commercial Trades - Healthy Homes (p. 107)

- Lead Abatement (p. 108)
- Residential Energy Management (p. 108)

Interior Design Entrepreneurship (p. 221)

Video/Audio Communications Arts – Screenwriting (p. 230)

Video/Audio Communications Arts – Sound Recording (p. 230)

### **General Studies: Career Certificates**

CDL-A Truck Driving (p. 94)

Customer Service Management (p. 145)

Customer Service Representative (p. 279)

Early Childhood Family/Group Specialist (p. 290)

Early Childhood Sign Language (p. 290)

Early Childhood Spanish (p. 289)

Electrical Mechanical Systems (p. 110)

Global Perspectives (p. 219)

Home Energy Professional (Weatherization) (p. 90)

Lead Abatement Professional (p. 111)

Narrative Structure and Visualization (p. 217)

Not-for-Profit Management (p. 148)

Professional Communication (p. 219)

Professional Skills (p. 283)

Project Management (p. 240)

Soil Remediation (p. 112)

Solar Air Systems (p. 91)

Solar Electric Systems (p. 98)

Solar Heating Systems (p. 101)

Solar Hydronics Systems (p. 119)

Solar Technology (p. 91)

Solar Water Systems (p. 116)

Spanish for Business (p. 224)

Spanish for Healthcare (p. 224)

## 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
<b>Total credit hours required</b>	<b>96.0–99.0</b>

### General education requirements (42.0 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 four-year degrees, select the transfer options.

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### Social sciences

Social sciences	4.5
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See Social Sciences course options (p. 38) and/or Transfer course options (p. 295)

#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/Numeracy Skills course options (p. 40) and/or Transfer course options (p. 295)

#### Natural sciences

Natural sciences	6.0-7.5
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See Natural Sciences course options (p. 40) and/or Transfer course options (p. 295)

#### Humanities

Humanities	4.5
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See Humanities course options (p. 38) and/or Transfer course options (p. 295)

#### Other

HMRL 1010	Human Relations Skills	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. See below Option requirements.

### Electives for General Studies (18.0 credit hrs.)

#### Courses

Select 18.0 credit hours.

### Option requirements for General Studies

Listed below are general studies degree options that allow students to tailor a specific interest into an associate degree program.

#### 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, EIMA, GCAD, 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](http://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.

<b>General studies transfer agreements</b>	<b>Four-year institution</b>
Pre-Criminal Justice (PUCJO)	University of Nebraska at Omaha
Pre-Health Related Business (PSHBO)	Clarkson College
Pre-Secondary Education	
Industrial Technology Endorsement (PSITO)	Wayne State College
Industrial Technology Endorsement (ITAS1)	University of Nebraska–Lincoln
Pre-Social Work (PSOWO)	Nebraska Wesleyan University - Omaha Advantage

# 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

### Degree: Associate in Applied Science

Criminal Justice

Corrections

Generalist

Homeland Security

Law Enforcement

Network Security and Computer Forensics

Private Security

### Online Degree: Associate in Applied Science

Criminal Justice

Corrections

Generalist

Homeland Security

Law Enforcement

Network Security and Computer Forensics

Private Security

### Career Certificate:

Community-Based Corrections

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

## **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, homeland security, private security, and network security/computer forensics. 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, county detention officer, correctional officer, 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, and 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	45.0
Course track offerings	26.0–27.0
<b>Total credit hours required</b>	<b>98.0–99.0</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### **Social Sciences**

SOCI 1010	Introduction to Sociology <sup>~</sup> ☉	4.5
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#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

MATH 1220 Business Math is strongly recommended.

#### **Other**

HMRL 1010	Human Relations Skills <sup>~</sup> ☉	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> ☉	4.5

### **Major requirements for Criminal Justice (45.0 credit hrs.)**

#### **Courses**

CRIM 1010	Introduction to Criminal Justice <sup>~</sup> ☉	4.5
CRIM 1140	Reporting Techniques for Criminal Justice <sup>~</sup> ☉	4.5
CRIM 2000	Criminal Law <sup>~</sup> ☉	4.5
CRIM 2050	Principles of Interviewing and Interrogation <sup>~</sup> ☉	4.5
CRIM 2150	Contemporary Issues in Criminal Justice <sup>~</sup> ☉	4.5
CRIM 2260	Criminal Investigation <sup>~</sup> ☉	4.5
CRIM 2310	Rules of Evidence <sup>~</sup> ☉	4.5
CRIM 2330	Introduction to Forensic Crime Scene Investigation <sup>~</sup> ☉	4.5
POLS 2060	The Constitution <sup>~</sup> ☉	4.5
PSYC 1010	Introduction to Psychology <sup>~</sup> ☉☉	4.5

Upon successful completion of a P.O.S.T. accredited academy or basic police academy course accredited by the Nebraska Law Enforcement Training Center, a maximum of 18.0 credit hours may be granted upon petition for CRIM 1010, CRIM 2000, CRIM 2030, and CRIM 2260.

### **Option requirements for Criminal Justice (26.0-27.0 credit hrs.)**

The Criminal Justice degree options are available in the areas listed below. See the following 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 (27.0 credit hrs.)**

Criminal Justice - Corrections (CJCNO) (p. 189)

#### **Generalist (27.0 credit hrs.)**

Criminal Justice - Generalist (CJGNO) (p. 189)

#### **Homeland Security (27.0 credit hrs.)**

Criminal Justice - Homeland Security (CJHSO) (p. 189)

#### **Law Enforcement (27.0 credit hrs.)**

Criminal Justice - Law Enforcement (CJLEO) (p. 189)

#### **Network Security and Computer Forensics (27.0 credit hrs.)**

Criminal Justice - Network Security and Computer Forensics (CJNSO) (p. 190)

#### **Private Security (27.0 credit hrs.)**

Criminal Justice - Private Security (CJPSO) (p. 190)

**Criminal Justice - Corrections (CJCNO)****General education requirements**

See General education requirements for Criminal Justice (p. 188)

**Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

**Option requirements for Criminal Justice - Corrections (27.0 credit hrs.)****Courses**

CRIM 1020	Introduction to Corrections~☺	4.5
CRIM 2010	Introduction to Probation and Parole~☺	4.5
CRIM 2020	Legal Issues in Corrections~☺	4.5
CRIM 2120	Community-Based Corrections~☺	4.5
CRIM 2220	Correctional Client~☺	4.5
CRIM 2320	Correctional Facility~☺	4.5

**Criminal Justice - Generalist (CJGNO)****General education requirements**

See General education requirements for Criminal Justice (p. 188)

**Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

**Option requirements for Criminal Justice - Generalist (26.0 credit hrs.)****Courses**

CRIM 1020	Introduction to Corrections~☺	4.5
CRIM 1030	Courts and the Judicial Process~☺	4.5
HMSV 1110	Interpersonal Communication Skills~☺	3.5
POLS 2050	American National Government~☺	4.5
SOCI 2310	Criminology~☺	4.5
SOCI 2311	Juvenile Justice~☺	4.5

**Criminal Justice - Homeland Security (CJHSO)****General education requirements**

See General education requirements for Criminal Justice (p. 188)

**Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

**Option requirements for Criminal Justice - Homeland Security (27.0 credit hrs.)****Courses**

CRIM 2400	Introduction to Homeland Security~☺	4.5
CRIM 2410	Homeland Security Transportation~☺	4.5
CRIM 2420	International Crime and Terrorism~☺	4.5
CRIM 2430	Emergency Response to Terrorism~☺	4.5
CRIM 2440	Introduction to Bioterrorism~☺	4.5
CRIM 2450	Global Terrorism~☺	4.5

**Criminal Justice - Law Enforcement (CJLEO)****General education requirements**

See General education requirements for Criminal Justice (p. 188)

**Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

**Option requirements for Criminal Justice - Law Enforcement (27.0 credit hrs.)****Courses**

CRIM 1030	Courts and the Judicial Process~☺	4.5
CRIM 2030	Police and Society~☺	4.5
CRIM 2190	Police Field Services~☺	4.5
CRIM 2300	Community Relations~☺	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
SOCI 2060	Multicultural Issues~☺	4.5

## **Criminal Justice - Network Security and Computer Forensics (CJNSO)**

### **General education requirements**

See General education requirements for Criminal Justice (p. 188)

### **Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

### **Option requirements for Criminal Justice - Network Security and Computer Forensics (27.0 credit hrs.)**

#### **Courses**

INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2805	Network and Information Security Basics <sup>~</sup>	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing <sup>~</sup>	4.5
INFO 2808	Boundary Protection <sup>~</sup>	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics <sup>~</sup>	4.5
INFO 2810	Security Capstone <sup>~</sup>	4.5

## **Community-Based Corrections (CJCD1)**

**Award:** Career certificate

**Program location:** College wide

This career certificate provides students with a background for entering the field of corrections.

### **Requirements for Community-Based Corrections career certificate (27.0 credit hrs.)**

#### **Courses**

CRIM 1010	Introduction to Criminal Justice <sup>~</sup>	4.5
CRIM 1020	Introduction to Corrections <sup>~</sup>	4.5
CRIM 2010	Introduction to Probation and Parole <sup>~</sup>	4.5
CRIM 2020	Legal Issues in Corrections <sup>~</sup>	4.5
PSYC 1010	Introduction to Psychology <sup>~</sup>	4.5
SOCI 1010	Introduction to Sociology <sup>~</sup>	4.5

## **Criminal Justice - Private Security (CJPSO)**

### **General education requirements**

See General education requirements for Criminal Justice (p. 188)

### **Major requirements for Criminal Justice**

See Major requirements for Criminal Justice (p. 188)

### **Option requirements for Criminal Justice - Private Security (27.0 credit hrs.)**

#### **Courses**

CRIM 2500	Introduction to Private Security Management <sup>~</sup>	4.5
CRIM 2510	Private Security Law <sup>~</sup>	4.5
CRIM 2520	Loss Prevention <sup>~</sup>	4.5
CRIM 2530	Commercial Security <sup>~</sup>	4.5
CRIM 2540	Fire and Alarm Security <sup>~</sup>	4.5
CRIM 2550	Principles of Security Safety <sup>~</sup>	4.5

## 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
<b>Total credit hours required</b>	<b>99.0</b>

### General education requirements (27.0 credit hrs.)

#### **Communications**

ENGL 1220	Technical Writing <sup>~</sup> <sup>Ⓢ</sup>	4.5
ENGL 1240	Oral and Written Reports <sup>~</sup> <sup>Ⓢ</sup>	4.5
SPCH 1110	Public Speaking <sup>~</sup> <sup>Ⓢ</sup> <sup>Ⓣ</sup>	4.5

#### **Other**

HMRL 1010	Human Relations Skills <sup>~</sup> <sup>Ⓢ</sup> <sup>Ⓣ</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> <sup>Ⓢ</sup> <sup>Ⓣ</sup>	4.5

#### **Quantitative/numeracy skills**

MATH 1240	Applied Mathematics	4.5
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### Major requirements for Fire Science Technology (72.0 credit hrs.)

#### **Courses**

FIST 1000	Principles of Emergency Services <sup>~</sup> <sup>Ⓢ</sup>	3.0
FIST 1020	Fire Behavior and Combustion	4.0
FIST 1030	Hazardous Materials Chemistry	3.0
FIST 1040	Principles of Property and Casualty Insurance <sup>~</sup> <sup>Ⓢ</sup>	3.0
FIST 1050	Building Construction for Fire Protection	3.0
FIST 1060	Occupational Safety and Health for Emergency Services <sup>~</sup> <sup>Ⓢ</sup>	3.0
FIST 1070	Fire Protection Systems	3.0
FIST 1080	Fire Protection Hydraulics and Water Supply	4.0
FIST 1090	Firefighter I	10.0
FIST 2000	Incident Command System	3.0
FIST 2010	Fire Investigation I	3.0
FIST 2011	Fire Investigation II	3.0
FIST 2020	Fire Prevention, Inspection, and Codes	4.0
FIST 2030	Legal Aspects of Emergency Services	3.0
FIST 2040	Principles of Fire & Emergency Services Safety & Survival	3.0
FIST 2050	Introduction to Fire and Emergency Services Administration	3.0
FIST 2060	Strategy and Tactics	4.0
FIST 2070	Hazardous Materials Operations	3.5
FIST 2090	Firefighter II	5.5
EMSP 1010	Heartsaver First Aid with CPR and AED	1.0

## 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
<b>Total credit hours required</b>	<b>131.0–132.0</b>

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 the website at [www.mccneb.edu/healthcareers](http://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 I	4.5
ENGL 1020	English Composition II	4.5

#### Social sciences

PSYC 1010	Introduction to Psychology	4.5
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#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra	4.5
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#### Natural sciences

BIOS 2150	Microbiology	6.0
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BIOS 2150: Additional prerequisite(s) may be required.

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

## Major requirements for Respiratory Care Technology (76.5 credit hrs.)

### Courses

RESP 1000	Orientation to Respiratory Care	3.0
RESP 1010	Introduction to Respiratory Care	4.5
RESP 1020	Cardiopulmonary Anatomy and Physiology	4.5
RESP 1030	Respiratory Care Procedures I	4.5
RESP 1031	Current Concepts I	2.0
RESP 1040	Respiratory Care Procedures II	4.5
RESP 1041	Current Concepts II	2.0
RESP 1042	Pharmacology for Respiratory Care	3.0
RESP 1991	Clinical Practicum I	5.5
RESP 1992	Clinical Practicum II	5.5
RESP 1993	Clinical Practicum III	5.5
RESP 2100	Advanced Respiratory Care	4.5
RESP 2101	Current Concepts III	2.0
RESP 2120	Cardiology and Hemodynamics	3.0
RESP 2121	Current Concepts IV	2.0
RESP 2122	Pediatric and Neonatal Respiratory Care	3.0
RESP 2131	Current Concepts V	2.0
RESP 2132	Respiratory Care Seminar	4.5
RESP 2994	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
	OR	
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 1310	Survey of Human Anatomy and Physiology	5.0
	OR	
BIOS 2320	Human Anatomy and Physiology II	6.0
CHEM 1010	College Chemistry	6.0
PHYS 1010	Applied Physics	4.5

## Suggested Course Guide

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	6.0
	OR	
BIOS 2310	Human Anatomy and Physiology I	6.0
CHEM 1010	College Chemistry	6.0
MATH 1310	Intermediate Algebra	4.5

#### Second quarter (Fall)

BIOS 1310	Survey of Human Anatomy and Physiology	5.0
	OR	
BIOS 2320	Human Anatomy and Physiology II	6.0
ENGL 1010	English Composition I	4.5
PHYS 1010	Applied Physics	4.5
RESP 1000	Orientation to Respiratory Care	3.0

#### Third quarter (Winter)

INFO 1001	Information Systems and Literacy	4.5
PSYC 1010	Introduction to Psychology	4.5
RESP 1010	Introduction to Respiratory Care	4.5
RESP 1020	Cardiopulmonary Anatomy and Physiology	4.5

#### Fourth quarter (Spring)

BIOS 2150	Microbiology	6.0
RESP 1030	Respiratory Care Procedures I	4.5
RESP 1031	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	Current Concepts II	2.0
RESP 1042	Pharmacology for Respiratory Care	3.0
RESP 1992	Clinical Practicum II	5.5

#### Sixth quarter (Fall)

HMRL 1010	Human Relations Skills	4.5
RESP 1993	Clinical Practicum III	5.5
RESP 2100	Advanced Respiratory Care	4.5
RESP 2101	Current Concepts III	2.0

#### Seventh quarter (Winter)

RESP 2120	Cardiology and Hemodynamics	3.0
RESP 2121	Current Concepts IV	2.0
RESP 2122	Pediatric and Neonatal Respiratory Care	3.0
RESP 2994	Clinical Practicum IV	5.5

#### Eighth quarter (Spring)

ENGL 1020	English Composition II	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
<b>Total credit hours required</b>	<b>81.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1210 Applied Communications 4.5

#### **Social sciences**

Select one course from the following:

PSYC 1000 Psychology for Everyday Living 4.5

PSYC 1010 Introduction to Psychology 4.5

#### **Quantitative/numeracy skills**

Select one course from the following:

Any 1000-level of Mathematics 4.5

MATH 1240 Applied Mathematics 4.5

MATH 1310 Intermediate Algebra 4.5

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	Introduction to Dental Assisting	2.0
DENT 1020	Dental Office Procedures	3.0
DENT 1100	Dental Anatomy	4.0
DENT 1120	Related Anatomy	2.5
DENT 1140	Dental Pathology and Microbiology	2.5
DENT 1160	Dental Pharmacology	2.0
DENT 1180	Nutrition and Preventive Dentistry	3.0
DENT 1200	Dental Materials	5.5
DENT 1230	Dental Specialties I	4.0
DENT 1240	Dental Specialties II	2.0
DENT 1260	Infection Control	3.0
DENT 1280	Dental Office Emergencies	2.5
DENT 1310	Dental Radiology I	2.5

DENT 1320	Dental Radiology II	4.0
DENT 1350	Chairside Assisting I	4.0
DENT 1360	Chairside Assisting II	4.0
DENT 1370	Chairside Assisting III	4.0
DENT 1991	Clinical Experience I	2.5
DENT 1992	Clinical Experience II	8.0
DENT 1993	Clinical Seminar	2.0
EMSP 1000	Cardiopulmonary Resuscitation for Healthcare Providers	1.0

### **Suggested Course Guide**

Below is a suggested guide for students planning careers in dental assisting after one year of full-time study.

#### **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 1350	Chairside Assisting I	4.0
ENGL 1210	Applied Communications	4.5
EMSP 1000	Cardiopulmonary Resuscitation for Healthcare Providers	1.0

##### **Second quarter (Winter)**

DENT 1180	Nutrition and Preventive Dentistry	3.0
DENT 1200	Dental Materials	5.5
DENT 1230	Dental Specialties I	4.0
DENT 1310	Dental Radiology I	2.5
DENT 1360	Chairside Assisting II	4.0

##### **Third quarter (Spring)**

DENT 1160	Dental Pharmacology	2.0
DENT 1240	Dental Specialties II	2.0
DENT 1280	Dental Office Emergencies	2.5
DENT 1320	Dental Radiology II	4.0
DENT 1370	Chairside Assisting III	4.0
DENT 1991	Clinical Experience I	2.5
	Mathematics	4.5

##### **Fourth quarter (Summer)**

DENT 1020	Dental Office Procedures	3.0
DENT 1992	Clinical Experience II	8.0
DENT 1993	Clinical Seminar	2.0
	Social sciences	4.5

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 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
<b>Total credit hours required</b>	<b>94.5</b>

### **General education requirements (13.5 credit hrs.)**

#### ***Communications***

ENGL 1010	English Composition I	4.5
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#### ***Humanities/social sciences***

	Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### ***Quantitative/numeracy skills***

MATH 1310	Intermediate Algebra	4.5
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### **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	6.5
EMSP 1124	Paramedic Part 3 of 4	12.0
EMSP 1125	Paramedic Clinical/Field Part 2 of 3	6.5
EMSP 1126	Paramedic Part 4 of 4	12.0
EMSP 1127	Paramedic Clinical/Field Part 3 of 3	7.0

Students who successfully complete the Paramedicine program can earn the Professional Health Studies degree by fulfilling 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**

General education	13.5
Additional requirements	6.0
Major requirements	70.0
<b>Total credit hours required</b>	<b>89.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communication**

Select one course from the following:

ENGL 1010	English Composition I	4.5
ENGL 1210	Applied Communications	4.5

ENGL 1010 should be taken by students seeking the Professional Health Studies option.

#### **Social sciences**

PSYC 1120	Human Growth and Development	4.5
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#### **Quantitative/numeracy skills**

Select one course from the following:

MATH 1240	Applied Mathematics	4.5
MATH 1310	Intermediate Algebra	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	Survey of Human Anatomy and Physiology	5.0
EMSP 1010	Heartsaver First Aid with CPR and AED	1.0

### **Major requirements for Medical Assisting (70.0 credit hrs.)**

#### **Courses**

HIMS 1150	Introduction to Medical Law and Ethics	4.5
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 Allied Health Professionals I	4.5
MDST 2120	Pharmacology for Medical Assistants and Allied Health Professionals II	4.5
MDST 2980	MDST Externship	18.5
WORK 1400	Employability Skills	1.0

The Medical Assisting program is accredited by the Accreditation of Allied Health Education Programs ([www.caahep.org](http://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
<b>Total credit hours required</b>	<b>96.0-114.5</b>

\*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 I	4.5
ENGL 1020	English Composition II	4.5

### Social sciences/natural science

Natural science elective	6.0
Social sciences	4.5

See Social Sciences options (p. 38)

### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra	4.5
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### Other

HMRL 1010	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	Healthcare Careers	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1180	Disease Processes	4.5
HLTH 1050	Nutrition in the Life Cycle	4.5
HLTH 1200	Long-Term Care - CNA	6.5
HLTH 1300	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. 198)

### Paramedicine (19.5 credit hrs.)

Professional Health Studies – Paramedicine (PHPMO) (p. 198)

### General Health Studies (27.0 credit hrs.)

Professional Health Studies – General Health Studies (PHSGO) (p. 199)

### Medical Assisting (13.5 credit hrs.)

Professional Health Studies – Medical Assisting (PHSMO) (p. 199)

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
<b>Total credit hours required</b>	<b>105.5</b>

**General education requirements**

See General education requirements for Professional Health Studies (p. 197)

**Option requirements for Dental Assisting track (24.0 credit hrs.)**

Students who successfully complete the Dental Assisting certificate (p. 194) 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
<b>Total credit hours required</b>	<b>114.0</b>

**General education requirements**

See General education requirements for Professional Health Studies (p. 197)

**Additional requirements for Paramedicine track (19.5 credit hrs.)**

Students who successfully complete the Paramedicine certificate of achievement (p. 195) 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
<b>Total credit hours required</b>	<b>96.0</b>

### **General education requirements**

See General education requirements for Professional Health Studies (p. 197)

### **Major requirements for Professional Health Studies**

See Major requirements for Professional Health Studies (p. 197)

### **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
<b>Total credit hours required</b>	<b>109.0</b>

### **General education requirements**

See General education requirements for Professional Health Studies (p. 197)

### **Option requirements for Medical Assisting track (19.5 credit hrs.)**

Students who successfully complete the Medical Assisting certificate (p. 196) 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.

## 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 of 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, 404-975-5000.

### Graduation Requirements

General education	51.0
1st year (LPN) major requirements	35.0
2nd year (RN) major requirements	22.0
<b>Total credit hours required</b>	<b>108.0</b>

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	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### Social sciences

PSYC 1120	Human Growth and Development	4.5
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#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra	4.5
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#### Natural sciences

BIOS 2150	Microbiology	6.0
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 2320	Human Anatomy and Physiology II	6.0
CHEM 1010	College Chemistry	6.0

BIOS 2150, BIOS 2310: Additional prerequisite(s) may be required.

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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	Adult Nursing V	5.0
NURS 2210	Professional Role of the Nurse II	1.0
NURS 2310	Mental Health Nursing II	5.0
NURS 2410	Family Nursing II	5.0
NURS 2520	Concepts of Health Assessment and Therapeutic Interventions II	1.0

See Nursing Suggested Course Guide (p. 201)

## 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
<b>Total credit hours required</b>	<b>66.5</b>

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 English Composition I <sup>~</sup> <sup>Ⓢ</sup> 4.5

#### Quantitative/numeracy skills

MATH 1310 Intermediate Algebra <sup>~</sup> 4.5

#### Social sciences

PSYC 1120 Human Growth and Development <sup>~</sup> 4.5

#### Natural sciences

CHEM 1010 College Chemistry 6.0

BIOS 2310: Additional prerequisite(s) may be required.

### Additional requirements (12.0 credit hrs.)

#### Courses

BIOS 2310 Human Anatomy and Physiology I 6.0  
BIOS 2320 Human Anatomy and Physiology II 6.0

### Major requirements for Nursing – Practical (35.0 credit hrs.)

#### Courses

NURS 1110 Adult Nursing I 6.0  
NURS 1120 Adult Nursing II 8.0  
NURS 1130 Adult Nursing III 8.5  
NURS 1200 Professional Role of the Nurse I 1.0  
NURS 1300 Mental Health Nursing I 1.0  
NURS 1400 Family Nursing I 3.0  
NURS 1510 Concepts of Health Assessment and Therapeutic Interventions I 3.5  
NURS 1950 Pharmacology 4.0

See Nursing Suggested Course Guide (p. 201)

## Nursing Suggested Course Guide

### 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 College Chemistry 6.0  
ENGL 1010 English Composition I <sup>~</sup> <sup>Ⓢ</sup> 4.5  
MATH 1310 Intermediate Algebra <sup>~</sup> 4.5  
PSYC 1120 Human Growth and Development <sup>~</sup> 4.5

#### First quarter

BIOS 2310 Human Anatomy and Physiology I 6.0  
NURS 1110 Adult Nursing I 6.0  
NURS 1200 Professional Role of the Nurse I 1.0  
NURS 1300 Mental Health Nursing I 1.0  
NURS 1510 Concepts of Health Assessment and Therapeutic Interventions I 3.5

#### Second quarter

BIOS 2320 Human Anatomy and Physiology II 6.0  
NURS 1120 Adult Nursing II 8.0  
NURS 1950 Pharmacology 4.0

#### Third quarter

NURS 1130 Adult Nursing III 8.5  
NURS 1400 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  
INFO 1001 Information Systems and Literacy <sup>~</sup> <sup>Ⓢ</sup> 4.5

#### Fifth quarter

ENGL 1020 English Composition II <sup>~</sup> <sup>Ⓢ</sup> 4.5  
NURS 2410 Family Nursing II 5.0  
NURS 2520 Concepts of Health Assessment and Therapeutic Interventions II 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 <sup>~</sup> <sup>Ⓢ</sup> 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. 299)

## 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

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
<b>Total credit hours required</b>	<b>99.0</b>

### 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	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 295)

ARTS 1000 is recommended.

#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra	4.5
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#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Art (67.5 credit hrs.)

#### Courses

ARTS 1010	Drawing	4.5
ARTS 1020	2-D Design	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5
ARTS 2010	Life Drawing	4.5
ARTS 2020	Elementary Painting	4.5
ARTS 2030	Elementary Sculpture	4.5
ARTS 2040	Elementary Printmaking	4.5
DIMA 1110	Digital Design: Raster	4.5
	OR	
DIMA 1120	Digital Design: Vector	4.5

#### Select 18.0 credit hours from the following:

ARTS 1050	Creative Careers	4.5
ARTS 2025	Watercolor	4.5
ARTS 2050	Elementary Ceramics	4.5
ARTS 2060	Elementary Jewelry	4.5
ARTS 2120	Intermediate Painting	4.5
ARTS 2130	Intermediate Sculpture	4.5
ARTS 2140	Intermediate Printmaking	4.5
ARTS 2150	Intermediate Ceramics	4.5
ARTS 2160	Intermediate Jewelry	4.5
ARTS 2220	Art Gallery Management	4.5
ARTS 2560	Portfolio Development and Professional Practice	4.5
ARTS 2900	Special Topics in Art	variable
ARTS 2981	Internship	variable
BSAD 1250	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.

## Suggested Guide for Students Planning to Transfer

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	Drawing OR	4.5
ARTS 1020	2-D Design	4.5
ARTS 1110	Art History-Ancient to Gothic~ⓈⓉ	4.5
ENGL 1010	English Composition I~ⓈⓉ	4.5
INFO 1001	Information Systems and Literacy~ⓈⓉ	4.5

#### Second quarter (Winter)

ARTS 1010	Drawing OR	4.5
ARTS 1020	2-D Design	4.5
ARTS 1040	4-D Studio	4.5
ENGL 1020	English Composition II~ⓈⓉ Gen. Ed.	4.5 4.5

#### Third quarter (Spring)

ARTS 1030	3-D Studio	4.5
ARTS 1120	Art History-Renaissance to Modern~Ⓢ	4.5
DIMA 1110	Digital Design: Raster OR	4.5
DIMA 1120	Digital Design: Vector Gen. Ed.	4.5 4.5

### Second Year

#### Fifth quarter (Fall)

ARTS 2010	Life Drawing	4.5
ARTS 2030	Elementary Sculpture	4.5
ARTS 2040	Elementary Printmaking Gen. Ed.	4.5 4.5

#### Sixth quarter (Winter)

ARTS 2020	Elementary Painting Gen. Ed.	4.5 9.0
	Visual Arts elective	4.5

#### Seventh quarter (Spring)

	Visual Arts electives	13.5
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Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://www.mccneb.edu/articulation).

## Art (ARTCE)

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus

The Art program combines the acquisition of traditional art skills learned through conceptual and visual experience as well as electronic technologies. This certificate serves the needs of students planning 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 and Bellevue University.

### Graduation Requirements

General education	13.5
Major requirements	40.5
<b>Total credit hours required</b>	<b>54.0</b>

### General education requirements (13.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I~ⓈⓉ	4.5
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#### Humanities/social sciences

ARTS 1000	Introduction to the Visual Arts~Ⓢ	4.5
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#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra~Ⓢ	4.5
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### Major requirements for Art (40.5 credit hrs.)

#### Courses

ARTS 1010	Drawing	4.5
ARTS 1020	2-D Design	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
ARTS 1110	Art History-Ancient to Gothic~ⓈⓉ OR	4.5
ARTS 1120	Art History-Renaissance to Modern~Ⓢ	4.5
ARTS 2020	Elementary Painting	4.5
ARTS 2030	Elementary Sculpture	4.5
ARTS 2040	Elementary Printmaking	4.5

#### Select 4.5 credit hours from the following:

ARTS 1050	Creative Careers	4.5
ARTS 2010	Life Drawing	4.5
ARTS 2025	Watercolor	4.5
ARTS 2050	Elementary Ceramics	4.5
ARTS 2060	Elementary Jewelry	4.5
ARTS 2130	Intermediate Sculpture	4.5
ARTS 2220	Art Gallery Management	4.5

ART 2050: This course is at Omaha Clay Works.

## **Entrepreneurship for the Artist (AENCE)**

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus

This certificate helps artists bridge the gap between theory and practice. Coursework allows artists to develop a portfolio and learn about self-promotion and art marketing. Entrepreneurship and business courses equip students to start and manage their own art-related business. **NOTE:** *This certificate of achievement leads to a degree in general studies.*

### **Graduation Requirements**

General education	13.5
Major requirements	36.0
<b>Total credit hours required</b>	<b>49.5</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
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#### **Humanities/social sciences**

ARTS 1000	Introduction to the Visual Arts	4.5
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#### **Quantitative/numeracy skills**

	Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

### **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	Creative Careers	4.5
ARTS 2220	Art Gallery Management	4.5
ARTS 2560	Portfolio Development and Professional Practice	4.5
ARTS 2981	Internship	variable
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5

#### **Select 4.5 credit hours from the following:**

ARTS 2900	Special Topics in Art	variable
BSAD 1250	Introduction to Not-for-Profit Management	4.5
DIMA 1110	Digital Design: Raster	4.5
DIMA 1120	Digital Design: Vector	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
PHOT 1005	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.

### **Degrees: Associate in Applied Science Degree**

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 of 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
<b>Total credit hours required</b>	<b>103.5-108.0</b>

### **General education requirements (27.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### **Humanities/social sciences**

ARTS 1110	Art History-Ancient to Gothic	4.5
	OR	
ARTS 1120	Art History-Renaissance to Modern	4.5

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### **Tier I Major requirements for Design, Interactivity and Media Arts (27.0 credit hrs.)**

#### **Courses**

##### **Tier I – Students must take all courses**

ARTS 1010	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. 208)

#### **3-D Animation and Games (54.0 credit hrs.)**

Design, Interactivity and Media Arts - 3-D Animation and Games (DI3DO) (p. 209)

#### **Graphic Design (54.0 credit hrs.)**

Design, Interactivity and Media Arts - Graphic Design (DIGDO) (p. 210)

#### **Illustration (54.0 credit hrs.)**

Design, Interactivity and Media Arts - Illustration (DIILO) (p. 211)

#### **Media Generalist (54.0 credit hrs.)**

Design, Interactivity and Media Arts - Media Generalist (DIMGO) (p. 212)

#### **Motion Graphics (51.0 credit hrs.)**

Design, Interactivity and Media Arts - Motion Graphics (DIMOO) (p. 214)

#### **Web Design (49.5 credit hrs.)**

Design, Interactivity and Media Arts - Web Design (DIWDO) (p. 215)

#### **DIMA Entrepreneur (49.5 credit hrs.)**

Design, Interactivity and Media Arts - DIMA Entrepreneur (DIENO) (p. 216)

## **Design, Interactivity and Media Arts - 2-D 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 II - Required Concentration (45.0 credit hrs.)***

DIMA 1411	History of Animation	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1230	Drawing for Electronic Media	4.5
DIMA 1410	2-D Animation and Compositing I	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 1620	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
DIMA 2840	Projects Development	4.5
ARTS 2010	Life Drawing	4.5

#### ***Tier III— Electives (9.0 credit hrs.)***

Select 9.0 credit hours from the following:

DIMA 1400	Game Design Fundamentals	4.5
DIMA 1455	Introduction to Stop-Motion Animation	4.5
DIMA 1500	Web Design	4.5
DIMA 2450	Design for Motion Graphics II	4.5
DIMA 2510	Interactive 2-D Design II	4.5
DIMA 2900	Special Topics in DIMA	variable
DIMA 2981	Internship	4.5
PHOT 1005	Basic Photography I - Digital	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
ARTS 2020	Elementary Painting	4.5
ARTS 2025	Watercolor	4.5

### **Suggested Course Sequence – 2-D**

#### ***First Year***

##### ***Quarter One***

ARTS 1010	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 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
	Gen. Ed.	4.5

#### ***Second Year***

##### ***Quarter One***

DIMA 1510	Interactive 2-D Design I	4.5
DIMA 1410	2-D Animation and Compositing I	4.5
ARTS 2010	Life Drawing	4.5
	Gen. Ed.	4.5

##### ***Quarter Two***

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 - 3-D Animation and Games (DI3DO)**

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.

### **Requirements**

#### ***Tier II— Required Concentration (45.0 credit hrs.)***

DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1230	Drawing for Electronic Media	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 1620	Introduction to 3-D Modeling and Animation	4.5
DIMA 2620	3-D Character Development	4.5
DIMA 2625	3D Modeling for Animation and Games	4.5
DIMA 2640	3-D Lab	4.5
DIMA 2700	3-D Game Development	4.5
DIMA 2840	Projects Development	4.5

#### ***Tier III— Electives (9.0 credit hrs.)***

Select 9.0 credit hours from the following:

DIMA 1500	Web Design	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 1410	2-D Animation and Compositing I	4.5
DIMA 2410	2-D Animation and Compositing II	4.5
DIMA 2210	Electronic Illustration	4.5
DIMA 2500	Web Design Partnership Project	4.5
DIMA 2450	Design for Motion Graphics I	4.5
DIMA 2900	Special Topics in DIMA	variable
DIMA 2981	Internship	4.5
PHOT 1005	Basic Photography I - Digital	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
ARTS 2030	Elementary Sculpture	4.5
ARTS 2010	Life Drawing	4.5
INFO 2340	Internet Scripting	4.5

### **Suggested Course Sequence -3D**

#### ***First Year***

##### ***Quarter One***

ARTS 1010	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 1400	Game Design Fundamentals	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5

##### ***Quarter Three***

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
	Gen. Ed.	4.5

#### ***Second Year***

##### ***Quarter One***

DIMA 1450	Design for Motion Graphics I	4.5
DIMA 2700	3-D Game Development	4.5
DIMA 2625	3D Modeling for Animation and Games	4.5
	Gen. Ed.	4.5

##### ***Quarter Two***

DIMA 2640	3-D Lab	4.5
DIMA 1455	Introduction to Stop-Motion Animation	4.5
	Gen. Ed.	4.5
	Tier 3 Elective	4.5

##### ***Quarter Three***

	Gen. Ed.	9.0
	Gen. Ed.	4.5
	Tier 3 Elective	4.5
DIMA 2840	Projects Development	4.5

## **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 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 	4.5
DIMA 2500	Web Design Partnership Project	4.5
ENTR 1050	Introduction to Entrepreneurship 	4.5
DIMA 2700	3-D Game Development	4.5

### **Suggested Course Sequence – Graphic Design**

#### ***First Year***

##### ***Quarter One***

DIMA 1110	Digital Design: Raster	4.5
DIMA 1120	Digital Design: Vector	4.5
DIMA 1100	Desktop Publishing Basics - InDesign	4.5
ARTS 1020	2-D Design	4.5

##### ***Quarter Two***

ARTS 1010	Drawing	4.5
DIMA 1310	Typography I	4.5
DIMA 1305	Concept Development	4.5
	Gen. Ed.	4.5

##### ***Quarter Three***

DIMA 1325	Layout	4.5
DIMA 1320	History of Graphic Design	4.5
DIMA 1450	Design for Motion Graphics I	4.5
	Gen. Ed.	4.5

#### ***Second Year***

##### ***Quarter One***

DIMA 2300	Logo Design and Branding	4.5
DIMA 2350	Typography II	4.5
DIMA 1500	Web Design	4.5
	Gen. Ed.	4.5

##### ***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 (DILO)**

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 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 Development	4.5
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	Portfolio Development	4.5

#### ***Tier III— Electives (13.5 credit hrs.)***

Select 13.5 credit hours from the following:

ARTS 1110	Art History-Ancient to Gothic	4.5
	OR	
ARTS 1120	Art History-Renaissance to Modern	4.5
ARTS 2025	Watercolor	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1050	Creative Careers	4.5
DIMA 1620	Introduction to 3-D Modeling and Animation	4.5
DIMA 2981	Internship	4.5
DIMA 2900	Special Topics in DIMA	variable
DIMA 1411	History of Animation	4.5
DIMA 2450	Design for Motion Graphics II	4.5
DIMA 1320	History of Graphic Design	4.5
DIMA 1325	Layout	4.5
DIMA 2352	Publication Design	4.5
DIMA 2350	Typography II	4.5
DIMA 1305	Concept Development	4.5
DIMA 2351	Package Design	4.5
PHOT 1005	Basic Photography I - Digital	6.0
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5

### **Suggested Course Sequence-Illustration**

#### ***First Year***

##### ***Quarter One***

ARTS 1010	Drawing	4.5
ARTS 1020	2-D Design	4.5
DIMA 1110	Digital Design: Raster Gen. Ed.	4.5 4.5

##### ***Quarter Two***

DIMA 1120	Digital Design: Vector	4.5
ARTS 2010	Life Drawing	4.5
DIMA 1450	Design for Motion Graphics I Gen. Ed.	4.5 4.5

##### ***Quarter Three***

DIMA 1310	Typography I	4.5
ARTS 2020	Elementary Painting	4.5
DIMA 2210	Electronic Illustration Gen. Ed.	4.5 4.5

#### ***Second Year***

##### ***Quarter One***

DIMA 1200	Illustration I	4.5
ARTS 2040	Elementary Printmaking	4.5
DIMA 1230	Drawing for Electronic Media Gen. Ed.	4.5 4.5

##### ***Quarter Two***

DIMA 2200	Illustration II	4.5
DIMA 1220	Character, Narrative, and Storyboard Development Gen. Ed.	4.5 4.5
	Tier 3 Elective	4.5

##### ***Quarter Three***

DIMA 2810	Portfolio Development Gen. Ed.	4.5 4.5
	Tier 3 Elective	4.5
	Tier 3 Elective	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 II— Required Concentration (40.5 credit hrs.)**

DIMA 1411	History of Animation OR	4.5
DIMA 1320	History of Graphic Design	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1230	Drawing for Electronic Media	4.5
DIMA 1620	Introduction to 3-D Modeling and Animation	4.5
DIMA 1455	Introduction to Stop-Motion Animation OR	4.5
DIMA 1410	2-D Animation and Compositing I	4.5
DIMA 1400	Game Design Fundamentals	4.5
DIMA 1500	Web Design	4.5
DIMA 1305	Concept Development	4.5
DIMA 1200	Illustration I	4.5
DIMA 2840	Projects Development	4.5

#### **Tier III— Electives (13.5 credit hrs.)**

Select 13.5 credit hours from the following:

DIMA 1230	Drawing for Electronic Media	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 2410	2-D Animation and Compositing II	4.5
DIMA 2210	Electronic Illustration	4.5
INFO 1311	Web Page Creation	4.5
INFO 2340	Internet Scripting	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 2620	3-D Character Development	4.5
DIMA 2625	3D 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	4.5
ARTS 1030	3-D Studio	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	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5

## Suggested Course Sequence – Media Generalist

### First Year

#### Quarter One

ARTS 1010	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 II— Required Concentration (42.0 credit hrs.)***

DIMA 1411	History of Animation	4.5
DIMA 1220	Character, Narrative, and Storyboard 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	4.5
	OR	
DIMA 1410	2-D Animation and Compositing I	4.5
DIMA 2210	Electronic Illustration	4.5
DIMA 2840	Projects Development	4.5
PHOT 1500	Moving Image Lab	6.0
	OR	
VACA 1020	Audio I	4.5
	And	
VACA 1130	Video I - Studio	4.5

#### ***Tier III— Electives (9.0 credit hrs.)***

Select 9.0 credit hours from the following:

DIMA 1500	Web Design	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 2510	Interactive 2-D Design II	4.5
DIMA 1400	Game Design Fundamentals	4.5
DIMA 1455	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	4.5
DIMA 2700	3-D Game Development	4.5
DIMA 2620	3-D Character Development	4.5
DIMA 2625	3D 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
ARTS 2010	Life Drawing	4.5
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
ARTS 2030	Elementary Sculpture	4.5
ARTS 2040	Elementary Printmaking	4.5

## **Suggested Course Sequence – Motion Graphics**

### ***First Year***

#### ***Quarter One***

ARTS 1010	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 II - Required Concentration (31.5 credit hrs.)**

DIMA 1220	Character, Narrative, and Storyboard Development	4.5
INFO 1311	Web Page Creation	4.5
DIMA 1500	Web Design	4.5
INFO 2340	Internet Scripting	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 2500	Web Design Partnership Project	4.5
DIMA 2820	Web Design Portfolio Development	4.5

#### **Tier III— Electives (18.0 credit hrs.)**

Select 18.0 credit hours from the following:

DIMA 1411	History of Animation	4.5
DIMA 1230	Drawing for Electronic Media	4.5
DIMA 1620	Introduction to 3-D Modeling and Animation	4.5
DIMA 2510	Interactive 2-D Design II	4.5
DIMA 1400	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	History of Graphic Design	4.5
DIMA 1325	Layout	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
ARTS 1110	Art History-Ancient to Gothic	4.5
	OR	
ARTS 1120	Art History-Renaissance to Modern	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	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5

## **Suggested Course Sequence – Web Design**

### **First Year**

#### **Quarter One**

ARTS 1010	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
INFO 1311	Web Page Creation	4.5

#### **Quarter Three**

INFO 2340	Internet Scripting	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5
	Gen. Ed.	4.5
	Gen. Ed.	4.5

### **Second Year**

#### **Quarter One**

DIMA 1500	Web Design	4.5
DIMA 1510	Interactive 2-D Design I	4.5
	Tier 3 Elective	4.5
	Gen. Ed.	4.5

#### **Quarter Two**

DIMA 2500	Web Design Partnership Project	4.5
	Tier 3 Elective	4.5
	Tier 3 Elective	4.5
	Gen. Ed.	4.5

#### **Quarter Three**

DIMA 2840	Projects Development	4.5
	Tier 3 Elective	4.5
	Gen. Ed.	4.5

## **Design, Interactivity and Media Arts - DIMA Entrepreneur (DIENO)**

Students prepare for entrepreneurial self-employment opportunities.

### **Requirements**

#### ***Tier II—Required Concentration (27.0 credit hrs.)***

ENTR 1050	Introduction to Entrepreneurship <sup>~</sup> ☉	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5
ENTR 2050	Marketing for the Entrepreneur <sup>~</sup>	4.5
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	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 <sup>~</sup> ☉	4.5
	OR	
ARTS 1120	Art History-Renaissance to Modern <sup>~</sup>	4.5
HUMS 2310	Film History and Appreciation <sup>~</sup>	4.5

DIMA 2840: Students may not register for DIMA 2840 without instructor approval.

## **Suggested Course Sequence – DIMA Entrepreneur**

### ***First Year***

#### ***Quarter One***

ARTS 1010	Drawing	4.5
DIMA 1110	Digital Design: Raster	4.5
ENTR 1050	Introduction to Entrepreneurship <sup>~</sup> ☉	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 <sup>~</sup>	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 <sup>~</sup>	4.5
	Gen. Ed.	4.5

### ***Second Year***

#### ***Quarter One***

ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	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 <sup>~</sup>	4.5
	Tier 3 Elective	4.5
	Tier 3 Elective	4.5
	Gen. Ed.	4.5

#### ***Quarter Three***

ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	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
<b>Total credit hours required</b>	<b>57.0</b>

### General education requirements (13.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
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#### Humanities/social sciences

Select one course from the following:

ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5
DIMA 1411	History of Animation	4.5

#### Quantitative/numeracy skills

MATH 1310	Intermediate Algebra	4.5
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### Major requirements for Design, Interactivity and Media Arts – Web Multimedia Production (43.5 credit hrs.)

#### Courses

DIMA 1220	Character, Narrative, and Storyboard 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	4.5
PHOT 1005	Basic Photography I - Digital OR	6.0
PHOT 1500	Moving Image Lab	6.0
VACA 1130	Video I - Studio	4.5
VACA 2220	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	4-D Studio	4.5
ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5
DIMA 1411	History of Animation	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5
HUMS 2310	Film History and Appreciation	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	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 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	4.5
PHOT 1025	Digital Photography OR	6.0
PHOT 1500	Moving Image Lab	6.0
VACA 1130	Video I - Studio	4.5

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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
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#### **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	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Design and Interactive Media Arts Entrepreneurship (40.5 credit hrs.)**

#### **Courses**

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
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5

#### **Select two courses from the following:**

DIMA 1100	Desktop Publishing Basics - InDesign	4.5
DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1305	Concept Development	4.5
DIMA 1325	Layout	4.5
DIMA 1400	Game Design Fundamentals	4.5
DIMA 1410	2-D Animation and Compositing I	4.5
DIMA 1500	Web Design	4.5
DIMA 1510	Interactive 2-D Design I	4.5
DIMA 1620	Introduction to 3-D Modeling and Animation	4.5
DIMA 2410	2-D Animation and Compositing II	4.5
DIMA 2450	Design for Motion Graphics II	4.5
DIMA 2500	Web Design Partnership Project	4.5
DIMA 2510	Interactive 2-D Design II	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	4.5
HIST 1120	World Civilization from 1500 to Present	4.5
HUMS 1150	Multi-Cultural Humanities II: The Humanities in the Non-Western World	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
POLS 2070	Contemporary Social and Political Issues	4.5
SOCI 1250	Introduction to Anthropology	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	4.5
	OR	
ENGL 1230	Business Writing	4.5
ENGL 1240	Oral and Written Reports	4.5
SPCH 1110	Public Speaking	4.5
PHIL 1030	Professional Ethics	4.5

#### **Electives - Select one of the following three areas of emphasis:**

##### **Creative Communication**

ENGL 1310	Creative Writing	4.5
ENGL 1320	Introduction to Publication	4.5

##### **Not-for-Profit Communication**

BSAD 1250	Introduction to Not-for-Profit Management	4.5
ENGL 2210	Grant Writing	4.5

##### **Group Communication**

SPCH 1220	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

### Certificate of Achievement:

Interior Design Entrepreneurship

## 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
<b>Total credit hours required</b>	<b>100.0</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Humanities/social sciences

ARTS 1000	Introduction to the Visual Arts	4.5
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#### Quantitative/numeracy skills

Select one course from the following:

MATH 1220	Business Mathematics	4.5
MATH 1260	Geometry	4.5
	any higher level MATH course	4.5

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Interior Design (73.0 credit hrs.)

#### Courses

INTD 1100	Illustration Techniques for Interiors	3.0
INTD 1210	Interior Design I	4.5
INTD 1220	Interior Design II	4.5
INTD 1230	Interior Design III	3.0
INTD 1260	Color Theory	4.5
INTD 1310	Fundamentals of Textiles	4.5
INTD 1320	Interior Finishes and Materials	4.5
INTD 1410	History of Architecture and Interiors	4.5
INTD 1420	History of Furniture	4.5
INTD 2100	Room Rendering	4.5
INTD 2250	Commercial Design	4.0
INTD 2520	Professional Practice	3.0
INTD 2940	Interior Design IV	3.0
INTD 2981	Internship	3.0

To register for INTD 2900 or 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	Bookkeeping	3.0
	OR	
ACCT 1100	Accounting I	4.0
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARTS 1010	Drawing	4.5
ARTS 1110	Art History-Ancient to Gothic	4.5
ARTS 1120	Art History-Renaissance to Modern	4.5
BSAD 1000	Introduction to Business	4.5
	OR	
ENTR 1050	Introduction to Entrepreneurship	4.5
BSAD 1200	Principles of Selling	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
INTD 2900	Special Topics in Interior Design	variable

To register for INTD 2900 or INTD 2981 Internship, students must contact an Interior Design instructor and have completed a minimum of 30.0 hours in the Interior Design program.

## Suggested Course Guide

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	Illustration Techniques for Interiors	3.0
INTD 1210	Interior Design I	4.5
INTD 1310	Fundamentals of Textiles	4.5
MATH	course	4.5

#### Second Quarter

	English level I	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> ☺	4.5
INTD 1220	Interior Design II	4.5
INTD 1320	Interior Finishes and Materials	4.5

#### Third Quarter

	English level II	4.5
INTD 1230	Interior Design III	3.0
INTD 1260	Color Theory	4.5
	Related discipline	4.5

### Second Year

#### Fifth Quarter

INTD 1410	History of Architecture and Interiors	4.5
INTD 2100	Room Rendering	4.5
	Related discipline	9.0

#### Sixth Quarter

HMRL 1010	Human Relations Skills <sup>~</sup> ☺	4.5
INTD 1420	History of Furniture	4.5
INTD 2250	Commercial Design	4.0
	Related discipline	4.5

#### Seventh Quarter

	Humanities/social sciences elective	4.5
INTD 2520	Professional Practice	3.0
INTD 2940	Interior Design IV	3.0
INTD 2981	Internship	3.0

## Interior Design Entrepreneurship (IENCE)

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus

This certificate is for practicing design professionals who are interested in becoming self-employed. **NOTE:** *This certificate of achievement leads to a general studies degree.*

### Graduation Requirements

General education	13.5
Major requirements	37.0– 38.5
<b>Total credit hours required</b>	<b>50.5– 52.0</b>

### General education requirements (13.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I <sup>~</sup> ☺	4.5
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#### Humanities/social sciences

ARTS 1000	Introduction to the Visual Arts <sup>~</sup>	4.5
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#### Quantitative/numeracy skills

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup>	4.5
MATH 1260	Geometry	4.5
	any higher level MATH course	4.5

### Major requirements for Interior Design Entrepreneurship (37.0-38.5 credit hrs.)

#### Courses

ENTR 1050	Introduction to Entrepreneurship <sup>~</sup> ☺	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>~</sup>	4.5
ENTR 2090	Entrepreneurship Business Plan <sup>~</sup>	4.5
INTD 1230	Interior Design III	3.0
INTD 2100	Room Rendering	4.5
INTD 2250	Commercial Design	4.0

INTD 1230, INTD 2100, and INTD 2250: Additional prerequisite(s) may be required.

#### Select three courses from the following:

ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ENTR 2050	Marketing for the Entrepreneur <sup>~</sup>	4.5
ENTR 2060	Legal Issues for the Entrepreneur <sup>~</sup>	4.5
ENTR 2070	Financial Topics for the Entrepreneur <sup>~</sup>	4.5
INTD 2520	Professional Practice	3.0

INTD 2520: Additional prerequisite(s) may be required.

## 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
<b>Total credit hours required</b>	<b>49.5</b>

## General education requirements (13.5 credit hrs.)

### Communications

ENGL 1010 English Composition I <sup>~</sup> <sup>☉</sup> 4.5

### Social sciences

Social sciences 4.5

See Social Sciences options (p. 38)

### Quantitative/numeracy skills

MATH 1220 Business Mathematics <sup>~</sup> 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 <sup>~</sup>	4.5
LANG 1120	Interpreting Ethics <sup>~</sup>	4.5
LANG 1130	Emphasis Seminar <sup>~</sup>	4.5

## Specialty course sequences

(students must complete one area of specialization and LANG 2900 Special Topics in Languages)

### Community specialization

LANG 2110	Fundamentals of Community Interpretation <sup>~</sup>	4.5
LANG 2120	Community Interpretation - Terminology and Sight Translation <sup>~</sup>	4.5
LANG 2130	Consecutive Interpretation - Community	4.5
LANG 2140	Simultaneous Interpretation - Community	4.5

### Legal specialization

LANG 2210	Fundamentals of Legal Interpretation <sup>~</sup>	4.5
LANG 2220	Legal Terminology and Sight Translation <sup>~</sup>	4.5
LANG 2230	Consecutive Interpretation - Legal <sup>~</sup>	4.5
LANG 2240	Simultaneous Interpretation - Legal <sup>~</sup>	4.5

### Medical specialization

LANG 2310	Fundamentals of Medical Interpretation <sup>~</sup>	4.5
LANG 2320	Medical Terminology and Sight Translation <sup>~</sup>	4.5
LANG 2330	Consecutive Interpretation - Medical <sup>~</sup>	4.5
LANG 2340	Simultaneous Interpretation - Medical <sup>~</sup>	4.5
LANG 2900	Special Topics in Languages	variable

## Suggested Course Guide

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	English Composition I <sup>~</sup> <sup>☉</sup>	4.5
LANG 1110	Introduction to Language Interpretation <sup>~</sup>	4.5
MATH 1220	Business Mathematics <sup>~</sup>	4.5

#### Second quarter (Winter)

LANG 1120	Interpreting Ethics <sup>~</sup>	4.5
LANG 1130	Emphasis Seminar <sup>~</sup>	4.5
	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

The student in the Photography program learns to solve photographic problems through the skillful use of camera, lighting, laboratory, and electronic techniques. Included in the program are experiences in commercial, general, and digital photography. 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 portrait 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
<b>Total credit hours required</b>	<b>105.0</b>

### General education requirements (28.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### Humanities/social sciences

PHOT 1005	Basic Photography I - Digital	6.0
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#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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 Practice	6.0

#### Select 18.0 credit hours from the following:

ENTR 1050	Introduction to Entrepreneurship	4.5
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	6.0
PHOT 2900	Special Topics in Photography	variable
PHOT 2981	Internship	variable
ARTS	Course of choice	4.5
DIMA	course of choice	4.5
VACA	course of choice	4.5

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://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	Spanish for Business I	4.5
SPAN 1051	Spanish for Business II	4.5
SPAN 2050	Intermediate Spanish for Business I	4.5
SPAN 2051	Intermediate Spanish for Business II	4.5
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.)

#### Courses

SPAN 1060	Spanish for Healthcare I	4.5
SPAN 1061	Spanish for Healthcare II	4.5
SPAN 2060	Intermediate Spanish for Healthcare I	4.5
SPAN 2061	Intermediate Spanish for Healthcare II	4.5
SPAN 2982	Spanish for Healthcare Internship	variable

## Theatre

Theatre—a blend of visual arts/design, music, literature, research, physical expression, technology, and business—is the quintessential liberal arts degree. Theatre studies strengthens 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.

### Degrees: Associate in Arts

Theatre

### Certificate of Achievement:

Theatre – Playwriting

Theatre – Theatre Technology

### Career Certificate:

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 also give a solid background in interdisciplinary arts, social awareness, and appreciation of diverse cultures. Students who successfully complete this degree can go on to a baccalaureate institution to major in theatre, speech/communications, film/digital media, or related humanities or education fields.

### Graduation Requirements

General education	31.5
Major requirements	67.0
<b>Total credit hours required</b>	<b>98.5</b>

### General education requirements (31.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

### Humanities/social sciences

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 295)

THEA 1000 Introduction to Theatre is recommended

### Quantitative/numeracy skills

Quantitative/numeracy skills 4.5

See Quantitative/numeracy skills course options (p. 295)

### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Theatre (67.0 credit hrs.)

#### Courses

THEA 1110	Theatre Technology I	4.0
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2030	Playwriting I	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2480	Introduction to Drama Literature I	4.5
THEA 2481	Introduction to Drama Literature II	4.5

#### Select 22.5 credit hours from the following:

THEA 1120	Theatre Technology II	4.0
THEA 1130	Theatre Technology III	4.0
THEA 2021	Fundamentals of Acting II	4.5
THEA 2031	Playwriting II	4.5
THEA 2040	Movement for the Actor	4.5
THEA 2050	Voice for the Actor	4.5
THEA 2150	Stage Rigging	4.5
THEA 2160	Principles of Stage Lighting	4.5
THEA 2170	Stage Management	4.5
THEA 2200	Arts Administration	4.5
THEA 2900	Special Topics in Theatre	variable
	OR	
THEA 2901	Special Topics in Playwriting	1.0
	OR	
THEA 2920	Theatre Practicum	variable
THEA 2981	Cooperative Study I	4.0
THEA 2982	Cooperative Study II	4.0
THEA 2983	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.

## **Playwriting (THEPC)**

**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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements (18.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### **Humanities**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

THEA 1000 Introduction to Theatre is recommended.

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

### **Major requirements for Theatre – Playwriting (36.0 credit hrs.)**

#### **Courses**

ENGL 1310	Creative Writing	4.5
THEA 2480	Introduction to Drama Literature I	4.5
	OR	
THEA 2481	Introduction to Drama Literature II	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2030	Playwriting I	4.5
THEA 2031	Playwriting II	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	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 1500-hour requirement to receive the Theatre Technology Apprenticeship Program Certificate from the U.S. Department of Labor, students are required to complete an additional 24.0 credit hours of cooperative study courses (THEA 2981–THEA 2986) beyond the MCC certificate of achievement.

### **Graduation Requirements**

General education	13.5
Major requirements	34.5
<b>Total credit hours required</b>	<b>48.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I	4.5
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See Communications course options (p. 38)

#### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Humanities**

Humanities	4.5
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See Humanities course options (p. 38)

THEA 1000 Introduction to Theatre is recommended.

### **Major requirements for Theatre – Theatre Technology (34.5 credit hrs.)**

#### **Courses**

THEA 1110	Theatre Technology I	4.0
THEA 1120	Theatre Technology II	4.0
THEA 1130	Theatre Technology III	4.0
THEA 2010	Script Analysis	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2150	Stage Rigging	4.5
	OR	
THEA 2900	Special Topics in Theatre	variable
THEA 2160	Principles of Stage Lighting	4.5

**Playwriting (THEPD)****Award:** Career certificate**Program location:** Elkhorn Valley Campus, Fort Omaha Campus, South Omaha Campus

This career certificate is for students who want to develop and enhance their playwriting skills.

**Requirements for Playwriting career certificate (27.0 credit hrs.)****Courses**

ENGL 1010	English Composition I	4.5
ENGL 2480	Introduction to Drama Literature I	4.5
	OR	
THEA 2480	Introduction to Drama Literature I	4.5
ENGL 2481	Introduction to Drama Literature II	4.5
	OR	
THEA 2481	Introduction to Drama Literature II	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2030	Playwriting I	4.5
THEA 2031	Playwriting II	4.5

Degree-seeking students should select THEA 2480 and THEA 2481

**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	Theatre Technology I	4.0
THEA 1120	Theatre Technology II	4.0
THEA 1130	Theatre Technology III	4.0
THEA 2010	Script Analysis	4.5
THEA 2981	Cooperative Study I	4.0
THEA 2982	Cooperative Study II	4.0
THEA 2983	Cooperative Study III	4.0

## Video/Audio Communication 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

Video/Audio Communications Arts – Digital Cinema

Video/Audio Communications Arts – Screenwriting

## Video/Audio 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
<b>Total credit hours required</b>	<b>100.5</b>

### General education requirements (28.5 credit hrs.)

#### Communications

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

#### Humanities/social sciences

PHOT 1005	Basic Photography I - Digital	6.0
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#### Quantitative/numeracy skills

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 295 )

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Video/Audio Communication Arts (72.0 credit hrs.)

#### Courses

ARTS 1020	2-D Design	4.5
DIMA 1450	Design for Motion Graphics I	4.5
PHOT 1025	Digital Photography	6.0
PHOT 1500	Moving Image Lab	6.0
VACA 1010	Audio and Video Production Engineering	4.5
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 2130	Video II - Field	4.5
VACA 2131	Video III - Project Development	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2540	Video Portfolio Development	3.0
VACA 2940	MetroVision Practicum	3.0
	OR	
VACA 2981	Internship	variable

#### Select 9.0 credit hours from the following:

ARTS 1010	Drawing	4.5
DIMA 1220	Character, Narrative, and Storyboard 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 2900	Special Topics in Video/Audio	variable

## **Video/Audio Communications Arts (VACCE)**

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus

This certificate provides students with basic skills in linear and non-linear video production. Students earning a certificate may seek employment as a videographer, editor, or other technician in a video business.

### **Graduation Requirements**

General education	15.0
Major requirements	37.5
<b>Total credit hours required</b>	<b>52.5</b>

### **General education requirements (15.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
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#### **Humanities/social sciences**

PHOT 1005	Basic Photography I - Digital	6.0
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#### **Quantitative/numeracy skills**

MATH 1240	Applied Mathematics	4.5
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### **Major requirements for Video/Audio Communications Arts (37.5 credit hrs.)**

Students should work with faculty to select courses from the list that meet their career goals.

#### **Courses**

PHOT 1500	Moving Image Lab	6.0
VACA 1110	Introduction to Scriptwriting	4.5
VACA 1130	Video I - Studio	4.5
VACA 2130	Video II - Field	4.5
VACA 2131	Video III - Project Development	4.5
VACA 2220	Digital Media Editing	4.5

#### **Select 9.0 credit hours from the following:**

DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1450	Design for Motion Graphics I	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1020	Audio I	4.5
VACA 2020	Audio II	4.5
VACA 2050	Pro-Tools	4.5
VACA 2060	Audio Mixing and Summing	4.5
VACA 2070	Modern Recording Techniques	4.5
VACA 2120	Screenwriting Principles	4.5
VACA 2540	Video Portfolio Development	3.0
VACA 2900	Special Topics in Video/Audio	variable
VACA 2940	MetroVision Practicum	3.0
VACA 2981	Internship	variable

VACA 2540: Additional prerequisite(s) may be required.

## **Digital Cinema (VDCCE)**

**Award:** Certificate of achievement

**Program location:** Elkhorn Valley Campus

This certificate provides students with basic skills in 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	40.5
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
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#### **Humanities/social sciences**

HUMS 2310	Film History and Appreciation	4.5
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#### **Quantitative/numeracy skills**

MATH 1240	Applied Mathematics	4.5
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### **Major requirements for Video/Audio Communication Arts – Digital Cinema (40.5 credit hrs.)**

#### **Courses**

PHOT 1500	Moving Image Lab	6.0
VACA 1020	Audio I	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	Screenwriting Principles	4.5
VACA 2130	Video II - Field	4.5
VACA 2131	Video III - Project Development	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2940	MetroVision Practicum	3.0

#### **Select 4.5 credit hours from the following:**

DIMA 1220	Character, Narrative, and Storyboard Development	4.5
DIMA 1450	Design for Motion Graphics I	4.5
DIMA 1620	Introduction to 3-D Modeling and Animation	4.5
PHOT 1005	Basic Photography I - Digital	6.0
PHOT 1025	Digital Photography	6.0
THEA 2020	Fundamentals of Acting I	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1130	Video I - Studio	4.5
VACA 2020	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

## **Screenwriting (VACSE)**

**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**

General education	18.0
Major requirements	33.0
<b>Total credit hours required</b>	<b>51.0</b>

#### **General education requirements (18.0 credit hrs.)**

##### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5

##### **Humanities**

HUMS 2310	Film History and Appreciation	4.5
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##### **Quantitative/numeracy skills**

Mathematics	4.5
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See Quantitative/numeracy skills course options (p. 40)

#### **Major requirements for Video/Audio Communications Arts – Screenwriting (33.0 credit hrs.)**

##### **Courses**

ENGL 1310	Creative Writing	4.5
ENGL 2480	Introduction to Drama Literature I	4.5
PHOT 1500	Moving Image Lab	6.0
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	Screenwriting Principles	4.5

## **Sound Recording (VSRCE)**

**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
<b>Total credit hours required</b>	<b>55.5</b>

#### **General education requirements (13.5 credit hrs.)**

##### **Communications**

ENGL 1010	English Composition I	4.5
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##### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

##### **Quantitative/numeracy skills**

MATH 1240	Applied Mathematics	4.5
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#### **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	Moving Image Lab	6.0
VACA 1010	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	Audio III	4.5
	OR	
VACA 2981	Internship	variable
VACA 2050	Pro-Tools	4.5
VACA 2060	Audio Mixing and Summing	4.5
VACA 2070	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 since 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
<b>Total credit hours required</b>	<b>103.0–104.5</b>

### General education requirements (32.5-44.0 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	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### Social sciences

##### Select two courses from the following:

ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 2050	Current Social Problems	4.5

#### Quantitative/numeracy skills

MATH 1420	College Algebra	5.0
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MATH 1420: Additional prerequisite(s) may be required.

#### Natural sciences

Natural sciences	6.0-7.5
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See Natural sciences course options (p. 297)

CHEM 1010 or PHYS 110A-C recommended; students may waive hidden prerequisites.

#### Other

HMRL 1010	Human Relations Skills	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 I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1531	Java Programming II	4.5
INFO 2521	Intel Assembly Language I	4.5
INFO 2531	Intel Assembly Language II	4.5
INFO 2537	Data Structures Using C and C++	4.5
MATH 2410	Calculus I	7.5
MATH 2411	Calculus II	7.5
INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

MATH 2410: Additional prerequisite(s) may be required.

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://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
<b>Total credit hours required</b>	<b>98.5</b>

### **General education requirements (44.0 credit hrs.)**

#### **Communications**

ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### **Social sciences**

SOCI 1010	Introduction to Sociology	4.5
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#### **Select one of the following:**

ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 2050	Current Social Problems	4.5

#### **Quantitative/numeracy skills**

MATH 1420	College Algebra	5.0
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MATH 1420: Additional prerequisite(s) may be required.

#### **Natural sciences**

PHYS 110A	Principles of Physics IA	2.5
PHYS 110B	Principles of Physics IB	2.5
PHYS 110C	Principles of Physics IC	2.5

#### **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	5.0
INFO 1110	Windows Operating Systems I	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1620	Introduction to Database Design	4.5
INFO 2362	Building Secure Environments	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing	4.5
INFO 2808	Boundary Protection	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics	4.5

## **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
<b>Total credit hours required</b>	<b>100.0–101.5</b>

### **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 I	4.5
ENGL 1020	English Composition II	4.5
SPCH 1110	Public Speaking	4.5

#### **Social sciences**

ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5

#### **Quantitative/numeracy skills**

MATH 1420	College Algebra	5.0
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MATH 1420: Additional prerequisite(s) may be required.

#### **Natural sciences**

Natural sciences	6.0-7.5
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See Natural sciences course options (p. 297)

PHYS 110A-C is recommended.

#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

#### **Cultural diversity**

Select one course from the following:

ENGL 2530	Ethnic Literature	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1110	World Civilization from Prehistory to 1500	4.5
HIST 1120	World Civilization from 1500 to Present	4.5

### **Major requirements for Computer Technology Transfer – Management Information Systems (53.0 credit hrs.)**

#### **Courses**

ACCT 1100	Accounting I	4.0
ACCT 1110	Accounting II	4.0
ACCT 1120	Accounting III	4.0
INFO 1003	Introduction to Computer Programming	5.0
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1531	Java Programming II	4.5
INFO 1620	Introduction to Database Design	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

INFO 2630: Students are required to take an additional upper-division database-related course at UNO to meet UNO's degree requirements.

Students may waive hidden prerequisites for INFO classes.

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://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 - Database Systems

General Information Technology - Oracle Database Systems

General Information Technology - UNIX/Linux Operating Systems

**Career Certificate:**

Project Management

### 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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

#### 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. 38)

**Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

**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	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

#### Major requirements for General Information Technology (32.0 credit hrs.)

**Courses**

INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1111	Linux Operating Systems I	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1311	Web Page Creation	4.5
INFO 1620	Introduction to Database Design	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.

## Suggested Guide for Courses

Below is a suggested guide for students planning careers in general information technology 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	Introduction to Computer Programming	5.0

#### Second quarter

INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1620	Introduction to Database Design	4.5

#### Third quarter

	English level II	4.5
INFO 1023	Networking Essentials	4.5
INFO 1311	Web Page Creation	4.5

#### Fourth quarter

HMRL 1010	Human Relations Skills	4.5
INFO 1111	Linux Operating Systems I	4.5
MATH 1220	Business Mathematics	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

INFO	Elective	4.5
INFO	Elective	4.5
	Social sciences elective	4.5

#### Eighth quarter

INFO	Capstone course	4.5
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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
<b>Total credit hours required</b>	<b>50.0–50.5</b>

### **General education requirements (13.5-14.0 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Other**

INFO 1001 Information Systems and Literacy<sup>~</sup> 4.5

#### **Quantitative/numeracy skills**

MATH 1220 Business Mathematics<sup>~</sup> 4.5

OR

MATH 1420 College Algebra<sup>~</sup> 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 <sup>~</sup>	5.0
INFO 1009	Introduction to Cloud Computing <sup>~</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5

#### **Select one of the following pair of language options:**

##### **Option 1:**

INFO 1521 Java Programming I<sup>~</sup> 4.5

INFO 1531 Java Programming II<sup>~</sup> 4.5

##### **Option 2:**

INFO 1523 Visual Basic.NET I<sup>~</sup> 4.5

INFO 1533 Visual Basic.NET II<sup>~</sup> 4.5

##### **Option 3:**

INFO 1526 C# (C-Sharp) Programming I<sup>~</sup> 4.5

INFO 1536 C# (C-Sharp) Programming II<sup>~</sup> 4.5

### **Suggested Guide for Courses**

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 <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0

##### **Second quarter**

INFO 1009	Introduction to Cloud Computing <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5
MATH 1220	Business Mathematics <sup>~</sup>	4.5
	OR	
MATH 1420	College Algebra <sup>~</sup>	5.0

##### **Third quarter**

INFO 1311	Web Page Creation <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
	Language option	4.5

##### **Fourth quarter**

INFO 2351	Introduction to XML <sup>~</sup>	4.5
	Language option	4.5

## **General Information Technology - Database Systems (DBSCE)**

**Award:** Certificate of achievement

**Program location:** Fort Omaha Campus, South Omaha Campus, Online

This certificate of achievement provides students with a strong foundation in database systems. Students explore various DBMS software products and utilities.

### **Graduation Requirements**

General education	18.0–18.5
Major requirements	27.5
Option requirements	4.5
<b>Total credit hours required</b>	<b>50.0–50.5</b>

### **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
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See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup>	4.5
MATH 1420	College Algebra <sup>~</sup>	5.0

MATH 1420: Additional prerequisite(s) may be required.

#### **Other**

INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5
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### **Major requirements for Database Systems (27.5 credit hrs.)**

#### **Courses**

INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0
INFO 1213	Database Fundamentals <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
INFO 2635	MySQL Programming <sup>~</sup>	4.5
INFO 2641	SQL Server Design and Implementation <sup>~</sup>	4.5

### **Option requirements for Database Systems (4.5 credit hrs.)**

#### **Courses**

Select one course from the following:

INFO 1023	Networking Essentials <sup>~</sup>	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
INFO 1521	Java Programming I <sup>~</sup>	4.5

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers in database systems after one year of full-time study.

#### **First Year**

##### **First quarter**

INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0
	English level I	4.5

##### **Second quarter**

INFO 1213	Database Fundamentals <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5
	Option	4.5

##### **Third quarter**

	Humanities/social science elective	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
INFO 2635	MySQL Programming <sup>~</sup>	4.5

##### **Fourth quarter**

INFO 2641	SQL Server Design and Implementation <sup>~</sup>	4.5
MATH	Elective	4.5-5.0

## **General Information Technology - Oracle Database Systems (ODBCE)**

**Award:** Certificate of achievement

**Program location:** Fort Omaha Campus, Online

This certificate of achievement provides students with a strong foundation in various aspects of the Oracle Database Management System. The certificate program helps prepare students for the Oracle Certified Associate certification.

### **Graduation Requirements**

General education	13.5–14.0
Major requirements	36.5
<b>Total credit hours required</b>	<b>50.0–50.5</b>

### **General education requirements (13.5-14.0 credit hrs.)**

#### **Communications**

English level I	4.5
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See Communications course options (p. 38)

#### **Other**

INFO 1001	Information Systems and Literacy <sup>~</sup> 	4.5
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#### **Quantitative/numeracy skills**

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup> 	4.5
MATH 1420	College Algebra <sup>~</sup> 	5.0

MATH 1420: Additional prerequisite(s) may be required.

### **Major requirements for Oracle Database Systems (36.5 credit hrs.)**

#### **Courses**

INFO 1003	Introduction to Computer Programming <sup>~</sup> 	5.0
INFO 1620	Introduction to Database Design <sup>~</sup> 	4.5
INFO 2632	Oracle SQL <sup>~</sup> 	4.5
INFO 2640	Oracle PL/SQL Programming <sup>~</sup> 	4.5
INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development <sup>~</sup> 	4.5

INFO 2640: Additional prerequisite(s) may be required.

#### **Select two courses from the following:**

INFO 1023	Networking Essentials <sup>~</sup> 	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup> 	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup> 	4.5
INFO 1311	Web Page Creation <sup>~</sup> 	4.5
INFO 1521	Java Programming I <sup>~</sup> 	4.5
INFO 2340	Internet Scripting	4.5
INFO 2351	Introduction to XML <sup>~</sup> 	4.5

INFO 1311, INFO 2340, INFO 2351: Additional prerequisite(s) may be required.

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers in Oracle database systems after one year of study.

#### **First Year**

##### **First quarter**

INFO 1001	Information Systems and Literacy <sup>~</sup> 	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup> 	5.0

##### **Second quarter**

INFO 1620	Introduction to Database Design <sup>~</sup> 	4.5
INFO	Elective	4.5
MATH	Elective	4.5-5.0

##### **Third quarter**

INFO 2632	Oracle SQL <sup>~</sup> 	4.5
INFO 2640	Oracle PL/SQL Programming <sup>~</sup> 	4.5
INFO	Elective	4.5

##### **Fourth quarter**

INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development <sup>~</sup> 	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 very popular operating systems in the information world today. This certificate of achievement provides skills in using and operating these operating systems.

### Graduation Requirements

General education	18.0–18.5
Major requirements	32.0
<b>Total credit hours required</b>	<b>50.0–50.5</b>

### 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
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See Communications course options (p. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup>	4.5
MATH 1420	College Algebra <sup>~</sup>	5.0

MATH 1420: Additional prerequisite(s) may be required.

#### Other

INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5
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### Major requirements for UNIX/Linux Operating Systems (32.0 credit hrs.)

#### Courses

INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
INFO 1113	AIX Operating System	4.5
INFO 1120	Operating Systems II <sup>~</sup>	4.5
INFO 1121	Linux Operating Systems II	4.5
INFO 2122	UNIX Scripting <sup>~</sup>	4.5

### Suggested Guide for Courses

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 <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0

##### Second quarter

	Social science elective	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5

##### Third quarter

INFO 1113	AIX Operating System	4.5
INFO 1120	Operating Systems II <sup>~</sup>	4.5
MATH	Elective	4.5-5.0

##### Fourth quarter

INFO 1121	Linux Operating Systems II	4.5
INFO 2122	UNIX Scripting <sup>~</sup>	4.5

## Project Management (PSPSD)

**Award:** Career certificate

This career certificate prepares students to work in project management for business and industry. **NOTE:** This career certificate leads to a general studies degree.

### Requirements for Project Management career certificate (27.0 credit hrs.)

#### Courses

BSAD 2100	Principles of Management <sup>~</sup>	4.5
INFO 1008	Business Office Communications <sup>~</sup>	4.5
INFO 1010	Customer Service Skills <sup>~</sup>	4.5
INFO 1011	Project Management <sup>~</sup>	4.5
INFO 1214	Business Presentations <sup>~</sup>	4.5
HMRL 1050	Leadership: Training and Skill Development	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
<b>Total credit hours required</b>	<b>99.5</b>

### 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. 38)

#### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

### Quantitative/numeracy skills

MATH 1420	College Algebra	5.0
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MATH 1420: Additional prerequisite(s) may be required.

### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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 I	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	5.0
INFO 1111	Linux Operating Systems I	4.5
INFO 1120	Operating Systems II	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5

INFO 1120: Additional prerequisite(s) may be required.

## Suggested Guide for Courses

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  	4.5
MATH 1420	College Algebra 	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 I  	4.5

#### Fourth quarter

ELEC 1210	Cisco Routing	9.0
HMRL 1010	Human Relations Skills  	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
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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
<b>Total credit hours required</b>	<b>100.0</b>

### **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. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/Numeracy Skills**

MATH 1420	College Algebra	5.0
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MATH 1420: Additional prerequisite(s) may be required.

#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### **Major requirements for Electronics Technology – Computer Electronics (54.5 credit hrs.)**

#### **Courses**

ELEC 1000	Basic Electricity/Electronics	9.0
ELEC 1010	Electronic Devices/Digital Circuits	9.0
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
INFO 1002	Introduction to Information Technology	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	Cisco LAN Switching	9.0
ELEC 2230	Cisco Accessing the WAN	9.0
INFO 1110	Windows Operating Systems I	4.5
INFO 1111	Linux Operating Systems I	4.5
INFO 1112	Introduction to IBM i	4.5
INFO 1113	AIX Operating System	4.5
INFO 1120	Operating Systems II	4.5
INFO 1121	Linux Operating Systems II	4.5

### **Suggested Guide for Courses**

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	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	4.5

##### **Third quarter**

ELEC 1000	Basic Electricity/Electronics	9.0
INFO 1003	Introduction to Computer Programming	5.0

##### **Fourth quarter**

ELEC 1010	Electronic Devices/Digital Circuits	9.0
HMRL 1010	Human Relations Skills	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
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##### **Eighth quarter**

	Elective(s)	9.0
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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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Quantitative/numeracy skills**

MATH 1310 Intermediate Algebra 4.5

#### **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	Cisco Routing	9.0
ELEC 2220	Cisco LAN Switching	9.0
ELEC 2230	Cisco Accessing the WAN	9.0
INFO 1110	Windows Operating Systems I	4.5

### **Suggested Guide for Courses**

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	9.0
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

ELEC 1210	Cisco Routing	9.0
INFO 1110	Windows Operating Systems I	4.5

##### **Third quarter**

ELEC 2220	Cisco LAN Switching	9.0
	English level I	4.5

##### **Fourth quarter**

ELEC 2230	Cisco Accessing the WAN	9.0
MATH 1310	Intermediate Algebra	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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I	4.5
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See Communications course options (p. 38)

#### **Quantitative/Numeracy Skills**

MATH 1310	Intermediate Algebra	4.5
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#### **Other**

INFO 1001	Information Systems and Literacy	4.5
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### **Major requirements for Electronics Technology – Microcomputer Repair (22.5 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
INFO 1110	Windows Operating Systems I	4.5

### **Option requirements for Electronics Technology – Microcomputer Repair (18.0 credit hrs.)**

#### **Courses**

ELEC 1000	Basic Electricity/Electronics	9.0
ELEC 1010	Electronic Devices/Digital Circuits	9.0

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers in microcomputer repair after one year of full-time study.

#### **First Year**

##### **First quarter**

ELEC 1100	IT Essentials PC Repair I	4.5
	English level I	4.5
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

ELEC 1000	Basic Electricity/Electronics	9.0
ELEC 1110	IT Essentials PC Repair II	4.5

##### **Third quarter**

ELEC 1010	Electronic Devices/Digital Circuits	9.0
INFO 1110	Windows Operating Systems I	4.5

##### **Fourth quarter**

ELEC 1200	Cisco Network Fundamentals	9.0
MATH 1310	Intermediate Algebra	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.

## **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	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 – Embedded Systems

Information Technology – Data Center Management

Information Technology – Database Administration

Information Technology – Desktop Support Specialist

Information Technology – Programming for Database/Web

Information Technology – Server Administration

Information Technology – Web Development

### **Certificate of Achievement:**

Information Technology – Data Center Technician

Information Technology – Network Technician

Information Technology – Security Technician

Information Technology – Server Technician

Information Technology – Web Author

### **Career Certificate:**

Transitional Object-Oriented Programming

## **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	45.0–49.5
<b>Total credit hours required</b>	<b>104.0–109.0</b>

### **General education requirements (27.0-27.5 credit hrs.)**

The general education requirement for this degree program exceeds 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. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/Numeracy Skills**

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup> Ⓞ	4.5
MATH 1420	College Algebra <sup>~</sup> Ⓞ	5.0

MATH 1420: Students transferring to a four-year institution must take this course. Additional prerequisite(s) may be required.

#### **Other**

HMRL 1010	Human Relations Skills <sup>~</sup> Ⓞ	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓞ	4.5

### **Major requirements for Information Technology (32.0 credit hrs.)**

#### **Courses**

INFO 1002	Introduction to Information Technology <sup>~</sup> Ⓞ	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup> Ⓞ	5.0
INFO 1023	Networking Essentials <sup>~</sup> Ⓞ	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup> Ⓞ	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup> Ⓞ	4.5
INFO 1311	Web Page Creation <sup>~</sup> Ⓞ	4.5
INFO 1620	Introduction to Database Design <sup>~</sup> Ⓞ	4.5

### **Option requirements for Information Technology (45.0-49.5 credit hrs.)**

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

#### **Data Center Management (45.0 credit hrs.)**

Information Technology – Data Center Management (ITDCO) (p. 248)

#### **Database Administration (45.0 credit hrs.)**

Information Technology – Database Administration (ITDAO) (p. 249)

#### **Desktop Support Specialist (49.5 credit hrs.)**

Information Technology – Desktop Support Specialist (ITDS1) (p. 250)

#### **Embedded Systems (45.0 credit hrs.)**

Information Technology - Embedded Systems Technology (ITESO) (p. 251)

#### **Programming for Database/Web (45.0 credit hrs.)**

Information Technology – Programming for Database/Web (ITDWO) (p. 252)

#### **Server Administration (45.0 credit hrs.)**

Information Technology – Server Administration (ITSAO) (p. 253)

#### **Web Development (45.0 credit hrs.)**

Information Technology – Web Development (ITWDO) (p. 254)

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 study 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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### General education requirements

See General education requirements for Information Technology (p. 247)

### Major requirements for Information Technology

See Major requirements for Information Technology (p. 247)

### Option requirements for Information Technology – Data Center Management (45.0 credit hrs.)

#### Courses

INFO 1009	Introduction to Cloud Computing <sup>~</sup>	4.5
INFO 1401	Introduction to Data Center Management <sup>~</sup>	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 1431	Data Center Physical Design <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2401	Applied Data Center Management	4.5
INFO 2808	Boundary Protection <sup>~</sup>	4.5
INFO 2990	Data Center Management Internship <sup>~</sup>	4.5

INFO 1421: Additional prerequisite(s) may be required.

### Suggested Guide for Courses

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 <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0

##### Second quarter

INFO 1002	Introduction to Information Technology <sup>~</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5

##### Third quarter

	English level II	4.5
INFO 1023	Networking Essentials <sup>~</sup>	4.5
INFO 1401	Introduction to Data Center Management <sup>~</sup>	4.5

##### Fourth quarter

INFO 1009	Introduction to Cloud Computing <sup>~</sup>	4.5
HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup>	4.5

#### Second Year

##### Fifth quarter

INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5

##### Sixth quarter

INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2362	Building Secure Environments <sup>~</sup>	4.5
MATH	Elective	4.5-5.0

##### Seventh quarter

INFO 1431	Data Center Physical Design <sup>~</sup>	4.5
INFO 2401	Applied Data Center Management	4.5
INFO 2808	Boundary Protection <sup>~</sup>	4.5

##### Eighth quarter

INFO 2990	Data Center Management Internship <sup>~</sup>	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 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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### General education requirements

See General education requirements for Information Technology (p. 247)

### Major requirements for Information Technology

See Major requirements for Information Technology (p. 247)

### Option requirements for Information Technology – Database Administration (45.0 credit hrs.)

#### Courses

INFO 1009	Introduction to Cloud Computing <sup>~</sup>	4.5
INFO 1011	Project Management <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2621	IBM i DB2 Database Management	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
INFO 2635	MySQL Programming <sup>~</sup>	4.5
INFO 2641	SQL Server Design and Implementation <sup>~</sup>	4.5
INFO 2940	Database and Web Programming Capstone <sup>~</sup>	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 <sup>~</sup>	4.5
INFO 2538	Systems Analysis and Design <sup>~</sup>	4.5
INFO 2640	Oracle PL/SQL Programming <sup>~</sup>	4.5
INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development <sup>~</sup>	4.5

### Suggested Guide for Courses

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 <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0

##### Second quarter

INFO 1002	Introduction to Information Technology <sup>~</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5

##### Third quarter

	English level II	4.5
INFO 1023	Networking Essentials <sup>~</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup>	4.5

##### Fourth quarter

HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
INFO 1011	Project Management <sup>~</sup>	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5

#### Second Year

##### Fifth quarter

INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
INFO 2621	IBM i DB2 Database Management	4.5

##### Sixth quarter

INFO 2635	MySQL Programming <sup>~</sup>	4.5
INFO	Elective	4.5
MATH	Elective	4.5-5.0

##### Seventh quarter

INFO 2640	Oracle PL/SQL Programming <sup>~</sup>	4.5
INFO 2641	SQL Server Design and Implementation <sup>~</sup>	4.5
INFO	Elective	4.5

##### Eighth quarter

INFO 2940	Database and Web Programming Capstone <sup>~</sup>	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 – 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	49.5
<b>Total credit hours required</b>	<b>108.5–109.0</b>

### **General education requirements**

See General education requirements for Information Technology (p. 247)

### **Major requirements for Information Technology**

See Major requirements for Information Technology (p. 247)

### **Option requirements for Desktop Support Specialist (49.5 credit hrs.)**

#### **Courses**

INFO 1120	Operating Systems II <sup>~</sup>	4.5
INFO 1240	Integrated Applications for IT Support <sup>~</sup>	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2261	Software Applications Support <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2808	Boundary Protection <sup>~</sup>	4.5
INFO 2942	Network Support Capstone <sup>~</sup>	4.5

#### **Select 9.0 credit hours from the following:**

ELEC 1100	IT Essentials PC Repair I AND	4.5
ELEC 1110	IT Essentials PC Repair II OR	4.5
INFO 1801	A+ Certified Professional I <sup>~</sup> AND	4.5
INFO 1802	A+ Certified Professional II <sup>~</sup>	4.5
INFO 2900	Special Topics in Information Technology	variable
INFO 2981	Internship	variable

### **Suggested Guide for Courses**

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 <sup>~</sup>	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup>	5.0

##### **Second quarter**

INFO 1002	Introduction to Information Technology <sup>~</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5

##### **Third quarter**

	ENGL level II	4.5
INFO 1023	Networking Essentials <sup>~</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup>	4.5

##### **Fourth quarter**

INFO 1120	Operating Systems II <sup>~</sup>	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
HMRL 1010	Human Relations Skills <sup>~</sup>	4.5

#### **Second Year**

##### **Fifth quarter**

INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
INFO 1240	Integrated Applications for IT Support <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5

##### **Sixth quarter**

INFO 2261	Software Applications Support <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
MATH	Elective	4.5-5.0

##### **Seventh quarter**

INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2808	Boundary Protection <sup>~</sup>	4.5
INFO	Elective	4.5

##### **Eighth quarter**

INFO	Elective	4.5
	Humanities/social science elective	4.5
INFO 2942	Network Support Capstone <sup>~</sup>	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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### 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. 247)

### Major requirements for Information Technology

See Major requirements for Information Technology (p. 247)

### Option requirements for Information Technology - Embedded Systems Technology (45.0 credit hrs.)

#### Courses

INFO 1009	Introduction to Cloud Computing~	4.5
INFO 1120	Operating Systems II~	4.5
INFO 1121	Linux Operating Systems II	4.5
INFO 1515	Programming for Robotics	4.5
INFO 1521	Java Programming I~	4.5
INFO 1526	C# (C-Sharp) Programming I~	4.5
INFO 2439	Mobile Application Development	4.5
INFO 2947	Embedded Systems Capstone	4.5

#### Select 9.0 credit hours from the following:

ELEC 1300	Radio Frequency Identification (RFID)	4.5
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	9.0
INFO 1112	Introduction to IBM i~	4.5
INFO 1531	Java Programming II~	4.5
INFO 1536	C# (C-Sharp) Programming II~	4.5

### Suggested Guide for Courses

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~	4.5
INFO 1003	Introduction to Computer Programming~	5.0

##### Second quarter

INFO 1002	Introduction to Information Technology~	4.5
INFO 1110	Windows Operating Systems I~	4.5
INFO 1620	Introduction to Database Design~	4.5

##### Third quarter

	English level II	4.5
INFO 1023	Networking Essentials~	4.5
INFO 1311	Web Page Creation~	4.5

##### Fourth quarter

HMRL 1010	Human Relations Skills~	4.5
INFO 1009	Introduction to Cloud Computing~	4.5
INFO 1111	Linux Operating Systems I~	4.5

#### Second Year

##### Fifth quarter

INFO 1120	Operating Systems II~	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 I~	4.5
MATH	Elective	4.5-5.0

##### Seventh quarter

INFO 1526	C# (C-Sharp) Programming I~	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	27.0–27.5
Major requirements	32.0
Option requirements	45.0
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### **General education requirements**

See General education requirements for Information Technology (p. 247)

### **Major requirements for Information Technology**

See Major requirements for Information Technology (p. 247)

### **Option requirements for Information Technology – Programming for Database/Web (45.0 credit hrs.)**

#### **Courses**

Students must take two programming language options, level I and level II courses.

#### **Option 1:**

INFO 1521	Java Programming I	4.5
INFO 1531	Java Programming II	4.5

#### **Option 2:**

INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

#### **Option 3:**

INFO 1523	Visual Basic.NET I	4.5
INFO 1533	Visual Basic.NET II	4.5

#### **Option 4:**

INFO 1526	C# (C-Sharp) Programming I	4.5
INFO 1536	C# (C-Sharp) Programming II	4.5

#### **Also required:**

INFO 2351	Introduction to XML	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2635	MySQL Programming	4.5
INFO 2940	Database and Web Programming Capstone	4.5

INFO 2940 is required for the degree; however, it is the last course taken.

### **Select 9.0 credit hours from the following:**

INFO 1009	Introduction to Cloud Computing	4.5
INFO 1011	Project Management	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 2439	Mobile Application Development	4.5
INFO 2538	Systems Analysis and Design	4.5

### **Suggested Guide for Courses**

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	4.5
INFO 1003	Introduction to Computer Programming	5.0

##### **Second quarter**

INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1620	Introduction to Database Design	4.5

##### **Third quarter**

	English level II	4.5
INFO 1023	Networking Essentials	4.5
INFO 1311	Web Page Creation	4.5

##### **Fourth quarter**

HMRL 1010	Human Relations Skills Programming level I	4.5
INFO	Elective	4.5

#### **Second Year**

##### **Fifth quarter**

INFO 2351	Introduction to XML	4.5
INFO 2630	Structured Query Language (SQL) Programming level II	4.5

##### **Sixth quarter**

INFO 2635	MySQL Programming 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	4.5
HMRL 1010	Human Relations Skills	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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### **General education requirements**

See General education requirements for Information Technology (p. 247)

### **Major requirements for Information Technology**

See Major requirements for Information Technology (p. 247)

### **Option requirements for Information Technology – Server Administration (45.0 credit hrs.)**

#### **Courses**

INFO 1120	Operating Systems II	4.5
INFO 1411	IT Troubleshooting and Recovery	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5
INFO 2145	Windows Server Administration	4.5
INFO 2351	Introduction to XML	4.5
INFO 2362	Building Secure Environments	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2942	Network Support Capstone	4.5

## **Suggested Guide for Courses**

Below is a suggested guide for students planning careers in server administration 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	Introduction to Computer Programming	5.0

#### **Second quarter**

INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1620	Introduction to Database Design	4.5

#### **Third quarter**

	ENGL level II	4.5
INFO 1023	Networking Essentials	4.5
INFO 1311	Web Page Creation	4.5

#### **Fourth quarter**

INFO 1120	Operating Systems II	4.5
INFO 1411	IT Troubleshooting and Recovery	4.5
HMRL 1010	Human Relations Skills	4.5

### **Second Year**

#### **Fifth quarter**

INFO 1111	Linux Operating Systems I	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2351	Introduction to XML	4.5

#### **Sixth quarter**

INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2142	Windows Active Directory	4.5
MATH	Elective	4.5-5.0

#### **Seventh quarter**

INFO 2145	Windows Server Administration	4.5
INFO 2362	Building Secure Environments	4.5
INFO 2805	Network and Information Security Basics	4.5

#### **Eighth quarter**

	Humanities/social science elective	4.5
INFO 2942	Network Support Capstone	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
<b>Total credit hours required</b>	<b>104.0–104.5</b>

### General education requirements

See General education requirements for Information Technology (p. 247)

### Major requirements for Information Technology

See Major requirements for Information Technology (p. 247)

### Option requirements for Information Technology – Web Development (45.0 credit hrs.)

#### Courses

INFO 1314	Photoshop <sup>~</sup>	4.5
INFO 1315	Interface Design <sup>~</sup>	4.5
INFO 1316	Dreamweaver <sup>~</sup>	4.5
INFO 2340	Internet Scripting	4.5
INFO 2351	Introduction to XML <sup>~</sup> ☉	4.5
INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2439	Mobile Application Development	4.5
INFO 2750	Introduction to Web Application Development	4.5
INFO 2944	Web Development Capstone <sup>~</sup>	4.5

#### Select one of the following courses:

DIMA 1120	Digital Design: Vector	4.5
INFO 1319	Flash <sup>~</sup>	4.5
INFO 1521	Java Programming I <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5
INFO 2900	Special Topics in Information Technology	variable
INFO 2981	Internship	variable

### Suggested Guide for Courses

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 <sup>~</sup> ☉	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup> ☉	5.0

##### Second quarter

INFO 1002	Introduction to Information Technology <sup>~</sup> ☉	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup> ☉	4.5
INFO 1620	Introduction to Database Design <sup>~</sup> ☉	4.5

##### Third quarter

	ENGL level II	4.5
INFO 1023	Networking Essentials <sup>~</sup> ☉	4.5
INFO 1311	Web Page Creation <sup>~</sup> ☉	4.5

##### Fourth quarter

HMRL 1010	Human Relations Skills <sup>~</sup> ☉	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
INFO 1315	Interface Design <sup>~</sup>	4.5

#### Second Year

##### Fifth quarter

INFO 1314	Photoshop <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup> ☉	4.5
MATH	Elective	4.5-5.0

##### Sixth quarter

	Elective	4.5
INFO 1316	Dreamweaver <sup>~</sup>	4.5
INFO 2340	Internet Scripting	4.5

##### Seventh quarter

INFO 2439	Mobile Application Development	4.5
INFO 2362	Building Secure Environments <sup>~</sup>	4.5
INFO 2750	Introduction to Web Application Development	4.5

##### Eighth quarter

INFO 2944	Web Development Capstone <sup>~</sup>	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
<b>Total credit hours required</b>	<b>49.5–55.0</b>

### **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	4.5
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See Communications course options (p. 38)

#### **Humanities/social sciences**

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

#### **Quantitative/numeracy skills**

Select one course from the following:

MATH 1220	Business Mathematics	4.5
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**

INFO 1001	Information Systems and Literacy	4.5
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### **Major requirements for Information Technology Technician (13.5 credit hrs.)**

#### **Courses**

INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1311	Web Page Creation	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. 256)

#### **Network Technician (22.5 credit hrs.)**

Information Technology – Network Technician (ITNCO) (p. 257)

#### **Security Technician (22.5 credit hrs.)**

Information Technology – Security Technician (ITSCO) (p. 258)

#### **Server Technician (22.5 credit hrs.)**

Information Technology – Server Technician (ITSTO) (p. 259)

#### **Web Author (18.0 credit hrs.)**

Information Technology – Web Author (ITWCO) (p. 260)

## **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
<b>Total credit hours required</b>	<b>54.5–55.0</b>

### **General education requirements**

See General education requirements for Information Technology Technician (p. 255)

### **Major requirements for Information Technology Technician**

See Major requirements for Information Technology Technician (p. 255)

### **Option requirements for Information Technology - Data Center Technician (23.0 credit hrs.)**

#### **Courses**

INFO 1003	Introduction to Computer Programming <sup>~</sup> Ⓢ	5.0
INFO 1023	Networking Essentials <sup>~</sup> Ⓢ	4.5
INFO 1401	Introduction to Data Center Management <sup>~</sup>	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers as data center technicians after one year of full-time study.

#### **First Year**

##### **First quarter**

	ENGL level I	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> Ⓢ	4.5
MATH	Elective	4.5-5.0

##### **Second quarter**

INFO 1002	Introduction to Information Technology <sup>~</sup> Ⓢ	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup> Ⓢ	5.0
INFO 1110	Windows Operating Systems I <sup>~</sup> Ⓢ	4.5

##### **Third quarter**

INFO 1023	Networking Essentials <sup>~</sup> Ⓢ	4.5
INFO 1311	Web Page Creation <sup>~</sup> Ⓢ	4.5
INFO 1401	Introduction to Data Center Management <sup>~</sup>	4.5

##### **Fourth quarter**

	Humanities/social science elective	4.5
INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	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 – Network Technician (ITNCO)

**Award:** Certificate of achievement

**Program location:** Fort Omaha Campus, Sarpy Center, Online

Microcomputers have become an integral part of today's office and home environment. This certificate of achievement option teaches the foundation skills necessary to work in and support a networked environment.

### Graduation Requirements

General education	18.0–18.5
Major requirements	13.5
Option requirements	22.5
<b>Total credit hours required</b>	<b>54.0–54.5</b>

### General education requirements

See General education requirements for Information Technology Technician (p. 255)

### Major requirements for Information Technology Technician

See General education requirements for Information Technology Technician (p. 255)

### Option requirements for Information Technology – Network Technician (22.5 credit hrs.)

#### Courses

INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 1411	IT Troubleshooting and Recovery	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5

#### Select one course from the following:

INFO 2261	Software Applications Support	4.5
INFO 2362	Building Secure Environments	4.5
INFO 2805	Network and Information Security Basics	4.5

### Suggested Guide for Courses

Below is a suggested guide for students planning careers as network technicians after one year of full-time study.

#### First Year

##### First quarter

	ENGL level I	4.5
MATH	Elective	4.5-5.0
INFO 1001	Information Systems and Literacy	4.5

##### Second quarter

INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1311	Web Page Creation	4.5

##### Third quarter

INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 1411	IT Troubleshooting and Recovery	4.5

##### Fourth quarter

INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO	Elective	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
<b>Total credit hours required</b>	<b>54.0–54.5</b>

### General education requirements

See General education requirements for Information Technology Technician (p. 255)

### Major requirements for Information Technology Technician

See Major requirements for Information Technology Technician (p. 255)

### Option requirements for Information Technology – Security Technician (22.5 credit hrs.)

#### Courses

INFO 2362	Building Secure Environments~Ⓞ	4.5
INFO 2805	Network and Information Security Basics~Ⓞ	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing~Ⓞ	4.5
INFO 2808	Boundary Protection~Ⓞ	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics~Ⓞ	4.5

### Suggested Guide for Courses

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~Ⓞ	4.5
INFO 1110	Windows Operating Systems I~Ⓞ	4.5
	ENGL level I	4.5

##### Second quarter

INFO 1002	Introduction to Information Technology~Ⓞ	4.5
INFO 1311	Web Page Creation~Ⓞ	4.5
INFO 2805	Network and Information Security Basics~Ⓞ	4.5

##### Third quarter

MATH	Elective	4.5-5.0
INFO 2362	Building Secure Environments~Ⓞ	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing~Ⓞ	4.5

##### Fourth quarter

	Humanities/social science elective	4.5
INFO 2808	Boundary Protection~Ⓞ	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics~Ⓞ	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
<b>Total credit hours required</b>	<b>54.0–54.5</b>

### General education requirements

See General education requirements for Information Technology Technician (p. 255)

### Major requirements for Information Technology Technician (22.5 credit hrs.)

See Major requirements for Information Technology Technician (p. 255)

### Option requirements for Information Technology – Server Technician (22.5 credit hrs.)

#### Courses

INFO 1023	Networking Essentials <sup>~</sup> <sup>☑</sup>	4.5
INFO 1120	Operating Systems II <sup>~</sup>	4.5
INFO 2135	Network Infrastructure <sup>~</sup>	4.5
INFO 2142	Windows Active Directory <sup>~</sup>	4.5

#### Select one course from the following:

INFO 1411	IT Troubleshooting and Recovery <sup>~</sup>	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2145	Windows Server Administration <sup>~</sup>	4.5

### Suggested Guide for Courses

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 <sup>~</sup> <sup>☑</sup>	4.5
	ENGL level I	4.5
MATH	Elective	4.5-5.0

##### Second quarter

INFO 1002	Introduction to Information Technology <sup>~</sup> <sup>☑</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup> <sup>☑</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup> <sup>☑</sup>	4.5

##### Third quarter

	Humanities/social science elective	4.5
INFO 1023	Networking Essentials <sup>~</sup> <sup>☑</sup>	4.5
INFO 1120	Operating Systems II <sup>~</sup>	4.5

##### Fourth quarter

INFO 2135	Network Infrastructure <sup>~</sup>	4.5
INFO 2142	Windows Active Directory <sup>~</sup>	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
<b>Total credit hours required</b>	<b>49.5–50.0</b>

### General education requirements

See General education requirements for Information Technology Technician (p. 255)

### Major requirements for Information Technology Technician

See Major requirements for Information Technology Technician (p. 255)

### Option requirements for Information Technology – Web Author (18.0 credit hrs.)

#### Courses

INFO 1314	Photoshop <sup>~</sup>	4.5
INFO 1315	Interface Design <sup>~</sup>	4.5
INFO 1316	Dreamweaver <sup>~</sup>	4.5
INFO 2340	Internet Scripting	4.5

INFO 2340: Additional prerequisite(s) may be required.

### Suggested Guide for Courses

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 <sup>~</sup>	4.5
	Humanities/social science elective	4.5
	English level I	4.5

##### Second quarter

INFO 1002	Introduction to Information Technology <sup>~</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup>	4.5
INFO 1311	Web Page Creation <sup>~</sup>	4.5

##### Third quarter

MATH	Elective	4.5-5.0
INFO 1314	Photoshop <sup>~</sup>	4.5
INFO 1315	Interface Design <sup>~</sup>	4.5

##### Fourth quarter

INFO 1316	Dreamweaver <sup>~</sup>	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.

## Transitional Object-Oriented Programming (ITOCC)

**Award:** Career certificate

**Program location:** Fort Omaha Campus, Online

This career certificate provides traditional programmers with training in the object-oriented programming environment. Upon completion, students program in one language and are able to expand to other object-oriented programming languages.

### Requirements for Transitional Object-Oriented Programming career certificate (25.5 credit hrs.)

#### Courses

INFO 1007	Introduction to Object-Oriented Computer Programming <sup>~</sup>	3.0
INFO 1620	Introduction to Database Design <sup>~</sup>	4.5
INFO 2351	Introduction to XML <sup>~</sup>	4.5
INFO 2630	Structured Query Language (SQL) <sup>~</sup>	4.5

INFO 1620, INFO 2351, INFO 2630: Additional prerequisite(s) may be required.

#### Select one of the following pair of languages:

Additional prerequisite(s) may be required.

##### Pair 1:

INFO 1521	Java Programming I <sup>~</sup>	4.5
INFO 1531	Java Programming II <sup>~</sup>	4.5

##### Pair 2:

INFO 1523	Visual Basic.NET I <sup>~</sup>	4.5
INFO 1533	Visual Basic.NET II <sup>~</sup>	4.5

##### Pair 3:

INFO 1526	C# (C-Sharp) Programming I <sup>~</sup>	4.5
INFO 1536	C# (C-Sharp) Programming II <sup>~</sup>	4.5

## 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 from 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 entry-level 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 I

### Health Information Technology Professional (HITP)

The implementation, configuration, and support of health information systems is 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

## Program Differences

	<b>Healthcare Information and Administration (HCIA)</b>	<b>Health Information Management Systems (HIMS)</b>	<b>Health Information Technology Professional (HITP)</b>
<b>Focus</b>	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
<b>Potential Credential</b>	Registered Health Information Technician (RHIT)* 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 Technology (CPHIT) Certified Professional in Health Information Exchange (CPHIE) Certified Professional in Electronic Health Records (CPEHR) Health Information Technology Professional (HIT Pro) CompTIA Healthcare IT
<b>Title Samples</b>	Health data analyst Clinical coder Clinical documentation specialist Document improvement specialist Cancer registrar Reimbursement specialist Release of information specialist Compliance specialist EHR super user Revenue cycle coordinator Performance improvement analyst	Coder and biller Outpatient coder Reimbursement specialist Medical office manager Medical transcriptionist 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
<b>Employer</b>	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

\*Graduates of the HCIA program will become eligible to sit for the RHIT exam once the program earns accreditation from CAHIIM.

## Healthcare Information and Administration

**Degree:** Associate in Applied Science

Health Information and Administration

### Healthcare Information and Administration (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 health care 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
<b>Total credit hours required</b>	<b>108.5</b>

#### General education requirements (27.0 credit hrs.)

##### Communications

English level I	4.5
English level II	4.5

##### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

##### Quantitative/numeracy skills

MATH 1310 Intermediate Algebra	4.5
MATH 1310 or higher level MATH	

##### Other

HMRL 1010 Human Relations Skills	4.5
INFO 1001 Information Systems and Literacy	4.5

#### Major requirements for Healthcare Information and Administration (47.0 credit hrs.)

##### Courses

HCIA 1010 Healthcare Delivery Systems	4.5
HCIA 1020 Healthcare Data and Electronic Health Records	4.5
HCIA 1030 Healthcare Data Management and Use	4.5
HCIA 2010 Healthcare Statistics	4.5
HCIA 2020 Health Law, Privacy, and Ethics	4.5
HCIA 2030 Performance Improvement	4.5
HCIA 2421 Clinical Coding I	4.5
HCIA 2431 Clinical Coding II	4.5
HCIA 2432 Clinical Coding III	4.5
HCIA 2982 HCIA Capstone	4.5
HCIA 2983 HCIA Practicum	2.0

#### Option requirements for Healthcare Information and Administration (34.5 credit hrs.)

##### Courses

HIMS 1120 Medical Terminology I	4.5
HIMS 1130 Medical Terminology II	4.5
HIMS 1180 Disease Processes	4.5
HIMS 1310 Introduction to Anatomy and Physiology	4.5
HIMS 1410 Introduction to Insurance	3.0
HIMS 2110 Principles of Management in Healthcare	4.5
HIMS 2155 Fundamentals of Pharmacology	4.5
HITP 2040 Information Systems in Healthcare	4.5

The HCIA program has special admission requirements. Visit the HCIA web page at [www.mccneb.edu/hica](http://www.mccneb.edu/hica) 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
<b>Total credit hours required</b>	<b>96.0–97.5</b>

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 and ENGL 1240 are suggested.

#### Social sciences

Select one course from the following:

ECON 1000	Macroeconomics	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

#### Quantitative/numeracy skills

MATH 1220	Business Mathematics	4.5
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MATH 1220 or higher level MATH course

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### Major requirements for Health Information Management Systems (48.0 credit hrs.)

#### Courses

HIMS 1111	Healthcare Careers	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2110	Principles of Management in Healthcare	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2980	Medical Office Applications	4.5
HIMS 2981	Internship	4.0
HITP 1115	Electronic Health Records (EHR) Lab Experience	4.5

### 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. 265)

#### Medical Office Management (21.0 credit hrs.)

Medical Office Management (HIMO1) (p. 266)

#### Medical Language Specialist II (22.5 credit hrs.)

Medical Language Specialist II (HIMLO) (p. 267)

## **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
<b>Total credit hours required</b>	<b>96.0</b>

### **General education requirements**

See General education requirements for Health Information Management Systems (p. 264)

### **Major requirements for Health Information Management Systems**

See Major requirements for Health Information Management Systems (p. 264)

### **Requirements for Health Information Management Systems – Medical Coding and Billing option (21.0 credit hrs.)**

#### **Courses**

HIMS 1180	Disease Processes	4.5
HIMS 1410	Introduction to Insurance	3.0
HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5

### **Suggested Course Guide**

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

#### **First Year**

##### **First quarter**

	English level I	4.5
HIMS 1111	Healthcare Careers	4.5
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

	English level II	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5

##### **Third quarter**

HIMS 1130	Medical Terminology II	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HITP 1115	Electronic Health Records (EHR) Lab Experience	4.5

##### **Fourth quarter**

HIMS 1180	Disease Processes	4.5
MATH 1220	Business Mathematics	4.5
HIMS 1410	Introduction to Insurance	3.0

#### **Second Year**

##### **Fifth quarter**

HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2110	Principles of Management in Healthcare	4.5
HIMS 2400	Introduction to Coding and Billing	4.5

##### **Sixth quarter**

HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2420	Coding and Billing I	4.5
HMRL 1010	Human Relations Skills	4.5

##### **Seventh quarter**

HIMS 2430	Coding and Billing II	4.5
	Social sciences elective	4.5

##### **Eighth quarter**

HIMS 2981	Internship	4.0
HIMS 2980	Medical Office Applications	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 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
<b>Total credit hours required</b>	<b>96.0</b>

### **General education requirements**

See General education requirements for Health Information Management Systems (p. 264)

### **Major requirements for Health Information Management Systems**

See Major requirements for Health Information Management Systems (p. 264)

### **Requirements for Health Information Management Systems –Medical Office Management option (21.0 credit hrs.)**

#### **Courses**

HIMS 1210	Medical Office Applications	4.5
HIMS 1410	Introduction to Insurance	3.0
HIMS 2220	Medical Transcription I	4.5
HITP 1005	Introduction to Electronic Health Records	4.5
INFO 1213	Database Fundamentals	4.5

## **Suggested Course Guide**

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**

	English level I	4.5
HIMS 1111	Healthcare Careers	4.5
INFO 1001	Information Systems and Literacy	4.5

#### **Second quarter**

	English level II	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5

#### **Third quarter**

HIMS 1130	Medical Terminology II	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HITP 1005	Introduction to Electronic Health Records	4.5

#### **Fourth quarter**

HIMS 1210	Medical Office Applications	4.5
MATH 1220	Business Mathematics	4.5
HIMS 1410	Introduction to Insurance	3.0

### **Second Year**

#### **Fifth quarter**

HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2110	Principles of Management in Healthcare	4.5
HIMS 2400	Introduction to Coding and Billing	4.5

#### **Sixth quarter**

HITP 1115	Electronic Health Records (EHR) Lab Experience	4.5
HIMS 2220	Medical Transcription I	4.5
HMRL 1010	Human Relations Skills	4.5

#### **Seventh quarter**

INFO 1213	Database Fundamentals	4.5
	Social sciences elective	4.5

#### **Eighth quarter**

HIMS 2981	Internship	4.0
HIMS 2980	Medical Office Applications	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 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
<b>Total credit hours required</b>	<b>97.5</b>

### General education requirements

See General education requirements for Health Information Management Systems (p. 264)

### Major requirements for Health Information Management Systems

See Major requirements for Health Information Management Systems (p. 264)

### Requirements for Health Information Management Systems – Medical Language Specialist II option (22.5 credit hrs.)

#### Courses

HIMS 1180	Disease Processes	4.5
HIMS 1210	Medical Office Applications	4.5
HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2230	Medical Transcription II	4.5

### Suggested Course Guide

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

	English level I	4.5
HIMS 1111	Healthcare Careers	4.5
INFO 1001	Information Systems and Literacy	4.5

##### Second quarter

	English level II	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5

##### Third quarter

HIMS 1130	Medical Terminology II	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HITP 1115	Electronic Health Records (EHR) Lab Experience	4.5

##### Fourth quarter

HIMS 1180	Disease Processes	4.5
MATH 1220	Business Mathematics	4.5
HIMS 1310	Introduction to Anatomy and Physiology	4.5

#### Second Year

##### Fifth quarter

HIMS 1210	Medical Office Applications	4.5
HIMS 2110	Principles of Management in Healthcare	4.5
HIMS 2400	Introduction to Coding and Billing	4.5

##### Sixth quarter

HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2220	Medical Transcription I	4.5
HMRL 1010	Human Relations Skills	4.5

##### Seventh quarter

HIMS 2230	Medical Transcription II	4.5
	Social sciences elective	4.5

##### Eighth quarter

HIMS 2981	Internship	4.0
HIMS 2980	Medical Office Applications	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
<b>Total credit hours required</b>	<b>52.5-54.0</b>

### General education requirements (13.5 credit hrs.)

#### Communications

English level I 4.5

See Communications course options (p. 38)

#### Quantitative/numeracy skills

MATH 1220 Business Mathematics 4.5

Take MATH 1220 or higher level MATH

#### Other

INFO 1001 Information Systems and Literacy 4.5

### Major requirements for Medical Office (18.0 credit hrs.)

#### Courses

HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1310	Introduction to Anatomy and Physiology	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. 269)

#### **Medical Office Assistant (22.5 credit hrs.)**

Medical Office Assistant (MOOA1) (p. 270)

#### **Medical Language Specialist I**

Medical Language Specialist I (MOLC1) (p. 271)

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
<b>Total credit hours required</b>	<b>52.5</b>

### **General education requirements**

See General education requirements for Medical Office (p. 268)

### **Major requirements for Medical Office**

See Major requirements for Medical Office (p. 268)

### **Option requirements for Medical Office – Medical Coding and Billing Assistant (21.0 credit hrs.)**

#### **Courses**

HIMS 1180	Disease Processes	4.5
HIMS 1410	Introduction to Insurance	3.0
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5

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.

### **Suggested Course Guide**

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 I	4.5
	ENGL level I	4.5
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1410	Introduction to Insurance	3.0

##### **Third quarter**

HIMS 1180	Disease Processes	4.5
HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2400	Introduction to Coding and Billing	4.5

##### **Fourth quarter**

HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5
MATH 1220	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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements**

See General education requirements for Medical Office (p. 268)

### **Major requirements for Medical Office**

See Major requirements for Medical Office (p. 268)

### **Major requirements for Medical Office – Medical Office Assistant (22.5 credit hrs.)**

#### **Courses**

HIMS 1210	Medical Office Applications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HITP 1005	Introduction to Electronic Health Records	4.5

### **Suggested Course Guide**

Below is a suggested guide for students planning careers as medical office assistants after one year of full-time study.

#### **First Year**

##### **First quarter**

HIMS 1120	Medical Terminology I	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

	ENGL level I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1210	Medical Office Applications	4.5

##### **Third quarter**

HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 1310	Introduction to Anatomy and Physiology	4.5
HITP 1005	Introduction to Electronic Health Records	4.5

##### **Fourth quarter**

HIMS 2220	Medical Transcription I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
MATH 1220	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 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
<b>Total credit hours required</b>	<b>54.0</b>

### **General education requirements**

See General education requirements for Medical Office (p. 268)

### **Major requirements for Medical Office**

See Major requirements for Medical Office (p. 268)

### **Option requirements for Medical Office – Medical Language Specialist I (22.5 credit hrs.)**

#### **Courses**

HIMS 1210	Medical Office Applications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2230	Medical Transcription II	4.5

### **Suggested Course Guide**

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	Medical Terminology I	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
INFO 1001	Information Systems and Literacy	4.5

##### **Second quarter**

HIMS 1130	Medical Terminology II	4.5
HIMS 1210	Medical Office Applications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5

##### **Third quarter**

HIMS 1310	Introduction to Anatomy and Physiology	4.5
HIMS 2155	Fundamentals of Pharmacology	4.5
HIMS 2220	Medical Transcription I	4.5

##### **Fourth quarter**

	ENGL level I	4.5
HIMS 2230	Medical Transcription II	4.5
MATH 1220	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.

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.

## Health Information Technology Professional

**Degree:** Associate in Applied Science

Health Information Technology Professional

**Career Certificate:**

Health Information Technology

## Health Information Technology Professional (HITAS)

**Award:** Associate in applied science degree

**Program location:** Online

The implementation, configuration, and support of health information systems is 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
<b>Total credit hours required</b>	<b>108.5</b>

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.

### General education requirements (27.0 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Social sciences

Social sciences	4.5
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See Social Sciences options (p. 38)

#### Quantitative/numeracy skills

MATH 1220	Business Mathematics	4.5
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#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

## Major requirements for Health Information Technology Professional (63.5 credit hrs.)

### Courses

HIMS 1150	Introduction to Medical Law and Ethics	4.5
HITP 1010	Introduction to Health Information Technology	4.5
HITP 1145	Healthcare Applications I	4.5
HITP 1510	Working with EHR Systems	4.5
HITP 1616	Health Information Exchange	4.5
HITP 2940	Health IT Capstone	4.5
	OR	
HITP 2981	Health IT Internship	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1011	Project Management	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1111	Linux Operating Systems I	4.5
INFO 1620	Introduction to Database Design	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2808	Boundary Protection	4.5

HITP 2940 or HITP 2981 are the final courses 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 I	4.5
HITP 1115	Electronic Health Records (EHR) Lab Experience	4.5
HITP 1310	Principles of Healthcare Management	4.5
HITP 1415	Workflow Redesign I	4.5
HITP 1511	Workflow Redesign II	4.5
HITP 1512	Usability and Health Information Systems	4.5
HITP 1615	Install, Maintain, and Configure EHRs	4.5
HITP 1701	Training EHR/HIT Users	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2439	Mobile Application Development	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing	4.5

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.

## Suggested Course Guide

Below is a suggested guide for students planning careers in health information technology after two years of full-time study.

### First Year

#### First quarter

	Gen. Ed.	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup> 📱	4.5
INFO 1003	Introduction to Computer Programming <sup>~</sup> 📱	5.0

#### Second quarter

HITP 1010	Introduction to Health Information Technology <sup>~</sup>	4.5
INFO 1110	Windows Operating Systems I <sup>~</sup> 📱	4.5
INFO 1620	Introduction to Database Design <sup>~</sup> 📱	4.5

#### Third quarter

HIMS 1150	Introduction to Medical Law and Ethics <sup>~</sup> 📱	4.5
HITP 1145	Healthcare Applications I <sup>~</sup> 📱	4.5
INFO 1023	Networking Essentials <sup>~</sup> 📱	4.5

#### Fourth quarter

	Gen. Ed.	4.5
HITP 1510	Working with EHR Systems <sup>~</sup>	4.5
INFO 1011	Project Management <sup>~</sup>	4.5

### Second Year

#### Fifth quarter

HITP 1616	Health Information Exchange <sup>~</sup>	4.5
INFO 1111	Linux Operating Systems I <sup>~</sup>	4.5
MATH 1220	Business Mathematics <sup>~</sup>	4.5

#### Sixth quarter

HMRL 1010	Human Relations Skills <sup>~</sup> 📱	4.5
INFO 2805	Network and Information Security Basics <sup>~</sup>	4.5
	Option	4.5

#### Seventh quarter

INFO 2805	Network and Information Security Basics <sup>~</sup>	4.5
	Option	4.5
	Option	4.5

#### Eighth quarter

HITP 2940	Health IT Capstone	4.5
	OR	
HITP 2981	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	Introduction to Health Information Technology <sup>~</sup>	4.5
HITP 1310	Principles of Healthcare Management <sup>~</sup>	4.5
HITP 1415	Workflow Redesign I <sup>~</sup>	4.5

#### Select three courses from the following:

HITP 1510	Working with EHR Systems <sup>~</sup>	4.5
HITP 1511	Workflow Redesign II <sup>~</sup>	4.5
HITP 1512	Usability and Health Information Systems <sup>~</sup>	4.5
HITP 1615	Install, Maintain, and Configure EHRs <sup>~</sup>	4.5
HITP 1616	Health Information Exchange <sup>~</sup>	4.5
HITP 1701	Training EHR/HIT Users <sup>~</sup>	4.5

## 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

Microcomputer Office Technology - Information Technology

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
<b>Total credit hours required</b>	<b>97.5-99.0</b>

## General education requirements (27.0 credit hrs.)

### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

ENGL 1220 Technical Writing and ENGL 1230 Oral and Written Reports are recommended.

### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

### Quantitative/numeracy skills

MATH 1220	Business Mathematics <sup>~</sup>	4.5
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Take MATH 1220 or higher level MATH course

### Other

HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5

## Major requirements for Office Technology (54.0 credit hrs.)

### Courses

INFO 1008	Business Office Communications <sup>~</sup>	4.5
INFO 1012	Electronic Filing and Calculating <sup>~</sup>	4.5
INFO 1013	Keyboard Skillbuilding <sup>~</sup>	2.0
INFO 1210	Microsoft Word I <sup>~</sup>	4.5
INFO 1212	Spreadsheets <sup>~</sup>	4.5
INFO 1213	Database Fundamentals <sup>~</sup>	4.5
INFO 1214	Business Presentations <sup>~</sup>	4.5
INFO 1215	Document Processing <sup>~</sup>	4.5
INFO 1219	Professional Practices <sup>~</sup>	4.5
INFO 1220	Microsoft Word II <sup>~</sup>	4.5
INFO 2240	Office Technology Capstone <sup>~</sup>	5.0
INFO 2260	Workplace Technologies <sup>~</sup>	4.5
INFO 2980	Office Technology Practicum	2.0
	OR	
INFO 2981	Internship	variable

## Option requirements for Office Technology (16.5-18.0 credit hrs.)

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

### Administrative Assistant (18.0 credit hrs.)

Office Technology – Administrative Assistant (OTAAO) (p. 275)

### Office Professional (16.5-18.0 credit hrs.)

Office Technology – Office Professional (OTOPO) (p. 276)

## **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
<b>Total credit hours required</b>	<b>99.0</b>

### **General education requirements**

See General education requirements for Office Technology (p. 274)

### **Major requirements for Office Technology**

See Major requirements for Office Technology (p. 274)

### **Option requirements for Office Technology – Administrative Assistant (18.0 credit hrs.)**

#### **Courses**

BSAD 1000	Introduction to Business	4.5
BSAD 1100	Business Law I	4.5
BSAD 1600	Principles of Supervision	4.5
WORK 1400	Employability Skills	4.5

For WORK 1400, register for a section that is 4.5 credit hours.

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers as administrative assistants 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	Business Mathematics	4.5

##### **Second quarter**

	English level II	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1210	Microsoft Word I	4.5

##### **Third quarter**

BSAD 1000	Introduction to Business	4.5
INFO 1008	Business Office Communications	4.5
INFO 1220	Microsoft Word II	4.5

##### **Fourth quarter**

BSAD 1100	Business Law I	4.5
INFO 1219	Professional Practices	4.5
INFO 1212	Spreadsheets	4.5

#### **Second Year**

##### **Fifth quarter**

INFO 1213	Database Fundamentals	4.5
INFO 1214	Business Presentations	4.5
INFO 1215	Document Processing	4.5
WORK 1400	Employability Skills	variable

##### **Sixth quarter**

BSAD 1600	Principles of Supervision	4.5
INFO 2240	Office Technology Capstone	5.0
INFO 2260	Workplace Technologies	4.5

##### **Seventh quarter**

HMRL 1010	Human Relations Skills	4.5
	Humanities/social sciences elective	4.5
INFO 2980	Office Technology Practicum	2.0
	OR	
INFO 2981	Internship	variable

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
<b>Total credit hours required</b>	<b>97.5–99.0</b>

### General education requirements

See General education requirements for Office Technology (p. 274)

### Major requirements for Office Technology

See Major requirements for Office Technology (p. 274)

### Option requirements for Office Technology - Office Professional (16.5-18.0 credit hrs.)

#### Courses

INFO 1010	Customer Service Skills <sup>~</sup>	4.5
INFO 1011	Project Management <sup>~</sup>	4.5
INFO 1317	Microsoft Web Editor	4.5
<b>Select one course from the following:</b>		
ACCT 1050	Bookkeeping <sup>~</sup>	3.0
HMRL 1050	Leadership: Training and Skill Development	4.5
SPAN 1050	Spanish for Business I <sup>~</sup>	4.5

### Suggested Guide for Courses

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 <sup>~</sup>	4.5
INFO 1013	Keyboard Skillbuilding <sup>~</sup>	2.0
MATH 1220	Business Mathematics <sup>~</sup>	4.5

##### Second quarter

	English level II	4.5
INFO 1012	Electronic Filing and Calculating <sup>~</sup>	4.5
INFO 1210	Microsoft Word I <sup>~</sup>	4.5

##### Third quarter

INFO 1008	Business Office Communications <sup>~</sup>	4.5
INFO 1010	Customer Service Skills <sup>~</sup>	4.5
INFO 1220	Microsoft Word II <sup>~</sup>	4.5

##### Fourth quarter

INFO 1011	Project Management <sup>~</sup>	4.5
INFO 1212	Spreadsheets <sup>~</sup>	4.5
INFO 1219	Professional Practices <sup>~</sup>	4.5

#### Second Year

##### Fifth quarter

INFO 1214	Business Presentations <sup>~</sup>	4.5
INFO 1215	Document Processing <sup>~</sup>	4.5
INFO 1317	Microsoft Web Editor	4.5

##### Sixth quarter

INFO 1213	Database Fundamentals <sup>~</sup>	4.5
INFO 2240	Office Technology Capstone <sup>~</sup>	5.0
INFO 2260	Workplace Technologies <sup>~</sup>	4.5

##### Seventh quarter

HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
	Humanities/social sciences elective	4.5
INFO 2980	Office Technology Practicum	2.0
	OR	
INFO 2981	Internship	variable

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.

## Microcomputer Office Technology

### Certificate of Achievement:

Microcomputer Office Technology

Microcomputer Office Technology - Information Technology

Microcomputer Office Technology - Office Applications

## Microcomputer Office Technology (OSTC1)

**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	18.0
Major requirements	20.0
Option requirements	13.5
<b>Total credit hours required</b>	<b>51.5</b>

### 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 4.5

See Communications course options (p. 38)

ENGL 1220 is recommended.

#### Humanities/social sciences

Humanities/social sciences 4.5

See Humanities/social sciences course options (p. 38)

#### Quantitative/numeracy skills

MATH 1220 Business Mathematics 4.5

Take MATH 1220 or higher level MATH

#### Other

INFO 1001 Information Systems and Literacy 4.5

### Major requirements for Microcomputer Office Technology (20.0 credit hrs.)

#### Courses

INFO 1013	Keyboard Skillbuilding	2.0
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheets	4.5
INFO 1214	Business Presentations	4.5
INFO 1220	Microsoft Word II	4.5

### Option requirements for Microcomputer Office Technology (13.5 credit hrs.)

The Microcomputer Office Technology option specializations are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

#### Information Technology (13.5 credit hrs.)

Microcomputer Office Technology – Information Technology (OTTCO) (p. 278)

#### Office Applications (13.5 credit hrs.)

Microcomputer Office Technology – Office Applications (OTGC1) (p. 279)

## **Microcomputer Office Technology – Information Technology (OTTCO)**

**Award:** Certificate of achievement

**Program location:** Fort Omaha Campus, South Omaha Campus, Online

This certificate of achievement is for students desiring information about microcomputers and their use in business. Emphasis is placed on gaining practical experience with the use of software in a technical office environment.

### **Graduation Requirements**

General education	18.0
Major requirements	20.0
Option requirements	13.5
<b>Total credit hours required</b>	<b>51.5</b>

### **General education requirements**

See General education requirements for Microcomputer Office Technology (p. 277)

### **Major requirements for Microcomputer Office Technology**

See Major requirements for Microcomputer Office Technology (p. 277)

### **Option requirements for Microcomputer Office Technology – Information Technology (13.5 credit hrs.)**

#### **Courses**

INFO 1010	Customer Service Skills~Ⓞ	4.5
INFO 1213	Database Fundamentals~Ⓞ	4.5
INFO 1317	Microsoft Web Editor	4.5

### **Suggested Guide for Courses**

Below is a suggested guide for students planning careers in information technology 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 1010	Customer Service Skills~Ⓞ	4.5
MATH 1220	Business Mathematics~Ⓞ	4.5

##### **Second quarter**

INFO 1212	Spreadsheets~Ⓞ	4.5
INFO 1210	Microsoft Word I~Ⓞ	4.5
INFO 1214	Business Presentations~Ⓞ	4.5

##### **Third quarter**

MATH 1220	Business Mathematics~Ⓞ	4.5
INFO 1220	Microsoft Word II~Ⓞ	4.5
INFO 1317	Microsoft Web Editor	4.5

##### **Fourth quarter**

	Humanities/social sciences elective	4.5
INFO 1213	Database Fundamentals~Ⓞ	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.

## 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	18.0
Major requirements	20.0
Option requirements	13.5
<b>Total credit hours required</b>	<b>51.5</b>

### General education requirements

See General education requirements for Microcomputer Office Technology (p. 277)

### Major requirements for Microcomputer Office Technology

See Major education requirements for Microcomputer Office Technology (p. 277)

### Option requirements for Microcomputer Office Technology – Office Applications (13.5 credit hrs.)

#### Courses

INFO 1008	Business Office Communications~	4.5
INFO 1012	Electronic Filing and Calculating~	4.5
INFO 1215	Document Processing~	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~	2.0
MATH 1220	Business Mathematics~	4.5

##### Second quarter

INFO 1008	Business Office Communications~	4.5
INFO 1012	Electronic Filing and Calculating~	4.5
INFO 1210	Microsoft Word I~	4.5

##### Third quarter

INFO 1212	Spreadsheets~	4.5
INFO 1214	Business Presentations~	4.5
INFO 1220	Microsoft Word II~	4.5

##### Fourth quarter

	Humanities/social sciences elective	4.5
INFO 1215	Document Processing~	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)

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~	4.5
HMRL 1010	Human Relations Skills~	4.5
	OR	
WORK 1400	Employability Skills~	4.5
INFO 1001	Information Systems and Literacy~	4.5
INFO 1008	Business Office Communications~	4.5
INFO 1010	Customer Service Skills~	4.5

## INTERDISCIPLINARY STUDIES

In the 21st century, we find ourselves 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 between 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
<b>Total credit hours required</b>	<b>103.0</b>

#### General education requirements (27.0 credit hrs.)

##### Communications

ENGL 1220	Technical Writing	4.5
ENGL 1240	Oral and Written Reports	4.5

##### Humanities/social sciences

Humanities/social sciences	4.5
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See Humanities/social sciences course options (p. 38)

##### Quantitative/Numeracy Skills

MATH 1240	Applied Mathematics	4.5
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##### Other

HMRL 1010	Human Relations Skills	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	Electricity and Electronics	6.0
ELTR 1200	Basic Electricity	6.5
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
HVAC 1010	Refrigeration Service Principles and Basic Automatic Controls	6.0
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0
INCT 2060	Mechanical Power Systems	4.0
INCT 2231	Programmable Logic Controllers I	4.5
INFO 1002	Introduction to Information Technology	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Windows Operating Systems I	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 1431	Data Center Physical Design	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 the 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.

## Our Programs

### Career Certificate:

Professional Skills (PSKSD)

## **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, career-path employment. **NOTE:** *This career certificate leads to a general studies degree.*

### **Requirements for Professional Skills career certificate (25.5 credit hrs.)**

#### **Courses**

ENGL 1210	Applied Communications	4.5
MATH 1220	Business Mathematics <sup>~</sup> Ⓞ	4.5
WORK 1400	Employability Skills <sup>~</sup> Ⓞ	variable
WORK 1410	Secrets to Business Success <sup>~</sup> Ⓞ	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.

## Our 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. 300)

# 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.

## Our 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

## Our Programs

Early Childhood Educator (ECAS1) (p. 286)

Early Childhood Educator – Assistant (ECTC1) (p. 288)

Early Childhood Generalist (ECGSD) (p. 289)

Early Childhood Spanish (ECSSD) (p. 289)

Early Childhood Sign Language (ECSLD) (p. 290)

Early Childhood Family/Group Home Specialist (ECGHD) (p. 290)

## Transfer Degree Options

Associate in Arts degree: Liberal Arts/Academic Transfer (LATAA) (p. 298)

Associate in General Studies: General Studies (GSAAS) (p. 183)

## 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. 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 students enrolled in practicum courses. This practice is consistent with Nebraska state statutes.

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 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 center 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.

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	31.5
Major requirements	75.0
<b>Total credit hours required</b>	<b>106.5</b>

### General education requirements (31.5 credit hrs.)

#### Communications

English level I	4.5
English level II	4.5

See Communications course options (p. 38)

#### Social sciences

PSYC 1120	Human Growth and Development <sup>~</sup>	4.5
	Social sciences	4.5

See Social Sciences options (p. 38)

#### Quantitative/numeracy skills

Select one course from the following:

MATH 1220	Business Mathematics <sup>~</sup>	4.5
MATH 1310	Intermediate Algebra <sup>~</sup>	4.5

Students planning to transfer to a four-year program should select MATH 1310

#### Other

HMRL 1010	Human Relations Skills <sup>~</sup>	4.5
INFO 1001	Information Systems and Literacy <sup>~</sup>	4.5

### Major requirements for Early Childhood Educator (75.0 credit hrs.)

#### Courses

ECED 1050	Expressive Arts <sup>~</sup>	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>~</sup>	4.5
ECED 1120	Preschool Child Development <sup>~</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>~</sup>	4.5
ECED 1160	Early Language and Literacy <sup>~</sup>	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant and Toddler Practicum	3.0
ECED 1230	School-Age Child Development and Programming <sup>~</sup>	3.0
ECED 1240	Preschool- and School-Age Practicum	3.0
ECED 1260	Children's Health and Nutrition <sup>~</sup>	4.5
ECED 2050	Children with Exceptionalities <sup>~</sup>	4.5
ECED 2060	Early Childhood Education Curriculum Planning	4.5
ECED 2061	Child Guidance Techniques	4.5
ECED 2070	Family and Community Relationships <sup>~</sup>	4.5
ECED 2090	Early Childhood Student Teaching Practicum	6.0
ECED 2095	Current Topics in Early Childhood Education <sup>~</sup>	4.5
ECED 2450	Administration of Early Childhood Education Programs <sup>~</sup>	4.5

ECED 1221, ECED 1240, and ECED 2090: Students enrolling in practicums should visit the Early Childhood practicum website at [www.mccneb.edu/ecp](http://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.

## Suggested Course Guide

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 1110	Infant and Toddler Development <sup>Ⓢ</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>Ⓢ</sup>	4.5
ECED 1220	Prepracticum	1.5
ECED 1260	Children's Health and Nutrition <sup>Ⓢ</sup>	4.5
ENGL 1010	English Composition I <sup>Ⓢ</sup> 🌀	4.5

ENGL 1010: general education requirements available Summer quarter

#### Second quarter

ECED 1050	Expressive Arts <sup>Ⓢ</sup>	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1120	Preschool Child Development <sup>Ⓢ</sup>	4.5
ECED 1221	Infant and Toddler Practicum	3.0

#### Third quarter

ECED 1230	School-Age Child Development and Programming <sup>Ⓢ</sup>	3.0
ECED 1240	Preschool- and School-Age Practicum	3.0
MATH 1220	Business Mathematics <sup>Ⓢ</sup>	4.5
	OR	
MATH 1310	Intermediate Algebra <sup>Ⓢ</sup>	4.5
PSYC 1120	Human Growth and Development <sup>Ⓢ</sup>	4.5

MATH 1220, MATH 1310, PSYC 1120: general education requirements available Summer quarter

### Second Year

#### Fifth quarter

ECED 1160	Early Language and Literacy <sup>Ⓢ</sup>	4.5
ECED 2060	Early Childhood Education Curriculum Planning	4.5
ECED 2061	Child Guidance Techniques	4.5
INFO 1001	Information Systems and Literacy <sup>Ⓢ</sup> 🌀	4.5

INFO 1001: general education requirements available Summer quarter

#### Sixth quarter

ECED 2050	Children with Exceptionalities <sup>Ⓢ</sup>	4.5
ECED 2095	Current Topics in Early Childhood Education <sup>Ⓢ</sup>	4.5
ENGL 1020	English Composition II <sup>Ⓢ</sup> 🌀	4.5
HMRL 1010	Human Relations Skills <sup>Ⓢ</sup> 🌀	4.5

ENGL 1020, HMRL 1010: general education requirements available Summer quarter

#### Seventh quarter

ECED 2070	Family and Community Relationships <sup>Ⓢ</sup>	4.5
ECED 2090	Early Childhood Student Teaching Practicum	6.0
ECED 2450	Administration of Early Childhood Education Programs <sup>Ⓢ</sup>	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 transferrable general education courses starting on page 287 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, 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 that 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	13.5
Major requirements	37.5
<b>Total credit hours required</b>	<b>51.0</b>

### **General education requirements (13.5 credit hrs.)**

#### **Communications**

English level I 4.5

See Communications course options (p. 38)

#### **Social sciences**

PSYC 1120 Human Growth and Development<sup>~</sup> 4.5

#### **Quantitative/numeracy skills**

Select one course from the following:

MATH 1220 Business Mathematics<sup>~</sup> 4.5

MATH 1310 Intermediate Algebra<sup>~</sup> 4.5

Students planning to transfer to a 4-year program should select MATH 1310

## **Major requirements for Early Childhood Educator – Assistant (37.5 credit hrs.)**

### **Courses**

ECED 1050	Expressive Arts <sup>~</sup>	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>~</sup>	4.5
ECED 1120	Preschool Child Development <sup>~</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>~</sup>	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant and Toddler Practicum	3.0
ECED 1230	School-Age Child Development and Programming <sup>~</sup>	3.0
ECED 1240	Preschool- and School-Age Practicum	3.0
ECED 1260	Children's Health and Nutrition <sup>~</sup>	4.5

ECED 1221, ECED 1240: Students enrolling in practicums should visit the Early Childhood practicum website at [www.mccneb.edu/ecp](http://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.

### **Suggested Course Guide**

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	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>~</sup>	4.5
ECED 1050	Expressive Arts <sup>~</sup>	4.5
ECED 1220	Prepracticum	1.5
ENGL 1010	English Composition I <sup>~</sup> 🌀	4.5

ENGL 1010: general education requirements available Summer quarter

##### **Second quarter**

ECED 1050	Expressive Arts <sup>~</sup>	4.5
ECED 1120	Preschool Child Development <sup>~</sup>	4.5
ECED 1221	Infant and Toddler Practicum	3.0
ECED 1260	Children's Health and Nutrition <sup>~</sup>	4.5

##### **Third quarter**

ECED 1230	School-Age Child Development and Programming <sup>~</sup>	3.0
ECED 1240	Preschool- and School-Age Practicum	3.0
MATH 1220	Business Mathematics <sup>~</sup>	4.5
	OR	
MATH 1310	Intermediate Algebra <sup>~</sup>	4.5
PSYC 1120	Human Growth and Development <sup>~</sup>	4.5

MATH 1220, MATH 1310, PSYC 1120: general education requirements available Summer quarter

## **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	Expressive Arts <sup>~†</sup>	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>~†</sup>	4.5
ECED 1120	Preschool Child Development <sup>~†</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>~†</sup>	4.5
ECED 1260	Children's Health and Nutrition <sup>~†</sup>	4.5

ECED 1060, ECED 1110, ECED 1120, and 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	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>~†</sup>	4.5
ECED 1120	Preschool Child Development <sup>~†</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>~†</sup>	4.5
SPAN 1050	Spanish for Business I <sup>~†</sup>	4.5
SPAN 1110	Elementary Spanish I <sup>~†</sup> 🌀	7.5

ECED 1060, ECED 1110, ECED 1120, and 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	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>Ⓢ</sup>	4.5
ECED 1120	Preschool Child Development <sup>Ⓢ</sup>	4.5
ECED 1150	Introduction to Early Childhood Education <sup>Ⓢ</sup>	4.5
SLIS 1010	American Sign Language I	6.0
SLIS 1150	Introduction to the Deaf World	4.5

ECED 1060, ECED 1110, ECED 1120, and 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	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant and Toddler Development <sup>Ⓢ</sup>	4.5
ECED 1120	Preschool Child Development <sup>Ⓢ</sup>	4.5
ECED 1230	School-Age Child Development and Programming <sup>Ⓢ</sup>	3.0
ENTR 1050	Introduction to Entrepreneurship <sup>Ⓢ</sup>	4.5
ENTR 2040	Entrepreneurship Feasibility Study <sup>Ⓢ</sup>	4.5
ENTR 2050	Marketing for the Entrepreneur <sup>Ⓢ</sup>	4.5

ECED 1060, ECED 1110, and 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](http://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. 298)
- Liberal Arts/Academic Transfer - Language Studies (p. 299)

## **Degree: Associate in Science**

- Liberal Arts/Academic Transfer (p. 300)

## **See other programmatic-related transfer degrees:**

- Art
- Business Transfer
- Computer Technology Transfer
- Pre-Dietetics Transfer

## MCC Transfer Agreements

### **Alegent Health**

Program Guides

### **Baker University**

A-to-B Agreements

### **Bellevue University**

A-to-B Agreements

Course-by-Course Agreements

### **Buena Vista University**

A-to-B Agreements

### **Chadron State College**

A-to-B Agreements

General Education Agreements

### **Clarkson College**

A-to-B Agreements

General Education Agreements

### **College of Saint Mary**

A-to-B Agreements

General Education Agreements

### **Concordia University**

Course-by-Course Agreements

### **Creighton University**

A-to-B Agreements

General Education Agreements

### **Doane College**

Course-by-Course Agreements

### **Embry-Riddle Aeronautical University**

A-to-B Agreements

### **Grace University**

A-to-B Agreements

### **Graceland University**

Course-by-Course Agreements

### **Iowa State University**

Course-by-Course Agreements

### **Johnson and Wales University**

A-to-B Agreements

### **Kansas State University**

Course-by-Course Agreements

### **Midland 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

### **Northwest Missouri State University**

A-to-B Agreements

### **Palmer College of Chiropractic**

Program Guides

### **Peru State College**

A-to-B Agreements

General Education Agreements

### **University of Iowa**

Course-by-Course Agreements

### **University of Kansas**

Course-by-Course Agreements

### **University of Nebraska at Kearney**

General Education Agreements

### **University of Nebraska–Lincoln**

A-to-B Agreements

General Education Agreements

### **University of Nebraska Medical Center**

A-to-B Agreements

Program Guides

### **University of Nebraska at Omaha**

A-to-B Agreements

General Education Agreements

### **Wayne State College**

A-to-B Agreements

General Education 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.

Visit MCC's website for the most current transfer listings at [www.mccneb.edu/articulation](http://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	6.33
1.0	0.67	4.0	2.67	7.0	4.67	10.0	6.67
1.5	1.00	4.5	3.00	7.5	5.00	10.5	7.00
2.0	1.33	5.0	3.33	8.0	5.33	11.0	7.33
2.5	1.67	5.5	3.67	8.5	5.67	11.5	7.67
3.0	2.00	6.0	4.00	9.0	6.00	12.0	8.00

## Frequently Asked Questions

### Should I check with the college or university where I am planning to transfer?

Once 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 <http://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 5-7 days; allow additional processing time during peak times, such as graduation, end of a term/quarter, etc.

## Transfer Course Options

### Courses

#### Quantitative/Numeracy Skills

MATH 1310	Intermediate Algebra	4.5
MATH 1410	Statistics	4.5
MATH 1420	College Algebra	5.0
MATH 1430	Trigonometry	4.5
MATH 2410	Calculus I	7.5
MATH 2411	Calculus II	7.5
MATH 2412	Calculus III	6.0
MATH 2510	Differential Equations	4.5

#### Computer Sciences

INFO 1003	Introduction to Computer Programming	5.0
INFO 1521	Java Programming I	4.5
INFO 1522	C++ Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1524	COBOL I	5.0
INFO 1531	Java Programming II	4.5
INFO 1534	COBOL II	5.0
INFO 1620	Introduction to Database Design	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5

#### Cultural Studies

ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2490	Introduction to Latin American Literature	4.5
ENGL 2530	Ethnic Literature	4.5
ENGL 2900	Special Topics in Literature	4.5
GEOG 1050	Introduction to Human Geography	4.5
GEOG 2150	World Regional Geography	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1060	The History of Black Women in America	4.5
HIST 1070	Traditional and Modern China	4.5
HIST 1080	Traditional and Modern Japan	4.5
HIST 1110	World Civilization from Prehistory to 1500	4.5
HIST 1120	World Civilization from 1500 to Present	4.5
HIST 2200	Latin American History	4.5
HUMS 1110	Origins of the Humanities	4.5
HUMS 1140	Multi-Cultural Humanities I	4.5
HUMS 1150	Multi-Cultural Humanities II: The Humanities in the Non-Western World	4.5
PHIL 2200	Introduction to Comparative Religion	4.5

POLS 2070	Contemporary Social and Political Issues	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SOCI 1100	Native American Studies	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2060	Multicultural Issues	4.5

GEOG 1050, HIST 1050, HIST 1110, HIST 1120, HUMS 1110, HUMS 1140, HUMS 1150, and 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	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
GEOG 1010	Fundamentals of Geography	4.5
GEOG 1050	Introduction to Human Geography	4.5
GEOG 2150	World Regional Geography	4.5
HIST 1010	United States History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1060	The History of Black Women in America	4.5
HIST 1070	Traditional and Modern China	4.5
HIST 1080	Traditional and Modern Japan	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
HIST 2200	Latin American History	4.5
HIST 2220	U.S. and Global Military History	4.5
POLS 2050	American National Government	4.5
POLS 2060	The Constitution	4.5
POLS 2070	Contemporary Social and Political Issues	4.5
PSYC 1010	Introduction to Psychology	4.5
PSYC 1110	Parenting and Family Problem Solving	4.5
PSYC 1120	Human Growth and Development	4.5
PSYC 1130	Cognitive Development	4.5
PSYC 2140	Behavior Modification and Principles of Learning	4.5
PSYC 2150	Survey of Human Sexuality	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
PSYC 2450	Social Psychology	4.5
PSYC 2550	Popular Readings in Social Science	4.5
PSYC 2650	Research Methods	4.5

SOCI 1010	Introduction to Sociology~☪☺	4.5	HUMS 1110	Origins of the Humanities~☪	4.5
SOCI 1050	Sociology of Healthcare~☪	4.5	HUMS 1120	Humanities I: Medieval - Renaissance~☪	4.5
SOCI 1100	Native American Studies~☪	4.5	HUMS 1130	Humanities II: Modern World~☪	4.5
SOCI 1250	Introduction to Anthropology~☪	4.5	HUMS 1140	Multi-Cultural Humanities I	4.5
SOCI 2050	Current Social Problems~☪	4.5	HUMS 1150	Multi-Cultural Humanities II: The Humanities in the Non-Western World~☪	4.5
SOCI 2060	Multicultural Issues~☪	4.5	HUMS 2310	Film History and Appreciation~☪	4.5
SOCI 2110	Introduction to Gerontology~☪	4.5	JAPN 1010	Beginning Japanese I	7.5
SOCI 2150	Survey of Human Sexuality~☪	4.5	JAPN 1020	Beginning Japanese II	7.5
SOCI 2160	Marital and Family Relationships~☪	4.5	JAPN 2010	Intermediate Japanese I	4.5
SOCI 2310	Criminology~☪	4.5	JAPN 2020	Intermediate Japanese II	4.5
SOCI 2311	Juvenile Justice~☪	4.5	JAPN 2030	Intermediate Japanese III	4.5
SOCI 2450	Social Psychology~☪	4.5	JAPN 2040	Intermediate Japanese IV	4.5
SOCI 2550	Popular Readings in Social Science~☪	4.5	MUSC 1010	Introduction to Music I	4.5
SOCI 2650	Research Methods~☪	4.5	MUSC 1020	Introduction to Music II	4.5
SOWK 1010	Introduction to Social Work~☪	4.5	MUSC 1050	Music Appreciation~☪	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.

### Humanities

ARTS 1000	Introduction to the Visual Arts☺	4.5	PHIL 1010	Introduction to Philosophy~☪	4.5
ARTS 1010	Drawing	4.5	PHIL 1030	Professional Ethics~☪	4.5
ARTS 1020	2-D Design	4.5	PHIL 1100	Critical Reasoning~☪	4.5
ARTS 1110	Art History-Ancient to Gothic~☪☺	4.5	PHIL 2030	Introduction to Ethics~☪	4.5
ARTS 1120	Art History-Renaissance to Modern~☪	4.5	PHIL 2200	Introduction to Comparative Religion~☪	4.5
CHIN 1110	Beginning Chinese I~☪	7.5	PHIL 2400	Philosophy and Literature	4.5
DIMA 1411	History of Animation	4.5	PHIL 2600	Contemporary Issues in Philosophy	4.5
ENGL 1310	Creative Writing	4.5	SLIS 1010	American Sign Language I	6.0
ENGL 2450	Introduction to Literature~☪	4.5	SLIS 1020	American Sign Language II	6.0
ENGL 2460	Introduction to Short Stories	4.5	SPAN 1110	Elementary Spanish I~☪☺	7.5
ENGL 2470	Introduction to Women's Literature	4.5	SPAN 1120	Elementary Spanish II~☪☺	7.5
ENGL 2480	Introduction to Drama Literature I	4.5	SPAN 2110	Intermediate Spanish I~☪	4.5
ENGL 2481	Introduction to Drama Literature II	4.5	SPAN 2120	Intermediate Spanish II~☪	4.5
ENGL 2490	Introduction to Latin American Literature	4.5	SPCH 1220	Communication in Small Groups	4.5
ENGL 2510	American Literature I~☪	4.5	SPCH 1300	Interpersonal Communication	4.5
ENGL 2520	American Literature II	4.5	THEA 1000	Introduction to the Theatre~☪	4.5
ENGL 2530	Ethnic Literature	4.5	THEA 2010	Script Analysis	4.5
ENGL 2610	British Literature I~☪	4.5	THEA 2020	Fundamentals of Acting I	4.5
ENGL 2620	British Literature II	4.5	THEA 2021	Fundamentals of Acting II	4.5
ENGL 2900	Special Topics in Literature	4.5	THEA 2030	Playwriting I	4.5
ENGL 2901	Special Topics in Writing	4.5	THEA 2031	Playwriting II	4.5
FREN 1010	Beginning French I~☪	7.5	THEA 2110	Theatre History I	4.5
FREN 1020	Beginning French II~☪	7.5	THEA 2120	Theatre History II	4.5
FREN 2010	Intermediate French I~☪	4.5	THEA 2480	Introduction to Drama Literature I	4.5
FREN 2020	Intermediate French II~☪	4.5	THEA 2481	Introduction to Drama Literature II	4.5
GERM 1010	Elementary German I~☪	7.5	HUMS 1110, HUMS 1120, HUMS 1140, and HUMS 1150:		
GERM 1020	Elementary German II~☪	7.5		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.	
HUMS 1000	Humanities through the Arts☺	4.5			
HUMS 1100	Classical Humanities~☪	4.5			

**Natural Sciences**

BIOS 1010	Introduction to Biology~☞	6.0
BIOS 1111	Biology I	5.0
BIOS 1121	Biology II	5.0
BIOS 1130	Biology III	5.0
BIOS 1310	Survey of Human Anatomy and Physiology	5.0
BIOS 1400	Introduction to Botany	4.5
BIOS 2050	Genetics~☞	4.5
BIOS 2150	Microbiology	6.0
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 2320	Human Anatomy and Physiology II	6.0
CHEM 1010	College Chemistry	6.0
CHEM 1120	Chemistry for the Health Sciences I	3.0
CHEM 1130	Chemistry for Health Sciences II	3.0
CHEM 1210	General Chemistry: Part I	2.0
CHEM 1211	General Chemistry: Part II	4.0
CHEM 1212	General Chemistry I: Accelerated	6.0
CHEM 1220	General Chemistry II	6.0
CHEM 2310	Fundamentals of Organic Chemistry	6.0
CHEM 232A	Organic Chemistry IA	2.5
CHEM 232B	Organic Chemistry IB	2.5
CHEM 232C	Organic Chemistry IC	2.5
CHEM 233A	Organic Chemistry IIA	2.5
CHEM 233B	Organic Chemistry IIB	2.5
CHEM 233C	Organic Chemistry IIC	2.5
ENGR 1010	Introduction to Engineering Design	4.5
ENGR 1020	MATLAB Programming	4.5
ENGR 2010	Elements of Electrical Engineering I	4.5
ENGR 2020	Engineering Statics	4.5
GEOG 1150	Introduction to Physical Geography - Weather and Climate~☞	6.0
GEOG 1160	Introduction to Physical Geography - Landforms~☞	6.0
GEOG 1210	Introduction to Physical Geology~☞	6.0
PHYS 1010	Applied Physics	4.5
PHYS 110A	Principles of Physics IA	2.5
PHYS 110B	Principles of Physics IB	2.5
PHYS 110C	Principles of Physics IC	2.5
PHYS 111A	Principles of Physics IIA	2.5
PHYS 111B	Principles of Physics IIB	2.5
PHYS 111C	Principles of Physics IIC	2.5
PHYS 210A	General Physics IA	2.5
PHYS 210B	General Physics IB	2.5
PHYS 210C	General Physics IC	2.5
PHYS 211A	General Physics IIA	2.5
PHYS 211B	General Physics IIB	2.5
PHYS 211C	General Physics IIC	2.5
SCIE 1010	Introduction to Physical Science~☞	6.0
SCIE 1300	Astronomy~☞	4.5
SCIE 1310	Astronomy Laboratory~☞	1.5
SCIE 1400	Introduction to Meteorology	6.0

BIOS 1111/BIOS 1121/BIOS 1130 and CHEM 1120/CHEM 1130/CHEM 1210/CHEM 1211/CHEM 1212: entire sequence should be taken.

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 (A-to-B) 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.edu/articulation](http://www.mccneb.edu/articulation) 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
<b>Total credit hours required</b>	<b>96.0</b>

### 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	4.5
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Take MATH 1310 or higher level MATH course

#### Other

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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. **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

Select 4.5 credit hours from the mathematics courses listed in Transfer course options (p. 295).

#### Social sciences

Select 9.0–27.0 credit hours from the social sciences courses listed in Transfer course options (p. 295).

#### Natural sciences

Select 12.0 credit hours from the natural sciences courses listed in Transfer course options (p. 297). 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. 296).

#### Cultural studies

Select 4.5 credit hours from the cultural studies courses listed in Transfer course options (p. 295).

#### Electives

*Catalogs and additional transfer information are available in Student Services or by visiting the articulation website at [www.mccneb.edu/articulation](http://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
<b>Total credit hours required</b>	<b>96.5</b>

### **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	4.5
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Take MATH 1310 or higher level MATH course

#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

### **Major requirements for Liberal Arts/Academic Transfer – Language Studies (69.5 credit hrs.)**

#### **Humanities**

Select one group:

##### **Group 1:**

FREN 1010	Beginning French I	7.5
FREN 1020	Beginning French II	7.5
FREN 2010	Intermediate French I	4.5
FREN 2020	Intermediate French II	4.5
FREN 2030	Intermediate French III	4.5

##### **Group 2:**

JAPN 1010	Beginning Japanese I	7.5
JAPN 1020	Beginning Japanese II	7.5
JAPN 2010	Intermediate Japanese I	4.5
JAPN 2020	Intermediate Japanese II	4.5
JAPN 2030	Intermediate Japanese III	4.5

##### **Group 3:**

SPAN 1110	Elementary Spanish I	7.5
SPAN 1120	Elementary Spanish II	7.5
SPAN 2110	Intermediate Spanish I	4.5

##### **Group 4:**

SPAN 1410	Spanish for High Beginners I	7.5
SPAN 1411	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	4.5
SPAN 2210	Conversation Skills I	4.5

### **Social sciences**

Select 9.0 credit hours from the social sciences courses listed in Transfer course options (p. 295).

HIST 1080 Traditional and Modern Japan is highly recommended for Japanese majors.

HIST 2200 Latin American History is highly recommended for Spanish majors.

### **Quantitative/numeracy skills**

Select 4.5 credit hours from the mathematics courses listed in Transfer course options (p. 295).

### **Cultural studies**

Select 4.5 credit hours from the cultural studies courses listed in Transfer course options (p. 295).

### **Natural sciences**

Select 12.0 credit hours from the natural sciences courses listed in Transfer course options (p. 297).

### **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	Intermediate Spanish for Business II	4.5
SPAN 2060	Intermediate Spanish for Healthcare I	4.5
SPAN 2061	Intermediate Spanish for Healthcare II	4.5
SPAN 2220	Conversation Skills II	4.5
SPAN 2480	Cinematica	4.5
SPAN 2490	Introduction to Latin American Literature	4.5
SPAN 2900	Special Topics in Spanish II	variable
LANG	Courses of choice	

## **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
<b>Total credit hours required</b>	<b>96.0</b>

### **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	4.5
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Take MATH 1310 or higher level MATH course

#### **Other**

HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	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. 295).

Computer sciences courses 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. 295).

#### **Humanities**

Select 4.5 credit hours from the humanities courses listed in Transfer course options (p. 296).

#### **Natural sciences/quantitative/numeracy skills**

Select 28.5 credit hours from the natural sciences/mathematics courses listed in Transfer course options (p. 297).

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. 295).

#### **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 as to the appropriateness of 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](http://www.mccneb.edu/articulation) for complete course listings and the requirements.

Associate in science transfer agreements	Four-year institution
Pre-Agricultural Sciences (LAGAS)	University of Nebraska–Lincoln
Pre-Biology (LABAS)	University of Nebraska 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-Dietetics (LADTO)	University of Nebraska–Lincoln
Pre-Engineering	University of Nebraska-Lincoln/Omaha campus
Pre-Architectural Engineering	
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 Language Arts Endorsement (LALAO) Math Endorsement (LAEMO) Natural Science Endorsement (LANSO) Social Sciences Endorsement (LASSO) Pre-Deaf or Hard of Hearing Endorsement (LAPDO)	
Pre-Veterinarian (PVAS1)	University of Nebraska–Lincoln/Iowa State University

## 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

5.0 - 3.0 - 6.0

Key:

Course subject (BIOS)

Course number (1010)

Course title (Introduction to Biology)

Offered online (🌐)

Offered in hybrid format (🌐)

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.

**Co-requisites** – Co-requisites are required program courses that must be taken simultaneously; a grouping of courses that must all be taken within the same quarter. In some cases, previous completion of the required course is acceptable.

**Hybrid courses** – A hybrid course combines classroom learning with a significant online component.

## ACCT - Accounting

### ACCT 1050 - Bookkeeping 🌐

3.0 - 0.0 - 3.0

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 🌐

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

This course is an introductory survey of current individual income tax laws. Topics include basic filing requirements, includable income, adjustments, itemized deductions, and tax credits.

### ACCT 1100 - Accounting I 🌐 🌐

4.0 - 1.0 - 4.0

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 🌐 🌐

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 III**  **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****3.0 - 0.0 - 3.0**

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**

Co-requisite: 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 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

Co-requisite: 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 co-requisite 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 decision-maker. 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** **4.5 - 0.0 - 4.5**

Prerequisite: (1) 9.0 credit hours in 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. (Cross-listed 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****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 student-faculty agreed upon business concept. Part of the requirement of this course is a comprehensive exam covering accounting, management, marketing, and general business topics. (Cross-listed as BSAD 2940)

**ACCT 2981 - Internship 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** ☺**7.5 - 0.0 - 7.5**

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**

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 1100 - Beginning AutoCAD****4.5 - 0.0 - 4.5**

This course introduces students to classical drawing techniques and computer-aided 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**

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****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 1200 - Wood-Frame Architecture** 🌐**8.0 - 0.0 - 8.0**

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** 🌐**8.0 - 0.0 - 8.0**

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 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 of the Architectural Design Technology program.

**ARTS - Art****ARTS 1000 - Introduction to the Visual Arts** 🌐**4.5 - 0.0 - 4.5**

The purpose of this art appreciation course is to foster a broad understanding of the visual arts. The course content deals with understanding why and how artists create and also the important role culture and history play in the purpose and meaning of art. It includes an overview of the creative process, changes in art over time, and the relationship of the arts and society.

**ARTS 1010 - Drawing****2.5 - 6.0 - 4.5**

Drawing is a foundational course in objective drawing using various media. The course focuses on the formal elements of line, shape, form, value, texture, and space in drawn images, with the intent of refining dexterity, perceptual, and visualization skills. Students learn about figure/ground relationships, relative position and proportion, linear perspective, and light effects on form and space. Students are introduced to compositional and drawing strategies within the context of historic and contemporary references and are encouraged to find personal solutions to set problems.

**ARTS 1020 - 2-D Design****2.5 - 6.0 - 4.5**

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 Studio****2.5 - 6.0 - 4.5**

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.

**ARTS 1040 - 4-D Studio****2.5 - 6.0 - 4.5**

This course is an introduction to basic concepts of time, change, and movement as they relate to the visual arts. Activities focus on the use of computers, video, photo, and sound but also rely on drawing and design skills acquired in earlier art courses. Linear and interactive design problems stress critical thinking through series, sequence, and visual narrative and also explore pacing, sound, and image relationships. NOTE: It is recommended that students take INFO 1001 prior to taking ARTS 1040.

**ARTS 1050 - Creative Careers****4.5 - 0.0 - 4.5**

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** 🍷 🍷**4.5 - 0.0 - 4.5**

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** 🍷**4.5 - 0.0 - 4.5**

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 - Art of the Americas****4.5 - 0.0 - 4.5**

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.

**ARTS 2010 - Life Drawing****2.5 - 6.0 - 4.5**

Prerequisite: (1) ARTS 1020

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****2.5 - 6.0 - 4.5**

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****2.5 - 6.0 - 4.5**

Prerequisite: (1) ARTS 1010

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**

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 (hand-built 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**

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 2120 - Intermediate Painting****2.5 - 6.0 - 4.5**

Prerequisite: (1) ARTS 2020

This studio course builds on the technical skills and concepts learned in the first painting course. Emphasis is on expanding color and paint manipulation skills. 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. Projects are themed-based and the instructor assists each member of the class in developing an individual body of work that reflects their personal and technical interest in painting. Students also continue to develop an understanding of historical and contemporary painting.

**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. 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 problem-seeking 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**

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

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: (1) Mechanical aptitude test

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

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 1210 or equivalent and AUTB 1010

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

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

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**

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**

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**

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**3.0 - 9.0 - 6.0**

Prerequisite: (4) College-level math and reading skills; mechanical aptitude test; valid driver's license; and instructor approval.

Co-requisite: AUTT 1210

This beginning class deals with many of the basic elements of the auto repair trade. Items covered are safety, chemicals, fasteners, micrometers, tires, lubrication, hoses, thermostats, bulb replacement, fluid changes, accessory drive belts, power steering flush equipment, cooling system flush equipment, transmission flush equipment, general maintenance procedures, and inspection processes, including focus on an eight-step repair procedure and manuals. This class also encourages the soft skills needed in today's modern workplaces, such as attitude, ethics, professionalism, and on-the-job communication. The course includes individualized hands-on laboratory training utilizing live work.

**AUTT 1210 - Automotive Electricity and Electronics I****3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1010 or instructor approval; and 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 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: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 1220 - Automotive Electricity and Electronics II****3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1210 or instructor approval; and valid driver's license

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: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 1510 - Brake Systems****3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1010 or instructor approval; and valid driver's license

Students spend classroom and lab hours on the proper repair and diagnosis of modern brake systems. They study components such as power boosters, master cylinders, and drum and disc brake hardware in detail. The course covers the design, operation, and testing of anti-lock brake and transaction control systems using a variety of testing equipment. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 1620 - Climate Control, Heating and Air Conditioning**

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**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1210 or instructor approval; and valid driver's license

Students study automotive heating and air conditioning extensively. The course discusses the principles of troubleshooting and repair and concludes with automatic temperature control operation and testing. The course includes hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 1710 - Engine Mechanical Service** 🌐**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1210 or instructor approval; and valid driver's license

This course covers the diagnosis and repair of upper engine components. The major objective of this course is to properly diagnose engine problems, estimate repair costs, and repair the engine as necessary to conform to service specifications. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2310 - Suspension Systems****3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1220 or instructor approval; and valid driver's license

This course covers the operation, diagnosis, and repair of front and rear suspension systems. Students also study manual and power steering systems, tire and wheel balance, tire wear, and four-wheel alignment. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2410 - Basic Driveability****3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1220 or instructor approval; and valid driver's license

This course covers the basics of engine performance, the interrelationships of electronic systems, and the use of specialized test equipment to diagnose driveability problems. Fuel injection and fuel system components, fuel pump testing, and injector testing are studied. Individualized hands-on laboratory training utilizing live work is included in this course. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2430 - Advanced Driveability** 🌐**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 2410 or instructor approval; valid driver's license

This course covers major phases of engine analysis, performance, fuel systems, emission controls, and five-gas exhaust analysis. Students use oscilloscopes, diagnostic equipment, and scan tools. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2810 - Manual Transmissions and Drivetrains** 🌐**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1210 or instructor approval; valid driver's license

The course covers the operation, diagnosis, and repair of manual transmissions and clutches. Students study 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: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2820 - Automatic Transmissions** 🌐**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 1210 or instructor approval; valid driver's license

This course covers the basic theory of rear-wheel drive transmission operations. Students study torque converters, hydraulic systems, repair, and diagnosis. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2830 - Automatic Transaxles** 🌐**3.0 - 9.0 - 6.0**

Prerequisite: (2) AUTT 2820 or instructor approval; valid driver's license

This course covers theory and associated drive system components as well as diagnosis and repair to enhance the students' skills. The course includes individualized hands-on laboratory training utilizing live work. NOTE: Students must have an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**AUTT 2900 - Special Topics in AUTT 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 (ITL) and an acceptable completion score on the Sp/2 Safety Course for Mechanical Safety and Mechanical Pollution Prevention.

**BIOS - Biology****BIOS 1010 - Introduction to Biology** 🏠 🌐**5.0 - 3.0 - 6.0**

Prerequisite: (1) College-level reading, writing, and math proficiency

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. This course includes both lecture and lab components.

**BIOS 1111 - Biology I****4.0 - 3.0 - 5.0**

Prerequisite: (1) College-level reading, writing, and math proficiency

This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121, and BIOS 1130. In this first course in the sequence, students study the cellular, molecular, and genetic bases for life process. The course includes both lecture and lab components. All three courses must be successfully completed to transfer as a two-semester general biology course.

**BIOS 1121 - Biology II****4.0 - 3.0 - 5.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and BIOS 1111

This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121, and BIOS 1130. In this second course in the sequence, students study ecology and evolutionary biology. The course includes both lecture and lab components. All three courses must be successfully completed to transfer as a two-semester general biology course.

**BIOS 1130 - Biology III****4.0 - 3.0 - 5.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and BIOS 1121

The last in a three-course sequence, this course emphasizes structure and function of plant and animal organ systems. This course includes both lecture and lab components.

**BIOS 1250 - Environmental Biology** 🏠 🌐**4.5 - 0.0 - 4.5**

Prerequisite: (1) College-level reading, writing, and math proficiency

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: (1) College-level reading, writing, and math proficiency

This survey course includes all systems of the human body, emphasizing the relationship between structure and function. It is intended for certificate-seeking students in MCC programs; transfer elsewhere as anatomy/physiology credit is not assured. This course includes both lecture and lab components.

**BIOS 1400 - Introduction to Botany****3.5 - 3.0 - 4.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and HORT 1100 (course is HLSM 1010 beginning 13/FA), BIOS 1010, or MCC Biology placement exam

This is an introductory botany course that 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. 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.

**BIOS 1500 - Introduction to Bioprocessing****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

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. This course is supplemented with laboratory exercises, demonstrations, and field trips that illustrate the basic techniques of bioprocessing.

**BIOS 2050 - Genetics** ~☪**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****5.0 - 3.0 - 6.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and BIOS 1010

This course includes a study of the structure, physiology, ecology, and human health implications of microorganisms. This course includes both lecture and lab components. NOTE: If students' programs include a course in anatomy and physiology, completing that course prior to BIOS 2150 would be to their advantage.

**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

This course presents an in-depth study of human anatomy and physiology by examining cell function, tissues, and the skeletal, muscular, and nervous systems. This course includes both lecture and lab components. NOTE: CHEM 1010, CHEM 1211, or CHEM 1212 must be successfully completed prior to taking BIOS 2320 Anatomy and Physiology II.

**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

As a continuation of BIOS 2310, this course studies the structure and function of the circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. This course includes both lecture and lab components. NOTE: If students' programs require both BIOS 2310 and BIOS 2320, the chemistry prerequisite must be met prior to taking BIOS 2320.

**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** ~☪**4.5 - 0.0 - 4.5**

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** ~☪**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 I** ~☪**4.5 - 0.0 - 4.5**

The course offers an introduction to ordinary legal aspects of business transactions involving such topics as legal rights and duties, law of contracts, law of sales, and law of property. It gives a general understanding and development of basic legal logic in business situations through the use of principles, cases, and information useful in determining the need for professional counsel.

**BSAD 1110 - Business Law II** ~☪**4.5 - 0.0 - 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**

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 be taken prior to BSAD 1200, BSAD 1201, and BSAD 1202.

**BSAD 1201 - Advertising and Sales Promotion****4.5 - 0.0 - 4.5**

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 be taken prior to BSAD 1200, BSAD 1201, and BSAD 1202.

**BSAD 1202 - Direct Marketing Methods****4.5 - 0.0 - 4.5**

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 be 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**

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**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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**

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**

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****4.5 - 0.0 - 4.5**

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**

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**   
**4.5 - 0.0 - 4.5**

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**

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**   
**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**

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**

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**   
**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**   
**4.5 - 0.0 - 4.5**

Prerequisite: (1) 9.0 credit hours in 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. (Cross-listed as ACCT 2800)

**BSAD 2900 - Special Topics in Management**  
**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 student-faculty agreed upon business concept. Part of the requirement of this course is a comprehensive exam covering accounting, management, marketing, and general business topics. (Cross-listed as ACCT 2940)

**BSAD 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****0.0 - 16.0 - 4.0**

Prerequisite: (1) Instructor approval

The internship provides students with the opportunity to apply knowledge gained in 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****5.0 - 3.0 - 6.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and MATH 0931 or MATH 0960

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. This course includes both lecture and lab components. NOTE: For the hybrid section, students meet once a week for problem-solving, discussion, and laboratory. Students must understand that a significant portion of the learning is their responsibility in a hybrid class.

**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

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. This course includes both lecture and lab components.

**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

As a continuation of CHEM 1120, this course continues with a study of those areas of chemistry that relate to physiological 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. This course includes both lecture and lab components.

**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

Co-requisite: 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. 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. NOTE: The co-requisite 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 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

Co-requisite: 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. NOTE: The co-requisite MATH 1420 can be taken concurrently or have previously been completed. The level of difficulty of General Chemistry is quite high. It is strongly recommended that students complete a prior high school or beginning college-level chemistry course before undertaking this course. General Chemistry I is offered in two formats. The first format includes both CHEM 1210 and 1211. The combination of courses covers all the topics in a semester-length General Chemistry I course and is covered over a two-quarter period. This course is for students with some chemistry background but weaker math skills and allows time at the beginning of the course to perfect those skills. Both CHEM 1210 and 1211 must be successfully completed to transfer as a semester-length 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 assessment testing; and MATH 1310

Co-requisite: 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. NOTE: The co-requisite MATH 1420 can be taken concurrently or have previously been completed. The level of difficulty of General Chemistry is quite high. It is assumed that students taking this course have some chemistry background and strong math skills to work at the accelerated pace. The equivalent to the entire first semester of General Chemistry I is covered in this one-quarter 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

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.). NOTE: General Chemistry II is offered in the accelerated format only. It is expected that students have completed the necessary math prerequisite prior to enrolling in this 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

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. 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. This course includes both lecture and lab components.

**CHEM 1520 - Chemistry for Bioindustry II****2.0 - 3.0 - 3.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 1510

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. This course includes both lecture and lab components.

**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

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. This course includes both lecture and lab components.

**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

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, which includes both lecture and lab components, has three modules, and all three modules 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.

**CHEM 232B - Organic Chemistry IB****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232A

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, which includes both lecture and lab components, has three modules, and all three modules must be completed to transfer as a semester-length course. The topics include structure, properties, and reactions of alkenes and alkynes, including mechanism and stereochemistry.

**CHEM 232C - Organic Chemistry IC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232B

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, which includes both lecture and lab components, has three modules, and all three modules must be completed to transfer as a semester-length course. Topics include the structure, properties, and reactions of halogenated carbon compounds, alcohols, and thiols, including mechanism and stereochemistry.

**CHEM 233A - Organic Chemistry IIA****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 232C (or an equivalent organic chemistry course) with a grade of C or better within the past four years

Organic Chemistry II is a continuation of CHEM 232A, B, and C. 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, which includes both lecture and lab components, has three modules, and all three modules must be completed to transfer as a semester-length course. Topics include spectroscopy; organometallics; and the structure, properties, and reactions of ethers, sulfides, and epoxides, including mechanism and stereochemistry.

**CHEM 233B - Organic Chemistry IIB****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 233A

Organic Chemistry II is a continuation of CHEM 232A, B, and C. 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, which includes both lecture and lab components, has three modules, and all three modules 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.

**CHEM 233C - Organic Chemistry IIC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and CHEM 233B

Organic Chemistry II is a continuation of CHEM 232A, B, and C. This course is designed for students pursuing an academic transfer degree in chemistry, biology, or chemical engineering, as well as for medical pre-professional students. The course, which includes both lecture and laboratory components, is taught as three modules, and all three modules must be completed to transfer as a semester-length course. The topics covered in this module include the structure, properties, and reaction mechanisms of conjugated pi systems, including aromatic compounds.

**CHEM 2900 - Special Topics in Chemistry  
Variable**

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 I** ☞**7.5 - 0.0 - 7.5**

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 II** ☞**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**

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**

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** ☞**2.0 - 0.0 - 2.0**

This course includes the study of safe food handling, identification of food-borne illness, and establishment of a food safety system. It includes the study of the flow of food through the operation, as well as safe storage, sanitary facilities, and equipment. 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. Upon successful completion of the ServSafe exam, students receive a National Restaurant Association's certificate.

**CHRM 1030 - Culinary Foundations 1: Skills****2.0 - 6.0 - 4.0**

Co-requisite: CHRM 1020 and CHRM 1000

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 co-requisites CHRM 1000 and CHRM 1020 can be taken concurrently or have previously been completed. Current ServSafe certification can be substituted for CHRM 1020. Course formerly Culinary Foundations I.

**CHRM 1035 - Culinary Foundations 2: Cuisines****2.0 - 6.0 - 4.0**

Prerequisite: (1) 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. NOTE: Course formerly Culinary Foundations II

**CHRM 1060 - Spanish for Culinary Professionals****3.0 - 0.0 - 3.0**

Students study the Spanish language as it relates to the food service profession. Students demonstrate a mastery of vocabulary associated with the culinary arts, beginning grammatical concepts, and conversational elements of the Spanish language along with an understanding of the Hispanic culture.

**CHRM 1120 - Soup and Sauce Basics****1.5 - 7.5 - 4.0**

Prerequisite: (1) 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****1.5 - 4.5 - 3.0**

Prerequisite: (1) CHRM 1030

This course focuses on the identification, fabrication, handling, and storage of protein items to include poultry, beef, pork, lamb, shellfish, and finfish. Students are introduced to the concepts of protein cookery.

**CHRM 1140 - A la Carte Cookery: American Regional****0.0 - 9.0 - 3.0**

Prerequisite: (1) CHRM 1035

Study focuses on the preparation of breakfast and lunch cookery for service in a guest-centered environment. Students gain proficiency in the areas of kitchen sense, station management and organization, kitchen safety and sanitation, mise en place, and hustle. An introduction to 'American Regional' cuisine is also included. NOTE: Course title formerly A la Carte Cookery

**CHRM 1210 - Baking Basics****2.0 - 6.0 - 4.0**

Prerequisite: (1) 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****2.0 - 6.0 - 4.0**

Prerequisite: (1) CHRM 1210

This course is an in-depth study of artisan bread baking. Students apply old-world 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**

Students are introduced to the power and invaluable tool of incredible customer service. No foodservice or hospitality establishment is successful unless they 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**

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 (i.e., 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****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****2.5 - 6.0 - 4.5**

Prerequisite: (1) CHRM 2460

This course exposes students to a wide variety of operations and broadens perspectives of the hospitality industry through site visits, speakers, and vendor events. Students explore menu planning and marketing strategies employed by various industry segments in conjunction with the visits. Students need flexible schedules and transportation for success in this course.

**CHRM 2460 - Cost Management****4.5 - 0.0 - 4.5**

Prerequisite: (1) CHRM 0950, CHRM 1010, or MATH 1220 or higher

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****4.5 - 0.0 - 4.5**

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**

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 1010 or CHRM 2460

This course covers purchasing methods and specifications in a variety of food operations. 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**

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**

Co-requisite: CHRM 1550 and CHRM 1030

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**

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**

This course uses a broad, multidisciplinary 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 - 15.0 - 3.0**

Students participate in an immersive cultural and culinary experience in various countries. Students study cultural dishes, flavor profiles and ingredients, and learn to prepare representative dishes from each country visited. Students also 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 2970-9 - Culinary Competition****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**

Co-requisite: CHRM 2550 and CHRM 2460

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**

Co-requisite: 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, and merchandising as well as 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**

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**

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**

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**

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**

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**

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**

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**

This course trains students to properly use the International Green Construction Code.

**CNST 1110 - Construction Safety (10-Hour)****1.0 - 0.0 - 1.0**

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****6.0 - 1.5 - 6.5**

Prerequisite: (2) CNST 1050 and CNST 1010; or instructor approval

This course prepares students for many of the unforeseen surprises that may occur in the field 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****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**

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**

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**

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**

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**

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 plaster door and window openings.

**CNST 2050 - Builders Level, Transit, and Building Layout****3.0 - 1.5 - 3.5**

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**

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**

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 post-construction phases of a project: systematic planning, organizing, managing, controlling, and documenting job site activities.

**CNST 2150 - Construction Law****3.5 - 0.0 - 3.5**

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, sub-contracting, 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 Specialist Diploma 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****4.5 - 0.0 - 4.5**

This course is an overview of the history, development, and philosophies of crime control within a democratic society. It examines the criminal justice system with emphasis on the police, the prosecution and the defense, the courts, and the correctional agencies.

**CRIM 1020 - Introduction to Corrections****4.5 - 0.0 - 4.5**

This course outlines corrections as a systematic process, showing the evolving changes within institutional and community-based corrections. Topics include the history of corrections, the influence of social thought and philosophy on the development of corrections, the rights of the incarcerated inmate, and the duties of the correctional officer.

**CRIM 1030 - Courts and the Judicial Process****4.5 - 0.0 - 4.5**

This course examines legal aspects of investigation and arrest procedures, as well as rules governing the admissibility of evidence in court. It focuses primarily on police and correctional due process, application of the law, and civil liability concerns. Topics include search and seizure, arrest and interrogation, revocation, probation and parole, probable cause, and other timely issues.

**CRIM 1140 - Reporting Techniques for Criminal Justice****4.5 - 0.0 - 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****4.5 - 0.0 - 4.5**

This course outlines the purpose and function of criminal law. Topics include the rights and duties of citizens and police in relation to local, state, and federal law (i.e., arrest, search and seizure, confessions), and the development, application, and enforcement of laws, constitutional issues, and sentencing.

**CRIM 2010 - Introduction to Probation and Parole****4.5 - 0.0 - 4.5**

This course surveys the approach to corrections: types of correctional institutions, residents, programs, management issues, and special problems associated with corrections and correctional institutions. It also covers the history, philosophy of adult and juvenile probation, and parole in the United States.

**CRIM 2020 - Legal Issues in Corrections****4.5 - 0.0 - 4.5**

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****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****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**

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**   
**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 systems 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**   
**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**   
**4.5 - 0.0 - 4.5**

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**   
**4.5 - 0.0 - 4.5**

This course introduces criminal investigation procedures and reviews historical development and investigative processes related to law enforcement functions. Topics include proper collection, organization, and preservation of evidence using basic investigative tools; examination of primary sources of information; analysis of the importance of writing skills; and review of the constitutional (legal) limitations of the investigation.

**CRIM 2300 - Community Relations**   
**4.5 - 0.0 - 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**   
**4.5 - 0.0 - 4.5**

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 Facility**   
**4.5 - 0.0 - 4.5**

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**   
**4.5 - 0.0 - 4.5**

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 2340 - Crime Scene Investigation and Reconstruction**   
**4.5 - 0.0 - 4.5**

Prerequisite: (1) CRIM 2330

This course provides an overview of crime scene investigation and reconstruction in the criminal justice investigation of crimes against person or property where investigation principles are applied. Overview of subject matter includes managing physical evidence, scene search, and collection of evidence. This course gives students the knowledge needed to understand a wide range of crime scene investigation policies and procedures.

**CRIM 2400 - Introduction to Homeland Security**   
**4.5 - 0.0 - 4.5**

This course focuses on the impact of the war on terrorism upon individuals, society, and the government. It examines how the war on terrorism affected first responders, how it transformed local and state governmental planning, and how it defined a new relationship between state and federal government. The course explores changes in the American perspective on constitutional rights, the capacity of the government and the criminal justice system to respond to international acts of terrorism, and how to keep America safe.

**CRIM 2410 - Homeland Security Transportation**   
**4.5 - 0.0 - 4.5**

The course content covers the safeguarding of transportation by rail, air, and sea against terrorist attacks. Students analyze measures implemented to reduce the likelihood of threats to the U.S.'s transportation network. This course also covers courses of action taken in order to mitigate the impact of such an attack should it occur.

**CRIM 2420 - International Crime and Terrorism** ☪  
4.5 - 0.0 - 4.5

This course is an interdisciplinary course examining patterns of behavioral incidence and geography of terrorist crimes, political criteria underlying the identification of terrorists and terrorist activities, and causal theories from political, economic, and cultural perspectives. It takes an international approach to the study of diplomatic, criminal justice, military responsiveness, and preventative policies.

**CRIM 2430 - Emergency Response to Terrorism** ☪  
4.5 - 0.0 - 4.5

This course covers the strategic planning, incident management, and intelligence techniques needed to provide the necessary foundation for anti-terrorism preparedness. Topics 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 2440 - Introduction to Bioterrorism** ☪  
4.5 - 0.0 - 4.5

This course examines the proliferation of weapons of mass destruction - chemical, biological, radiological, nuclear, and explosive weapons that could cause massive casualties if used for terrorist attacks. Students study the possible vulnerability of the U.S. populace to such weapons and also explore strategies of how to prevent, limit, defend, and deter the use of weapons of mass destruction by terrorists. The course also discusses the past, present, and future national and international responses to, and defenses against, the threat of weapons of mass destruction terrorism.

**CRIM 2450 - Global Terrorism** ☪  
4.5 - 0.0 - 4.5

This course is designed to help students understand terrorism and its international impact. This course also looks at the regions and nations in the investigation of terrorism, its many different forms and factions, and their close interrelationships around the world.

**CRIM 2500 - Introduction to Private Security Management** ☪  
4.5 - 0.0 - 4.5

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 2510 - Private Security Law** ☪  
4.5 - 0.0 - 4.5

Prerequisite: (1) CRIM 2500

This course outlines the basic concepts and principles of criminal and civil law as they pertain to private security. It discusses the differences and similarities with law enforcement such as powers of arrest, use of force, search and seizure, and protection of private versus public property.

**CRIM 2520 - Loss Prevention** ☪  
4.5 - 0.0 - 4.5

This course introduces the basic principles and concepts of modern loss prevention planning and techniques. It explores large-scale considerations such as design and physical layout of areas in need of protection as well as practices utilized by individual loss prevention personnel.

**CRIM 2530 - Commercial Security** ☪  
4.5 - 0.0 - 4.5

This course provides an overview of protective services in a commercial environment where contemporary security management principles are applied. Topics include managing people and resources, security operations, emergency and risk management, and various security programs.

**CRIM 2540 - Fire and Alarm Security** ☪  
4.5 - 0.0 - 4.5

The course provides an overview of physical security systems that offer practical user-friendly principles for various levels of protection within an organization. Topics include alarm monitoring, electronic access, video surveillance systems, and crime prevention through environmental design concepts that provide a concentric layered approach to protection.

**CRIM 2550 - Principles of Security Safety** ☪  
4.5 - 0.0 - 4.5

This course introduces the basic principles, practices, and concepts of risk management and occupational health and safety. It also offers a study of the fundamental functions and responsibilities of security personnel as it relates to workplace safety efforts, as well as the role of outside entities and agencies such as OSHA (Occupational Safety and Health Administration).

**CRIM 2900 - Special Topics in Criminal Justice**  
Variable

This course permits instruction in special content areas not included in other courses of 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

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

This course provides instruction in the management of the dental assistant's role as a receptionist. 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, purchasing, and disbursements.

### DENT 1100 - Dental Anatomy

4.0 - 0.0 - 4.0

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: (1) Acceptance into the Dental Assisting program

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

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

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

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

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

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: (1) DENT 1230

This course provides the fundamentals of pediatric dentistry, orthodontics, and fixed and removable prosthodontics with detailed instructions of the dental assistant's role in each specialty area including instrumentation.

### DENT 1260 - Infection Control

2.0 - 3.0 - 3.0

This course covers infection control as it relates to dental assisting. Topics include universal precautions, methods of disinfection and sterilization, and proper use of chemicals and equipment.

### DENT 1280 - Dental Office Emergencies

2.5 - 0.0 - 2.5

Prerequisite: (2) Successful completion of DENT 1160; and current CPR card for healthcare workers

This course is a study of medical and dental emergencies that 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

2.0 - 1.5 - 2.5

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: (1) DENT 1310

This course provides instruction in accessory radiographic techniques, patient management, technique error identification, automatic film processing, and preliminary film interpretation. It also includes radiation biology, patient protection, operator protection, and extraoral and digital radiography.

**DENT 1350 - Chairside Assisting I****3.0 - 3.0 - 4.0**

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 of a dental patient.

**DENT 1360 - Chairside Assisting II****3.0 - 3.0 - 4.0**

Prerequisite: (1) DENT 1350

This course includes a detailed study and practical application of maintaining the operating field, rubber dam, removal of sutures, amalgam and composite instruments, placement and removal of matrices, placement of topical anesthetic, and preparation and proper handling of dental syringes.

**DENT 1370 - Chairside Assisting III****3.0 - 3.0 - 4.0**

Prerequisite: (1) DENT 1360

This course includes a detailed study and practical application of the following procedures: oral inspection, alginate impression, model trimming, coronal polish, placement and removal of retraction material, oral brush biopsy, and applying pit and fissure sealants.

**DENT 1991 - Clinical Experience I****0.0 - 7.0 - 2.5**

This course assigns Dental Assisting students to assist junior and senior students at Creighton University Dental College. Assignments include the areas of oral diagnosis, radiology, oral surgery, periodontics, endodontics, fixed and removable prosthodontics, orthodontics, pediatric dentistry, and operative dentistry. (The course meets for four weeks.)

**DENT 1992 - Clinical Experience II****0.0 - 24.0 - 8.0**

Prerequisite: (1) DENT 1991

Dental Assisting students complete their clinical experience in local dental offices, which include general practitioners, specialty offices, dental clinics, and government dental clinics. This experience involves working in each office for a minimum of two weeks, giving students final preparation and job opportunities for dental assisting. (The course meets for ten weeks.)

**DENT 1993 - Clinical Seminar****2.0 - 0.0 - 2.0**

Prerequisite: (1) DENT 1991

This course combines the sharing of Dental Assisting students' clinical experiences from DENT 1992 Clinical Experience II. It reviews the Occupational Safety Health Administration and dental assisting as a profession and discusses employment and legal and ethical issues of the dental profession.

**DESL - Diesel Technology****DESL 1000 - Diesel Preventive Maintenance****1.0 - 6.0 - 3.0**

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 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**

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**

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**

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**

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) Have completed 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****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****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

Co-requisite: 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

Co-requisite: EMSP 1010

This course covers advanced CDL training. Topics include instruction and hands-on 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 Department of Motor Vehicles 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 2100 - Heavy Duty Drivetrain****2.0 - 6.0 - 4.0**

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**

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**

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**

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**

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 1210 or verifiable experience; and DESL 1110

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****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**

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

Co-requisite: 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 co-requisite 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**

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**

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**

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 techniques and challenges related to technical and pictorial illustration. It also emphasizes media variety.

**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****3.5 - 3.0 - 4.5**

Prerequisite: (1) DIMA 1100 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****3.5 - 3.0 - 4.5**

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****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****3.5 - 3.0 - 4.5**

Prerequisite: (1) DIMA 1310

This course covers the history of graphic design from the invention of writing to the digital age.

**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**

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 pre-press 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**

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****4.5 - 0.0 - 4.5**

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**

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**

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 the techniques including Claymation, puppet-model-making, cut-out animation, lip-syncing, 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 create 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 - 4.5**

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 the major movements in illustration. Personal style of expression is developed through pictorial problem solving.

**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 presents challenges in the design of packages and the 3-D graphic design process. It emphasizes material selection, fabrication, and structural design.

**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 software.

**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, 3-D layers, cameras, rotoscoping and paint tools, and compositing. Projects are fewer and more in-depth than DIMA 1450 with 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 non-profit organization.

**DIMA 2510 - Interactive 2-D Design II****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 - 3D 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; 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**

This course works with 3-D game development software. Projects implement game design concepts and introduce scripting for interactivity. Students learn how to create a basic 3-D game.

**DIMA 2810 - Portfolio Development****3.5 - 3.0 - 4.5**

Prerequisite: (1) DIMA 2310

This is the DIMA graphic design capstone course. Students create a comprehensive final portfolio by revising projects from previous design courses and/or creating new work. The course also covers job-seeking skills specific to the design profession and requires students to create an identity suitable for job seeking.

**DIMA 2820 - Web Design Portfolio Development****3.5 - 3.0 - 4.5**

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 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****0.0 - 15.0 - 4.5**

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**

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**

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****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**

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 hands-on, project-based course.

**DRAF 2200 - Machine Design Principles****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**

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 Educator****ECED 1050 - Expressive Arts** **4.5 - 0.0 - 4.5**

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 three to eight years of age. This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 1060 - Observation, Assessment, and Guidance**  
**4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1010, ENGL 1210, ENGL 1220, or ENGL 1230

This course introduces a variety of observation, assessment, and guidance strategies used in early childhood education settings birth through age eight. This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 1110 - Infant and Toddler Development**   
**4.5 - 0.0 - 4.5**

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 (4) field experience contact hours within early childhood education settings.

**ECED 1120 - Preschool Child Development**   
**4.5 - 0.0 - 4.5**

This course focuses on typical and atypical development of the child ages three to five years in the domains of physical growth and motor skills, cognition and language, and social/emotional development. This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 1150 - Introduction to Early Childhood Education**   
**4.5 - 0.0 - 4.5**

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 are examined. This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 1160 - Early Language and Literacy**   
**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 eight. Students plan and prepare developmentally appropriate literacy and language activities. NOTE: This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 1220 - Prepracticum**  
**1.5 - 0.0 - 1.5**

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 1150; ECED 1060; ECED 1110; and ECED 1220

Students work with infants and toddlers (six weeks through two years of age) 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](http://www.mccneb.edu/ecp).

**ECED 1230 - School-Age Child Development and Programming**   
**3.0 - 0.0 - 3.0**

This course focuses on typical and atypical development of the child ages five through twelve 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 (4) field experience contact hours within early childhood education settings. NOTE: Course formerly School-Age Child Development

**ECED 1240 - Preschool- and School-Age Practicum**  
**0.0 - 9.0 - 3.0**

Prerequisite: (4) ECED 1110; ECED 1120; ECED 1050; and ECED 1221

Co-requisite: 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 assigned instructor. NOTE: The co-requisite ECED 1230 can be taken concurrently or previously completed. Students enrolling in the ECED practica should follow the procedures located on the Early Childhood Practicum website at [www.mccneb.edu/ecp](http://www.mccneb.edu/ecp).

**ECED 1260 - Children's Health and Nutrition** ☪  
**4.5 - 0.0 - 4.5**

Students gain an understanding of the inter-relatedness of health, safety, and nutrition in the life of a young child, birth through age eight. 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 (4) field experience contact hours within early childhood education settings.

**ECED 2050 - Children with Exceptionalities** ☪  
**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 (4) field experience contact hours within early childhood education settings.

**ECED 2060 - Early Childhood Education Curriculum Planning**  
**4.5 - 0.0 - 4.5**

Prerequisite: (3) ECED 1240; ECED 1150; and ECED 1160

This course prepares students to plan a developmentally appropriate curriculum and environments for children three to eight 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 (4) field experience contact hours within early childhood education settings.

**ECED 2061 - Child Guidance Techniques**  
**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 eight 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 (4) field experience contact hours within early childhood education settings.

**ECED 2070 - Family and Community Relationships** ☪  
**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 (4) field experience contact hours within early childhood education settings.

**ECED 2090 - Early Childhood Student Teaching Practicum**  
**0.0 - 18.0 - 6.0**

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 assigned instructor. NOTE: Students enrolling in the ECED practica should register through the Early Childhood Practicum website at [www.mccneb.edu/ecp](http://www.mccneb.edu/ecp).

**ECED 2095 - Current Topics in Early Childhood Education** ☪  
**4.5 - 0.0 - 4.5**

Prerequisite: (1) Completion of 15 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 portfolio that demonstrates their competencies. This course requires a minimum of four (4) field experience contact hours within early childhood education settings.

**ECED 2450 - Administration of Early Childhood Education Programs** ☪  
**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 (4) field experience contact hours within early childhood education settings.

**ECED 2900 - Special Topics in Child Care**  
**Variable**

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

4.5 - 0.0 - 4.5

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

4.5 - 0.0 - 4.5

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

1.0 - 0.0 - 1.0

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

1.0 - 0.0 - 1.0

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

1.0 - 0.0 - 1.0

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

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

4.5 - 0.0 - 4.5

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**

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**

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**

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**  
**7.0 - 0.0 - 7.0**

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 over-current 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**

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**  
**9.0 - 0.0 - 9.0**

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**  
**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 dc/ac power supply.

**ELEC 1100 - IT Essentials PC Repair I**  
**4.5 - 0.0 - 4.5**

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**

The goal of this course is to introduce students to fundamental networking concepts and technologies. The course materials assist students in developing the skills necessary to plan and implement small networks across a range of applications.

**ELEC 1210 - Cisco Routing**  
**9.0 - 0.0 - 9.0**

Prerequisite: (1) ELEC 1200

The goal of this course is for students to develop an understanding of how a router learns about remote networks and determines the best path to those networks. This course includes both static routing and dynamic routing protocols.

**ELEC 1300 - Radio Frequency Identification (RFID)**  
**4.5 - 0.0 - 4.5**

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

The goal of this course is for students to develop an understanding of how switches are interconnected and configured to provide network access to LAN users. This course also teaches how to integrate wireless devices into a LAN.

**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**  
**9.0 - 0.0 - 9.0**

Prerequisite: (1) ELEC 2220

The goal of this course is to introduce students to fundamental WAN concepts and technologies.

**ELEC 2900 - Special Topics in Electronics****Variable**

Prerequisite: (1) Instructor approval

This course permits instruction in special content areas not included in other courses of the Electronics Technology program.

**ELEC 2981 - Internship****Variable**

Prerequisite: (1) Instructor approval

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**

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****9.0 - 0.0 - 9.0**

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****6.5 - 0.0 - 6.5**

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 with grades of C or better

This course trains students to effectively use the National Electrical Code.

**ELTR 2331 - Electric Service and Installation****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**

This course permits instruction in special content areas not included in other courses in the Electrical Technology program.

**ELTR 2981 - Internship****0.0 - variable - 8.0**

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 - 1.0**

This course will teach the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, and foreign-body airway obstruction (choking).

The student will learn to recognize heart attack and stroke symptoms in adults and breathing difficulty in children. This course teaches the skills needed to respond to 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 life-threatening emergencies such as cardiac arrest, respiratory arrest, and foreign-body 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**

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**

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. NOTE: Requirements for this course include a completed application, completed background check form, and proof of current CPR Certification for Healthcare Provider or CPR for the Professional Rescuer.

**EMSP 1105 - EMT Refresher****3.0 - 0.0 - 3.0**

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.

**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 person 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.

**EMSP 1112 - Advanced EMT Part 2 of 2****10.0 - 6.0 - 12.0**

Prerequisite: (1) EMSP 1110

Co-requisite: 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

Co-requisite: EMSP 1112

The clinical/field component of the Advanced EMT (AEMT) program allows the student to synthesize cognitive psychomotor skills. The clinical/field co-requisite 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**

Co-requisite: EMSP 1440

The Paramedic Part 1 of 4 course is the first in a sequence of four courses that provide 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 co-requisite 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

Co-requisite: 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 co-requisite clinical/field component in order to sit for the Paramedic certification exam.

**EMSP 1123 - Paramedic Clinical/Field Component Part 1 of 3****0.0 - 20.0 - 6.5**

Prerequisite: (1) EMSP 1120

Co-requisite: EMSP 1122

The clinical/field component of the paramedic program allows the student to synthesize cognitive and psychomotor skills. As the clinical/field co-requisite 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

Co-requisite: 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 - 20.0 - 6.5**

Prerequisite: (2) EMSP 1122 and EMSP 1123

Co-requisite: 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 co-requisite 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****10.0 - 6.1 - 12.0**

Prerequisite: (2) EMSP 1124 and EMSP 1125

Co-requisite: 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 - 21.0 - 7.0**

Prerequisite: (2) EMSP 1124 and EMSP 1125

Co-requisite: 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 co-requisite 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**

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  
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

Advance 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  
2.0 - 0.0 - 2.0**

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 life-threatening 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 - 1.0**

Prerequisite: (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 life-threatening 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)  
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 life-threatening emergencies such as cardiac arrest and respiratory arrest in the pediatric patient. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy in the pediatric mode. The student will 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 1431 - PALS Renewal**

**1.0 - 0.0 - 1.0**

Prerequisite: (4) EMSP 1000; must be an advanced healthcare provider; instructor approval; and current PALS provider card

This course will review with the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest and respiratory arrest in the pediatric patient. The student will review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy in the pediatric mode. The student will 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**

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**

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, Pre-Test, Care Under Fire, Tactical Field Care, Tactical Evacuation Care, Lessons Learned, and Updates.

**EMSP 1470 - EMS Safety Course****1.0 - 0.0 - 1.0**

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****4.5 - 0.0 - 4.5**

Prerequisite: (1) Assessment testing

This is an interdisciplinary course that provides a foundation for learning by having students engage in a program of coordinated reading, writing, and discussion assignments including analyzing, questioning, summarizing, and responding to various forms of media, which may include paragraphs, journals, videos, magazine ads, textbooks, and short novels. It addresses vocabulary development and grammar in the context of student writing and speaking.

**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****4.5 - 0.0 - 4.5**

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or college-level reading assessment test score

Students develop rhetorical knowledge; practice critical reading, thinking, and writing; and use a writing process to draft, revise, and edit texts in a variety of genres with an emphasis on thesis-driven essays. This is a level I class.

**ENGL 1020 - English Composition II****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1010, 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 that answers a question. Students research, analyze, and organize primary and secondary sources of information and demonstrate their critical thinking through different types of writing assignments that include supported persuasion, argument, and a research paper.

**ENGL 1210 - Applied Communications****4.5 - 0.0 - 4.5**

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or college-level reading assessment test score

This course prepares students for the communication challenges of today's workplace by surveying business and technical communication principles. Skills learned include writing clearly and concisely, collecting and organizing information and graphics, applying the writing process to a variety of workplace documents, and communicating effectively, both verbally and nonverbally. This is a level I class.

**ENGL 1220 - Technical Writing****4.5 - 0.0 - 4.5**

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or college-level reading assessment test score

Students produce technical papers and reports demonstrating clear written expression of ideas. Important considerations include the format, organization, logic, and sentence construction of reports. Students focus on the process of writing, including designing, revising, and editing technical documents. This is a level I class.

**ENGL 1230 - Business Writing****4.5 - 0.0 - 4.5**

Prerequisite: (2) Assessment testing or ENGL 0960; and RDLS 0100 or college-level reading assessment test score

Students learn to write clear, coherent, effective business letters, memoranda, and job resumes that reflect considerations of writer intent and reader response. The course stresses appropriate organization and format as well as revising and editing to produce an acceptable copy. This is a level I class.

**ENGL 1240 - Oral and Written Reports** ~Ⓢ**4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1010, 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

This course places students into the complementary roles of editors and writers and guides them through two instructive publishing projects in an effort to introduce students to processes and resources for professional publication of literary writing. As editors, students participate in the process of producing a college literary magazine. As writers, students employ standard writing and research techniques and their knowledge of the editorial process to prepare their own works for submission to reputable publications.

**ENGL 2210 - Grant Writing****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1240 strongly recommended or another English level II course

This course provides students with a strong foundation in the purpose, conventions, research, and writing necessary to obtain grant money. This course also emphasizes persuasive and analytical writing styles relevant to the nonprofit community. Students examine and participate in the processes used to research, generate, write, and submit proposals that ultimately lead to approval. Students engage in activities that demonstrate how to identify need within the community, evaluate existing services and projects, and research. Students follow and successfully utilize the proposal and grant writing process from the initial idea through the final submission. Students review and revise several pieces throughout the course, which ultimately lead to the final proposal.

**ENGL 2450 - Introduction to Literature** ~Ⓢ**4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1020 or ENGL 1240

Students explore prose, fiction, poetry, and drama by authors representing a variety of cultural and ethnic backgrounds. Students increase skills in writing about literature as an imaginative medium.

**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****4.5 - 0.0 - 4.5**

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 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 I****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****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: (1) College-level reading, writing, and math proficiency. High school math (basic algebra skills) and high school science is recommended.

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 their engineering program.

**ENGR 1020 - MATLAB Programming****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 their engineering program.

**ENGR 1050 - Introduction to Engineering****3.0 - 0.0 - 3.0**

This course provides beginning engineering students with an insight into professional development, strategies for academic success, processes and models for personal development, and an orientation to the engineering education system. These topics are presented with lecture and video media.

**ENGR 1060 - Introduction to Computer-Aided Graphics****2.5 - 6.0 - 4.5**

A good engineer requires knowledge of both board and computer-aided drafting. This course introduces board and computer-aided drafting and includes topics such as lettering, orthographics, sections, dimensions, descriptive geometry, revolutions, and graphics.

**ENGR 2010 - Elements of Electrical Engineering I****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 their engineering program.

**ENGR 2020 - Engineering Statics****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 their engineering program.

**ENTR - Entrepreneurship****ENTR 1050 - Introduction to Entrepreneurship****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

Prerequisite: INFO 1001 Information Systems and Literacy 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****4.5 - 0.0 - 4.5**

Prerequisite: (2) ENTR 1050 and ENTR 1060; or ENTR 1050 and ENTR 2040. INFO 1001 Information Systems and Literacy 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 2900 - Special Topics in Entrepreneurship Variable**

Prerequisite: (1) Instructor approval

This course permits instruction in special content areas not included in other Entrepreneurship courses.

**ENTR 2981 - Entrepreneurship Internship Variable**

Prerequisite: (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 Entrepreneur 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) Assessment testing

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) ESLX 0811

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) Assessment testing or ESLX 0812

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) ESLX 0813

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) Assessment testing or ESLX 0814

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) Assessment testing or ESLX 0832

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) ESLX 0823

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) Assessment testing

Co-requisite: WORK 0300

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) ESLX 0831

Co-requisite: WORK 0310

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) Assessment testing or ESLX 0832

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) ESLX 0823 and ESLX 0833; or assessment

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****6.0 - 0.0 - 6.0**

Prerequisite: (2) ESLX 0824 and ESLX 0834; or assessment

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) ESLX 0812 and ESLX 0832; or assessment; 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 1000 - Medical English for ESL Healthcare Professionals****4.5 - 0.0 - 4.5**

Prerequisite: (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 1100 - Principles of Property and Casualty Insurance 4.5 - 0.0 - 4.5

This course serves as an introduction to the field of property and casualty insurance and the needs of individuals or organizations for various categories of protection. Topics include fire, accident, theft, property damage, liability insurance, and the legal environment of insurance products. The course also introduces the basic concepts of product design, underwriting, pricing, marketing, and claim administration. (Cross-listed as INSU 1100)

### FINA 1200 - Wealth-Building Fundamentals and Personal Finance ☼ 4.5 - 0.0 - 4.5

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 ☼ 4.5 - 0.0 - 4.5

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 ☼ 1.0 - 0.0 - 1.0

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 break-even analysis.

### FINA 2100 - Introduction to Investments ☼ 4.5 - 0.0 - 4.5

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 ☼ 4.5 - 0.0 - 4.5

This course presents basic investment concepts such as investment markets and transactions, investment planning and information, and investment risk and return. The course also explores the investment environment by examining the role and scope of various investment vehicles including common stock, fixed-income securities, derivative securities, and mutual funds.

### FINA 2206 - Fundamentals of Financial Planning I 4.5 - 0.0 - 4.5

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 critical thinking skills relative to analytical concepts, ethics, regulations, and laws.

### FINA 2209 - Risk Management and Insurance ☼ 4.5 - 0.0 - 4.5

This course analyzes financial risk and the preservation of personal assets. Course content provides an overview of the risk management process with a primary focus on various lines of insurance (life, health, disability, long-term care, homeowners, auto, and liability).

### FINA 2210 - Financial Planning Principles ☼ 4.5 - 0.0 - 4.5

This course is the first in the series of financial planning courses (income tax planning, retirement planning, and estate planning). Course content provides an overview of the financial planning process including concepts related to the accumulation, preservation, and transference of wealth.

### FINA 2215 - Asset Management 4.5 - 0.0 - 4.5

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 - 4.5

Prerequisite: (1) FINA 1310

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 ☼ 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, dividend 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** ☪**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** ☪**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** ☪**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.

**FINA 2315 - Retirement Plans: Basic Features****4.5 - 0.0 - 4.5**

This course provides a historical review of the development of private pension plans (money purchase, profit sharing, savings plans, ESOPs, 401(k) plans, IRAs, SIMPLE plans, and plans for the self-employed), as well as an overview of plan objectives, design features, and qualified plan legal requirements. Retirement plan design and participant-directed investing, investment education, and distribution planning are also explored.

**FINA 2316 - Defined Benefits****4.5 - 0.0 - 4.5**

The course examines the characteristics and administration of defined benefits retirement plans. It offers a discussion of the differences between defined benefit and defined contribution plans, as well as the influences affecting usage of such plans. 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** ☪**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.

**FINA 2321 - Compensation Concepts and Principles****4.5 - 0.0 - 4.5**

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**

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** ☪**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.

**FINA 2400 - Financial Counseling** ☪**4.5 - 0.0 - 4.5**

This course explores the foundations of financial counseling including the communication and listening processes, decision making and problem solving, and various strategies and tactics utilized in effective counseling relationships.

**FINA 2410 - Consumer Credit** ☪**4.5 - 0.0 - 4.5**

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** ☞**4.5 - 0.0 - 4.5**

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**

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**

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**4.5 - 0.0 - 4.5**

Prerequisite: (5) FINA 2200, FINA 2210, FINA 2310, FINA 2320, and 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.

**FINA 2981 - Internship in Finance Variable**

Prerequisite: (2) MCC completion of at least 24.0 credit hours of the program's major requirements; and 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 the 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 to 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. NOTE: Course 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. NOTE: Course 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 an Operational Level Hazardous Material Responder.

**FIST 1040 - Principles of Property and Casualty Insurance** ☞**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. NOTE: Course 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. NOTE: Course formerly Fire Science Professional: Health and Welfare

**FIST 1070 - Fire Protection Systems****2.0 - 3.0 - 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. NOTE: Course formerly Hydraulics and Water Supply

**FIST 1090 - Firefighter I****7.0 - 8.0 - 10.0**

Prerequisite: (1) Medical screening compliant with NFPA 1582  
Co-requisite: 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**

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 Federal 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****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. NOTE: Course 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****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. NOTE: Course 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 - 3.0**

Prerequisite: (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****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 will 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 program.

**FREN - French****FREN 1010 - Beginning French I****7.5 - 0.0 - 7.5**

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 II** ☞**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 I** ☞**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**

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**

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 1050 - Introduction to Human Geography** ☞**4.5 - 0.0 - 4.5**

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** ☞**5.0 - 3.0 - 6.0**

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** ☞**5.0 - 3.0 - 6.0**

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**

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 2150 - World Regional Geography** **4.5 - 0.0 - 4.5**

The course expands students' knowledge of the world. 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.

**GEOG 2900 - Special Topics in Geography**  
**Variable**

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**

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** **4.5 - 0.0 - 4.5**

This course is an overview of the components of the healthcare delivery system in the United States including organizations that provide healthcare, regulations and standards that apply to healthcare organizations, reimbursement methods used, and the professionals that provide the services. Students examine the organizational component of healthcare facilities: the governing board and administration; the health information management profession and the functions of a health information manager in the healthcare environment; and the resources used by HIM professionals/medical staff. This course introduces students to the broad range of career options in the health information management profession.

**HCIA 1020 - Healthcare Data and Electronic Health Records****4.5 - 0.0 - 4.5**

Prerequisite: (1) HCIA 1010

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 assuring compliance with requirements: qualitative and quantitative analysis of healthcare data, forms, and screen design and control. This course includes virtual lab activities.

**HCIA 1030 - Healthcare Data Management and Use** **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. Topics include numbering, filing, and indexing systems; record retention policies and procedures; organization, requirements and contents of disease registries (e.g., cancer registry); data abstracting and data query techniques; and management of medical transcription services. Data management methods range from paper to electronic-based information systems, including optical imaging and automatic speech recognition. This course includes virtual laboratory activities.

**HCIA 2010 - Healthcare Statistics** **4.5 - 0.0 - 4.5**

Prerequisite: (3) HCIA 1030, 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 additional spreadsheet techniques and fundamentals of database creation and use. Software application exercises are included.

**HCIA 2020 - Health Law, Privacy, and Ethics** **4.5 - 0.0 - 4.5**

Prerequisite: (1) HCIA 1020

Students study legal principles related to healthcare and health information: confidentiality, privacy, and subpoenas for patient information; security of patient records; legal terminology and procedures; court systems; liability of healthcare providers; patient rights; healthcare compliance; and healthcare ethics. Students utilize software to process requests for health information.

**HCIA 2030 - Performance Improvement** **4.5 - 0.0 - 4.5**

Prerequisite: (2) HCIA 2010 and HCIA 2020

The course encompasses the investigation of peer review in healthcare, the components of quality management programs in healthcare organizations including quality/performance improvement, utilization management, risk management, safety, and credentialing. The course includes virtual lab exercises.

**HCIA 2421 - Clinical Coding I** **4.5 - 0.0 - 4.5**

Prerequisite: (4) HIMS 1180, HIMS 1310, HIMS 1410, and HCIA 1030

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. The course includes hands-on activities with coding software. NOTE: Course formerly Clinical Coding I with Lab

**HCIA 2431 - Clinical Coding II** **4.5 - 0.0 - 4.5**

Prerequisite: (1) HCIA 2421

Students gain knowledge of the CPT/HCPCS medical coding system, official coding guidelines, and assignment of codes to various clinical statements, scenarios, reports, and patient records. Students explore utilization of coding resources and tools. The course includes hands-on virtual lab exercises. NOTE: Course formerly Clinical Coding II with Lab

**HCIA 2432 - Clinical Coding III** **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 procedure groupings, applying DRGs, and ICD-10 PCS. The course includes hands-on virtual lab exercises. NOTE: Course formerly Hospital and Long-Term Care Coding

**HCIA 2982 - HCIA Capstone** **4.5 - 0.0 - 4.5**

Prerequisite: (1) Instructor approval

Students discuss current issues and trends in the healthcare field that impact health information management practice, the professional rights and responsibilities of health information management professionals, career management strategies, and review and prepare for the national registration exam. This course is for students near completion of the associate degree program in HCIA.

**HCIA 2983 - HCIA Practicum** **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. Based on state requirements, students must complete 40 hours of work for each credit hour.

## HIMS - Health Information Management Systems

**HIMS 1111 - Healthcare Careers**  **4.5 - 0.0 - 4.5**

This course provides an overview of the healthcare field. Topics include healthcare delivery systems, history of healthcare, careers in healthcare, personal qualities of healthcare workers, principles of teamwork, time management, human growth and development, cultural diversity, safety issues, and computer technology in healthcare settings. 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**  **4.5 - 0.0 - 4.5**

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**  **4.5 - 0.0 - 4.5**

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** 🗣️ 🌐  
**4.5 - 0.0 - 4.5**

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** 🗣️ 🌐  
**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** 🗣️ 🌐  
**4.5 - 0.0 - 3.0**

Prerequisite: (1) HIMS 1130

This course introduces the health insurance field, managed healthcare, and legal and regulatory issues, as well as reimbursement methodologies. It explores various types of insurance while focusing on claim form instructions, billing and collection practices, and reimbursement guidelines including the audit and appeals process. Students complete CMS 1500 claim forms and apply basic Medicare and Medicaid rules, commercial insurance regulations, and regulations of worker's compensation claims. This course uses DRG process as well as Encoder to code ICD-9, CPT, and HCPCS.

**HIMS 2110 - Principles of Management in Healthcare** 🗣️ 🌐  
**4.5 - 0.0 - 4.5**

Prerequisite: (1) HIMS 1110, HIMS 1111, 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** 🗣️ 🌐  
**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 I** 📄**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 II** 📄**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** 📄 📄**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 basic knowledge of the ICD-9-CM, ICD-10-CM, HCPCS, and CPT classification systems to code diagnoses, conditions, and procedures.

**HIMS 2420 - Coding and Billing I** 📄 📄**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-9-CM and ICD-10-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 II** 📄 📄**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****Variable**

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 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.

**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****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 - 9.0 - 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**

This course is a survey of American history from discovery through and including the Civil War and reconstruction.

**HIST 1020 - U.S. History from 1865 to Present****4.5 - 0.0 - 4.5**

This course is a survey of American history from the end of the Civil War to the present.

**HIST 1050 - Introduction to Black History****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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**

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**

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**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

This course is a survey of global military history which 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 century. 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****Variable**

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****4.5 - 0.0 - 4.5**

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. NOTE: Course formerly Introduction to Record Keeping

**HITP 1010 - Introduction to Health Information Technology****4.5 - 0.0 - 4.5**

This course provides an overview of the administrative side of healthcare. Topics include the culture of healthcare, the path of a claim, types of payers and stakeholders in the healthcare process, unique requirements for different specialty areas, history of technology in healthcare, ethics in healthcare, and current issues in the automation and streamlining of the business of healthcare.

**HITP 1115 - Electronic Health Records (EHR) Lab Experience****4.5 - 0.0 - 4.5**

This course prepares students to use electronic records in a medical practice. They discuss 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. NOTE: Course formerly Using Electronic Health Records

**HITP 1145 - Healthcare Applications I****4.5 - 0.0 - 4.5**

This hands-on course prepares students for working in today's healthcare environment. Topics include an overview of healthcare in the United States, ethical and legal issues, and professionalism in the workplace. Students also practice working with patient charts by completing exercises in a simulated hospital computer system.

**HITP 1310 - Principles of Healthcare Management****4.5 - 0.0 - 4.5**

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**

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****4.5 - 0.0 - 4.5**

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 II****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. NOTE: Course formerly Workflow Redesign

**HITP 1512 - Usability and Health Information Systems** 🏠  
**4.5 - 0.0 - 4.5**

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** 🏠  
**4.5 - 0.0 - 4.5**

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** 🏠  
**4.5 - 0.0 - 4.5**

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** 🏠  
**4.5 - 0.0 - 4.5**

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. NOTE: Course formerly Training and Instructional Design

**HITP 2040 - Information Systems in Healthcare**  
**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 of 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**

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 - 1.0**

This course is an introduction to the Horticulture, Land Systems, and Management program (HLSM). This course should be taken during the first quarter of enrollment.

**HLSM 1010 - Introduction to Horticulture**  
**5.0 - 3.0 - 6.0**

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, 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**  
**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: (1) HLSM 1010

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 the 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**

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 or instructor approval

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 the 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 shrub, and the proper environment for growth. Also included is an awareness of potential diseases and insects and the correct pruning techniques, equipment, and proper time to spray.

**HLSM 1160 - Culinary Herb Cultivation****3.0 - 2.0 - 3.0**

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: (2) HLSM 1010 and HLSM 1030

This course provides advanced practice leading to excellence in designing for specialty events.

**HLSM 1220 - Floral Design: Tablescales and Hospitality****2.0 - 3.0 - 3.0**

Prerequisite: (1) HLSM 1210

This course provides advanced practice leading to excellence in designing for home decor, edible arrangements, 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 twentieth 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 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 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 three-dimensional 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****2.0 - 3.0 - 3.0**

Prerequisite: (1) HLSM 1220

This course provides advanced practice leading to excellence in designing for weddings.

**HLSM 2210 - Interiorscaping****3.5 - 1.5 - 4.0**

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****2.0 - 3.0 - 3.0**

Prerequisite: (1) HLSM 1010

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 the 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****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 plant 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 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****3.5 - 3.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****2.0 - 3.0 - 3.0**

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****1.0 - 6.0 - 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: (1) HLSM 1010

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****4.5 - 0.0 - 4.5**

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 must be enrolled 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** **4.5 - 0.0 - 4.5**

Prerequisite: (1) BIOS 1310 or BIOS 2310

Nutrition represents an important health concern throughout the life cycle. This course includes human nutrition, 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 Basic Skills 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 patient of any age in a long-term care facility. NOTE: Additional requirements for this course include a completed program application, a copy of TB test results, a completed background check form, and proof of English proficiency.

**HLTH 1210 - LPN - Certified LPN-C****6.0 - 0.0 - 6.0**

Prerequisite: (3) Current LPN license in Nebraska or compact state; completion of pharmacology entrance exam with a minimum score of 76 percent; and submission of an application

This course is designed to prepare the Licensed Practical Nurse (LPN) to perform those duties consistent with the expanded scope of practice as outlined in Title 172, Chapter 102. Upon successful completion of this course, LPNs are eligible to take the Nebraska State LPN-Certification examination.

**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****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****4.5 - 0.0 - 4.5**

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**

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****Variable**

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**

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****3.0 - 1.5 - 3.5**

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 with a grade of C or better in both

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 video-taped interviews.

**HMSV 1140 - Assessment, Case Planning, and Management****4.5 - 0.0 - 4.5**

Prerequisite: (1) LMHP or PLMHP; or (2) ENGL 1020 and PSYC 1010 with a grade of C or better in both

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 the 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****4.5 - 0.0 - 4.5**

Prerequisite: (1) LMHP or PLMHP; or ENGL 1010

Co-requisite: For those without LMHP or PLMHP, PSYC 1010

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 co-requisite 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

Co-requisite: HMSV 1130; 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 co-requisites HMSV 1130 and HMSV 2150 must be taken concurrently or previously completed.

**HMSV 2110 - Group Counseling****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1020

Co-requisite: 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 co-requisite 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 service 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

Co-requisite: For those without LMHP or PLMHP, HMSV 1140

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 and aspects of treatment that address resistance, denial, minimization, relapse and relapse prevention, cross-addiction, spirituality issues, and the influence of other self-help groups including 12-step groups. NOTE: For those without LMHP or PLMHP, the co-requisite 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

Co-requisite: 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 co-requisite SOCI 1010 must be taken concurrently or previously completed.

**HMSV 2150 - Multicultural Counseling****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1020

Co-requisite: 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 co-requisite 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 persons.

**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 MATH 1220 or higher

Co-requisite: 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 co-requisite HMSV 2050 must be taken concurrently or previously completed.

**HMSV 2450 - Crisis Intervention****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****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**

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** ☪**4.5 - 0.0 - 4.5**

This course is a survey of the development of Western civilization focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy. It concentrates on the evolution of the Western tradition during the classical period.

**HUMS 1110 - Origins of the Humanities** ☪**4.5 - 0.0 - 4.5**

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 - Humanities I: Medieval - Renaissance** ☪**4.5 - 0.0 - 4.5**

Prerequisite: None, but ENGL 1010 and 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.

**HUMS 1130 - Humanities II: Modern World** ☪**4.5 - 0.0 - 4.5**

Prerequisite: None, but ENGL 1010 and 1020 are strongly recommended.

This course is an interdisciplinary overview of the development of Western culture from the Baroque period through the present.

**HUMS 1140 - Multi-Cultural Humanities I****4.5 - 0.0 - 4.5**

This course is a comparative study of non-Western cultures focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy. It addresses achievements of selected indigenous and non-indigenous cultures of the Americas.

**HUMS 1150 - Multi-Cultural Humanities II: The Humanities in the Non-Western World** ☪**4.5 - 0.0 - 4.5**

Prerequisite: None, but ENGL 1010 and 1020 are strongly recommended.

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.

**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 examining film theory and ideology. It covers how film works technically, stylistically, aesthetically, and culturally.

**HUMS 2900 - Special Topics in the Humanities****Variable**

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 - 6.0**

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 - 6.0**

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**

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****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/medium-temperature) 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

Co-requisite: 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 co-requisite 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

Co-requisite: 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 repair such as washers, dryers, and microwaves and gives special attention to safety. NOTE: The co-requisite HVAC 1020 can be taken concurrently or have previously been completed.

**HVAC 1540 - All-Weather Systems (Conventional)****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****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 - 0.5 - 2.0**

Prerequisite: (1) HVAC 1010 or instructor approval

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**

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**

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)****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**

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 of the Heating, Air Conditioning, and Refrigeration program.

**HVAC 2981 - Internship****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**

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**

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**

This course is designed to introduce students to skills generally required for entry-level 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**

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****3.0 - 0.0 - 3.0**

Prerequisite: (1) INCT 1025

This course builds upon the Lead Abatement Worker course in eliminating lead-based 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**

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**

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 areas. 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**

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 1302 - Stationary Engineering I**  
**3.0 - 0.0 - 3.0**

This course provides basic instruction in low- and high-pressure boilers in the stationary engineering field.

**INCT 1303 - Basic Plumbing**  
**6.0 - 1.5 - 6.5**

This course includes an introduction to the plumbing trade through safety, types of plumbing supplies, the designing and installation of plumbing systems, 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**

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**

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**  
**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**

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**

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**

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**

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****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****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 2302 - Stationary Engineering II****4.0 - 0.0 - 4.0**

Prerequisite: (1) INCT 1302

This course provides advanced instruction in steam boilers and related systems in the stationary engineering field.

**INCT 2410 - CNC Milling****4.0 - 0.0 - 4.0**

Prerequisite: (1) INCT 1410 with a grade of C or better

Students focus on the basic fundamentals of programming and operation of the computer numerical control milling machine. Through classroom study and lab projects, students gain an understanding of and experience in the equipment operation. With an understanding of this equipment, an otherwise difficult or impossible machine, students complete projects with ease.

**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 2422 - Intermediate Grinding Machines****4.0 - 0.0 - 4.0**

Prerequisite: (1) INCT 1422 with a grade of C or better

Students learn operations using the standard surface grinder. The course covers holding attachments, setup work, and the grinding of material to predetermined sizes.

**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 2900 - Special Topics in Industrial and Commercial Trades****Variable**

Prerequisite: (1) Instructor approval

This course permits instruction in special content areas not included in other courses of the Industrial Trades program.

**INCT 2981 - Internship****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**

This course introduces students to information systems and information literacy concepts needed in the day-to-day academic course of study. Skills are developed using library, research, and productivity software. Students use existing and emerging technologies to complete project-based assignments. NOTE: Students desiring to take a basic introductory computer course should enroll in WORK 0900 Introduction to Microcomputer Technology.

**INFO 1002 - Introduction to Information Technology****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.

**INFO 1003 - Introduction to Computer Programming****5.0 - 0.0 - 5.0**

This course provides the beginning programmer with a firm foundation in concepts used in structured and object-oriented computer programming. The course emphasizes the use of mathematical problem solving and logic needed to understand a problem. Students use flowcharts, pseudo code, and algorithms to document logic as a solution to a programming problem. Students use current programming software to implement the logic as a computer program. NOTE: Students enrolling in INFO 1003 need to understand the basics of how to use a personal computer (use Windows, save files, and print documents); therefore, it is recommended that students complete INFO 1001 prior to or concurrently with INFO 1003.

**INFO 1005 - Keyboarding****1.5 - 1.5 - 2.0**

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 who can type 30 words per minute can test out of INFO 1005.

**INFO 1007 - Introduction to Object-Oriented Computer Programming****3.0 - 0.0 - 3.0**

This class is for experienced programmers who want to transition from a system-building 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, real-world 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****4.5 - 0.0 - 4.5**

This course explores the use of technology in today's business environment. Students explore various methods of effective business communication including written business communications. Topics include exploring several types of Microsoft Office computer applications commonly used in offices as well as the detailed use of Microsoft Outlook software.

**INFO 1009 - Introduction to Cloud Computing****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 towards 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 (IaaS). 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** **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** **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. NOTE: Course formerly Project Management I

**INFO 1012 - Electronic Filing and Calculating** **4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1001

Co-requisite: 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 ten-key desktop electronic calculator for basic math problems, decimals, percentages, fractions, combined operations, petty cash accounts, payroll, mark up and mark down, invoices, and banking records. NOTE: The co-requisite MATH 1220 can be taken concurrently or have previously been completed.

**INFO 1013 - Keyboard Skillbuilding** **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 21 wpm.

**INFO 1023 - Networking Essentials**  **4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1002

This course is the foundational networking course and prepares students for the advanced IT courses. The fundamentals of national and international networked communications including standards, data communications, local area networking, wide area networking, virtual computing, and wireless communications are covered. WAN technologies and hardware as well as emerging data network technologies, mobile, and nomadic computing are also covered.

**INFO 1110 - Windows Operating Systems I**  **4.5 - 0.0 - 4.5**

Prerequisite: (2) INFO 1001 and INFO 1003

This course introduces students to the Microsoft Windows desktop operating system. Students learn fundamental concepts to effectively use and manage the Microsoft Windows desktop operating system. Many of the course objectives comply with industry standard certification exam objectives. NOTE: Course formerly Operating Systems I

**INFO 1111 - Linux Operating Systems I** **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.

**INFO 1112 - Introduction to IBM i** **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 - Operating Systems II** **4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1110

This course provides a technical overview of the operating system and advanced disk and system management. Students install the operating system and then optimize and protect it. Students consider the operating system as a stand-alone system, a client on a network, and a network operating system. The course maps to many industry certification objectives. NOTE: Course formerly Operation Systems II

**INFO 1121 - Linux Operating Systems II****4.5 - 0.0 - 4.5**

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 1210 - Microsoft Word I****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, and templates. Students learn to enhance the visual display and clarity of documents by using various customizing and enhancement features. In addition, the course covers working with multiple documents, using basic file management techniques, inserting graphic elements, and exploring the development of web pages.

**INFO 1212 - Spreadsheets****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. NOTE: Course formerly Spreadsheets I

**INFO 1213 - Database Fundamentals****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1001

This course introduces database operations using Microsoft Access. It focuses on database concepts, creation of tables, queries, forms, and reports. Students also import and export data and manage and secure a database. NOTE: Course formerly Database Fundamentals I

**INFO 1214 - Business Presentations****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 text slides, use drawing tools, add clip art, and prepare a full multi-slide presentation. The mid-term and final projects require students to create and present a slideshow to the class while practicing professional behavior, dress, and speaking manner. This course covers the certification objectives for the Microsoft certification.

**INFO 1215 - Document Processing****4.5 - 0.0 - 4.5**

Prerequisite: (3) INFO 1008; INFO 1013; and INFO 1210

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****4.5 - 0.0 - 4.5**

Prerequisite: (2) ENGL 1010 and INFO 1001

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 social media and careers, diversity, interview techniques, note-taking skills, new employee skills, professional telephone use, business etiquette and protocol, decision-making strategies, professional image, business ethics, personal organization, problem-solving techniques, stress management control, communication through body language, professional office behavior, and sexual harassment.

**INFO 1220 - Microsoft Word II****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1210

Students use the advanced features of Microsoft Word such as auto text, mail merge, shared documents, macros, footnotes, cross-references, borders, tables, and fill-in forms to efficiently produce professional documents. This course also includes an introduction to creating documents regarded as desktop publishing projects. This course completes the objectives needed for Microsoft certification.

**INFO 1240 - Integrated Applications for IT Support****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. NOTE: Course formerly Integrated Applications for the Help Desk.

**INFO 1311 - Web Page Creation****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.

**INFO 1314 - Photoshop** ☪**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** ☪**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: (1) INFO 1314 and INFO 1315

This course presents the use of Dreamweaver to create, edit, and manage well-designed 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 - Microsoft Web Editor****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1220

Students learn how to create, manage, and publish websites using Microsoft Expression Web. They learn how to plan and create websites, work with templates, format text, and use CSS. They also learn how to work with images, create links, add multimedia, create tables, apply interactive behaviors, create forms, and optimize a website for publishing.

**INFO 1319 - Flash** ☪**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** ☪**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** ☪**4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1401

Students learn how to identify and follow best practices when working with hardware components and systems found in an enterprise environment. The focus is on the hardware and software used to create a fault-tolerant, redundant configuration that meets the requirements of a company's disaster recovery plan or business continuity plan.

**INFO 1421 - Virtualization, Remote Access, and Monitoring****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1002

This course introduces both hardware and software methods used to implement virtualization and the server specifications required to implement it. Students explore multiple vendor solutions and get hands-on experience with remote access configuration and monitoring found in today's enterprise IT and data center environments.

**INFO 1431 - Data Center Physical Design** ☪**4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1401

This course introduces the basic components in a modern data center including physical infrastructure, racks, power, cooling, cabling, data storage, Data Center Infrastructure Management (DCIM), and facility maintenance practices. Students also learn about data center standards and certifications as well as design architecture for green and cloud-based data centers.

**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. NOTE: Course formerly Programming for Robotics I

**INFO 1521 - Java Programming I****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 - C++ Programming I****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1003

This course introduces the C++ programming language. It emphasizes problem-solving 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 I****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****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. NOTE: Course formerly Visual C# Programming I

**INFO 1531 - Java Programming II****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****4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1522

This course covers data types, one- and multi-dimensional arrays, lists and strings, records, records (C++ structs), classes and data abstraction, object-oriented software development, pointers, dynamic data, linked structures, and recursion.

**INFO 1533 - Visual Basic.NET II****4.5 - 0.0 - 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** **4.5 - 0.0 - 4.5**

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. NOTE: Course formerly Visual C# Programming II

**INFO 1620 - Introduction to Database Design**  **4.5 - 0.0 - 4.5**

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, multi-user database architectures, web database design concepts, database administration functions, and the 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: Course formerly Database Design, Implementation, and Management

**INFO 1801 - A+ Certified Professional I** **4.5 - 0.0 - 4.5**

This first course assists students with taking the CompTIA A+ certification exams (exams 220-601 and 220-602). It introduces personal computer hardware and software and presents the fundamental skills and concepts needed on the job as an IT technician. Topics include installing, upgrading, repairing, and configuring personal computer hardware and operating systems.

**INFO 1802 - A+ Certified Professional II** **4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1801

This course provides the essential skills and information needed to troubleshoot, optimize, and perform preventive maintenance of personal computer hardware and operating systems. This class completes the requirements needed for the students to take the CompTIA A+ certified professional certification exams (220-601 and 220-602).

**INFO 1811 - Information Storage and Management****4.5 - 0.0 - 4.5**

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 5.0 and vCenter Server 5.0. 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 VMware components.

**INFO 2122 - UNIX Scripting** **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. NOTE: Course formerly UNIX Scripting I

**INFO 2135 - Network Infrastructure** **4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 1023

This course is for support professionals who are responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows Server 2008 products and who are considering becoming Microsoft Certified Technology Specialist and Microsoft Certified IT Professional certified. The course focus on network infrastructure configuration gives new and experienced users alike the opportunity for in-depth study of the core technologies in Windows Server 2008. NOTE: This course substitutes for INFO 2130.

**INFO 2142 - Windows Active Directory** 🏠**4.5 - 0.0 - 4.5**

Prerequisite: (1) INFO 2135

This server administration course introduces the Microsoft Windows Server 2008 Active Directory and prepares students to plan, configure, and administer one. The course uses Windows Server 2008 and mapping to the Microsoft Certified Technology Specialist 70-640 certification exam.

**INFO 2145 - Windows Server Administration** 🏠**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, which includes responsibility for the operations and day-to-day management of an infrastructure of servers for an enterprise organization. It exposes students to scripts and batch files and remote administration by using terminal server or administration tools installed on the local workstation. Other topics include managing the server operating system, file, and directory services; software distribution and updates; profiling and monitoring assigned servers; and troubleshooting.

**INFO 2240 - Office Technology Capstone** 🏠**5.0 - 0.0 - 5.0**

Prerequisite: (1) Instructor approval

This capstone course allows students to apply all of the skills and knowledge gained from previous office technology courses. Students focus on advanced-level usage of the Microsoft Office suite to work independently on professional tasks common in a business environment. Students research ideas and find information to make informed decisions, problem solve, and develop their critical-thinking skills. Students also practice their presentation and leadership skills by creating and delivering presentations. Students should have extensive experience using the Microsoft Office software. Students take this course toward the end of their program. NOTE: Course formerly Integrated Microsoft Office

**INFO 2260 - Workplace Technologies** 🏠**4.5 - 0.0 - 4.5**

Prerequisite: (2) INFO 1210 and INFO 1212

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. NOTE: Course formerly Network Applications and Support in the Workplace

**INFO 2261 - Software Applications Support** 🏠**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. NOTE: Course 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** 🏠**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. NOTE: Course 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 native application development for small-form factor devices. Students create mobile applications for mobile platforms such as Apple iOS (iPad and iPhone) and Google Android devices. The Corona SDK development platform is used to examine best practices for using data and multimedia elements in mobile applications designed with Corona. Students are introduced to the Lua programming language and instructed on best practices for leveraging the scripting language within the Corona Application Programming Interface. Additionally, students learn the fundamentals for distributing mobile applications in various mobile application marketplaces.

**INFO 2521 - Intel Assembly Language I****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++****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 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. NOTE: Course formerly IBM i DB2 Database Management I

**INFO 2630 - Structured Query Language (SQL)****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****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****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 PL/SQL 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****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****4.5 - 0.0 - 4.5**

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****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****4.5 - 0.0 - 4.5**

Prerequisite: (2) INFO 1003 and INFO 2340

The course examines programming techniques to complete a web-based application using MySQL, JavaScript, and PHP. Students explore methods to implement dynamic web content using client-side and server-side programming and maintaining database security while ensuring valid user interoperability. Discussion centers on best practices and students use MySQL, JavaScript, and PHP to implement a finished product.

**INFO 2805 - Network and Information Security Basics****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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, well-designed 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****4.5 - 0.0 - 4.5**

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****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**

This course permits instruction in special content areas not included in other courses of the Information Technology program.

**INFO 2940 - Database and Web Programming Capstone**   
**4.5 - 0.0 - 4.5**

Prerequisite: (1) Instructor approval

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**   
**4.5 - 0.0 - 4.5**

Prerequisite: (1) Instructor approval

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. NOTE: Course formerly Networking Capstone

**INFO 2944 - Web Development Capstone**   
**4.5 - 0.0 - 4.5**

Prerequisite: (1) Instructor approval

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**  
**4.5 - 0.0 - 4.5**

Prerequisite: (1) Instructor approval

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 2980 - Office Technology Practicum**  
**0.0 - 6.0 - 2.0**

Prerequisite: (2) INFO 2240 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 - IT 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**   
**4.5 - 0.0 - 4.5**

This course is a comprehensive survey of the technical and socioeconomic aspects of the life and health insurance business. It includes coverage, marketing, underwriting, pricing, funding alternatives, contracts, claims, program design concepts, and administrative systems and procedures.

**INSU 1100 - Principles of Property and Casualty Insurance****4.5 - 0.0 - 4.5**

This course serves as an introduction to the field of property and casualty insurance and the needs of individuals or organizations for various categories of protection. Topics include 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. (Cross-listed as FINA 1100)

**INSU 2421 - Insurance Law****4.5 - 0.0 - 4.5**

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**

This course teaches basic skills in using equipment and interpreting the symbols and language used in illustrating interiors and furniture in plan, elevation, and perspective.

**INTD 1210 - Interior Design I****4.5 - 0.0 - 4.5**

Prerequisite: (1) INTD 1100 (may be taken concurrently with INTD 1210)

This course is an introduction to the basic concepts of visual perception and the elements and principles of composition. It emphasizes selecting, arranging, and ordering design elements to achieve aesthetic and functional interior spaces. Students work on experimental projects to be completed using a variety of design techniques. NOTE: The prerequisite INTD 1100 Illustration Techniques for Interiors can be taken concurrently.

**INTD 1220 - Interior Design II****4.5 - 0.0 - 4.5**

Prerequisite: (1) INTD 1210

This course is a study of the knowledge, judgment skills, and application skills necessary for identifying, coordinating, arranging, and calculating the need requirements of the following components of interior design: furniture, window treatments, wall and ceiling surfaces, flooring, and lighting. Students develop portfolio items using drafting and art techniques.

**INTD 1230 - Interior Design III****2.0 - 3.0 - 3.0**

Prerequisite: (1) INTD 1220

This course includes a study of the principles and application skills involved in determining space needs for group, private, and support space classifications.

**INTD 1260 - Color Theory****4.0 - 1.5 - 4.5**

This course is a study of the principles of color and application theories. It explores color relationships and application to various interior environments through class application projects. Projects use a variety of techniques to develop solutions to assigned problems.

**INTD 1310 - Fundamentals of Textiles****4.5 - 0.0 - 4.5**

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 materials and interior products through the use of sampling techniques. The goal is to develop hands-on skills in specifying textiles and materials for functional and aesthetic residential and commercial interiors.

**INTD 1410 - History of Architecture and Interiors****4.5 - 0.0 - 4.5**

This course is a study of the architecture, ornament, and interior styles from antiquity to modern times. 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**

This course is a study of furniture styles from antiquity to modern times. Students become familiar with various historical movements or periods in furniture design and learn to recognize characteristics of each style. NOTE: INTD 1410 is highly recommended but not required prior to taking INTD 1420.

**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 responsibilities and duties of the professional designer and the designer's assistant. Upon completion of the course, students are able to identify and compare trade sources and ordering and receiving procedures for residential and non-residential clients.

**INTD 2900 - Special Topics in Interior Design  
Variable**

Prerequisite: (1) Completion of 30.0 or more hours in the Interior Design program

This course permits instruction in special content areas not included in other courses in the Interior Design program.

**INTD 2940 - Interior Design IV****2.0 - 3.0 - 3.0**

Prerequisite: (1) INTD 2250

This capstone course stresses development and refinement of portfolio elements into a presentation-ready package. It 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.

**INTD 2981 - Internship****0.0 - 11.0 - 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**

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****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  
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 4.5 - 0.0 - 4.5

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 4.5 - 0.0 - 4.5

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 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 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 4.5 - 0.0 - 4.5

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 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 memory-building exercises. Self-evaluation of practice activities is an essential element.

### LANG 2240 - Simultaneous Interpretation - Legal 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**   
**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 memory-building exercises. Self-evaluation of practice activities is an essential element.

**LANG 2340 - Simultaneous Interpretation - Medical**   
**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**  
**Variable**

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**

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**

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 with a grade of C or better in both; 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**   
**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 2240 - Legal Research and Writing II**  
**4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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 studies the tools and procedures of pre-trial 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****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****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.

## 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

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. NOTE: Course formerly MATH 0920. 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

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 fast-paced course that contains all of the content of both MATH 0930 Beginning Algebra Part 1 and MATH 0931 Beginning Algebra Part 2 in a single course. Topics include positive and negative real-numbers, solving linear equations and inequalities along with their applications, integer exponents, operations with polynomials, factoring, rational expressions, equations of lines, and graphing of equations and inequalities. NOTE: MATH 09XX courses carry credit for MCC only; the credit does not transfer nor does it apply toward graduation.

### MATH 1220 - Business 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 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 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** **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** **4.5 - 0.0 - 4.5**

Prerequisite: (1) Within two years prior to beginning the course, either successful completion of MATH 1310 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** **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** **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** **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 studies 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 studies 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** **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 discusses polar coordinates and relates them to calculus.

**MATH 2412 - Calculus III** **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

Co-requisite: 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 co-requisite 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

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: (3) Admission into the Medical Assisting program; 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****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**

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**

This course surveys music from 1800 to the present including compositions representative of blues, jazz, rock, and contemporary forms. It examines music of non-Western cultures as well.

**MUSC 1050 - Music Appreciation****4.5 - 0.0 - 4.5**

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**

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****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****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 I****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 evidence-based 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****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 safe-decision 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

Co-requisite: 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****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 - 6.0 - 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****1.0 - 1.0 - 1.5**

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

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

This course permits instruction in special content areas not included in other Physical Education courses.

## PHIL - Philosophy

**PHIL 1010 - Introduction to Philosophy** ☪  
4.5 - 0.0 - 4.5

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** ☪  
4.5 - 0.0 - 4.5

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** ☪  
4.5 - 0.0 - 4.5

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** ☪  
4.5 - 0.0 - 4.5

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** ☪  
4.5 - 0.0 - 4.5

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**  
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 concepts in ethics (social justice, moral dilemmas), metaphysics (materialism, idealism, realism), and aesthetics (classical and modern theories of art).

**PHIL 2600 - Contemporary Issues in Philosophy**  
4.5 - 0.0 - 4.5

The course discusses and 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**  
5.0 - 3.0 - 6.0

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**  
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. NOTE: Course formerly PHOT 1130

**PHOT 1020 - Color Photography****5.0 - 3.0 - 6.0**

Prerequisite: (2) PHOT 1010 and ARTS 1020 with a grade of C or better in both

This is an introductory course in color photography covering subtractive color theory, the use of color negative, and color printing procedures. NOTE: Course formerly PHOT 1310

**PHOT 1025 - Digital Photography****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. NOTE: Course formerly PHOT 1210

**PHOT 1500 - Moving Image Lab****5.0 - 3.0 - 6.0**

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 both PHOT 1010 and PHOT 1015 with a grade of C or better

This advanced-level course continues the investigation and application of black and white photography by using professional 4x5 camera and fiber-based black and white printing applications. NOTE: Course 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 a grade 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. NOTE: Course 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 a grade 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 both PHOT 1025 and PHOT 1535 with a grade 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. NOTE: Course 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 a grade 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. NOTE: Course 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 a grade 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. NOTE: Course formerly PHOT 2210

**PHOT 2525 - Advanced Digital Photography****5.0 - 3.0 - 6.0**

Prerequisite: (2) Successful completion of PHOT 1545 and PHOT 2025 with a grade 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. NOTE: Course formerly PHOT 2211

**PHOT 2535 - Advanced Large Format Photography****5.0 - 3.0 - 6.0**

Prerequisite: (2) Successful completion of both PHOT 1535 and PHOT 2015 with a grade of C or better

This course continues and refines the use of the 4x5 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 a grade of C or better

This advanced-level course continues the use of professional equipment. It focuses more on complex and complicated situations and subjects. NOTE: Course formerly PHOT 2410

**PHOT 2550 - Advanced Experimental Photography****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. NOTE: Course formerly PHOT 2270

**PHOT 2560 - Portfolio Development and Professional Practice****5.0 - 3.0 - 6.0**

Prerequisite: (2) Successful completion of both PHOT 2015 and PHOT 2025 with a grade 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. NOTE: Course formerly PHOT 2180

**PHOT 2900 - Special Topics in Photography****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) College-level reading, writing, and math proficiency; and MATH 1310

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include kinetics, vectors, Newton laws, work, and energy.

**PHYS 110B - Principles of Physics IB****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 110A

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include momentum, rotational motion, gravitation, and fluids.

**PHYS 110C - Principles of Physics IC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 110B

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include kinetic theory, heat, and thermodynamics.

**PHYS 111A - Principles of Physics IIA****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 110C

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include waves, sound, and electricity.

**PHYS 111B - Principles of Physics IIB****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 111A

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include electricity and magnetism.

**PHYS 111C - Principles of Physics IIC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 111B

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) that include lecture and lab. All three courses must be successfully completed to transfer as a semester-length course. Students are strongly encouraged to stay with the same instructor throughout their physics series of five-week sessions. Topics include light, optics, and select topics in modern physics.

**PHYS 1010 - Applied Physics****2.5 - 6.0 - 4.5**

Prerequisite: Take MATH 0931 or MATH 0960

This course provides a general understanding of the basic principles and practical applications of mechanics, heat, electricity, magnetism, and light. It includes both lecture and lab components.

**PHYS 210A - General Physics IA****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and MATH 2410

This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include kinematics, vectors, Newton laws, work, and energy.

**PHYS 210B - General Physics IB****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 210A

This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include momentum, rotational motion, gravitation, and fluids.

**PHYS 210C - General Physics IC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 210B

This course is the first of a calculus-based college physics sequence. The course is taught as three courses (PHYS 210A, 210B, and 210C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include heat, thermodynamics, and kinetic energy.

**PHYS 211A - General Physics IIA****2.0 - 1.5 - 2.5**

Prerequisite: (3) College-level reading, writing, and math proficiency; MATH 2410; and PHYS 210C

Co-requisite: MATH 2411

This course is a continuation of calculus-based college physics. The course is taught as three courses (PHYS 211A, 211B, and 211C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include waves, sound, and electricity. NOTE: The co-requisite 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) College-level reading, writing, and math proficiency; and PHYS 211A

This course is a continuation of calculus-based college physics. The course is taught as three courses (PHYS 211A, 211B, and 211C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include electricity and magnetism.

**PHYS 211C - General Physics IIC****2.0 - 1.5 - 2.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and PHYS 211B

This course is a continuation of calculus-based college physics. The course is taught as three courses (PHYS 211A, 211B, and 211C) that include lecture and lab. All three must be successfully completed to transfer as a semester-length course. Topics include light, optics, and select topics from modern physics.

**PHYS 2900 - Special Topics in Physics****Variable**

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

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

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 and, 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

3.5 - 0.0 - 3.5

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

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**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 4.5**

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****4.5 - 0.0 - 1.0**

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**

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**

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 - 4.5**

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**

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**

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 1320 - Fuel Handling 3.0 - 0.0 - 3.0**

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**

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 2310 - Steam Plant Operation I**  
**4.5 - 0.0 - 4.5**

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. Note: The requisite INCT 2302 can be taken concurrently or have previously been completed.

**PROT 2320 - Steam Plant Operation II**  
**4.5 - 0.0 - 4.5**

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. Note: The co-requisite INCT 2302 can be taken concurrently or have previously been completed.

**PROT 2330 - Steam Plant Operation III**  
**6.0 - 0.0 - 6.0**

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. Note: The co-requisite INCT 2302 can be taken concurrently or have previously been completed.

**PROT 2410 - Nuclear Plant Operation I**  
**4.5 - 0.0 - 4.5**

Prerequisite: (4) CHEM 1212; 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**

This course permits instruction in special content areas related to the Process Operations Technology program.

## PSYC - Psychology

**PSYC 1000 - Psychology for Everyday Living**  
**4.5 - 0.0 - 4.5**

This course provides a survey of the major themes in psychology and explores applications for daily living. Topics include adult development, personal problem solving 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**

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** ∩  
4.5 - 0.0 - 4.5

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** ∩  
4.5 - 0.0 - 4.5

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** ∩  
4.5 - 0.0 - 4.5

Prerequisite: (2) PSYC 1120 or ECED 1110; and ECED 1120

This course examines current cognitive theories utilized in the field of education. The course makes 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** ∩  
4.5 - 0.0 - 4.5

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** ∩  
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** ∩  
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** ∩  
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 SOCI 2450)

**PSYC 2550 - Popular Readings in Social Science** ∩  
4.5 - 0.0 - 4.5

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 pseudo-therapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended. (Cross-listed as SOCI 2550)

**PSYC 2650 - Research Methods** ∩  
4.5 - 0.0 - 4.5

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 quasi-experimental), 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**  
0.0 - 0.0 - 1.0

This course permits instruction in special content areas that are not included in other Psychology courses.

## RDLS - Reading and Learning Skills

### **RDLS 0098 - Power Reading I**

**3.0 - 0.0 - 3.0**

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**

**3.0 - 0.0 - 3.0**

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**

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. Students need basic writing skills, including grammar and spelling, in order to successfully use course words in proper context. This is especially true for the online version of the course, which requires numerous written assignments.

### **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 Academic Resource Center.

### **RDLS 1200 - College Success Strategies**

**4.5 - 0.0 - 4.5**

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.

### **RDLS 1220 - College Success Strategies for the Health Careers**

**4.5 - 0.0 - 4.5**

This course covers study and reading skills essential for success in college health career classes and life. Study skills include self-awareness, goal setting, time management, note taking, memory techniques, and test taking. Reading skills focus on critical thinking and textbook reading strategies. Other topics may include basic computer skills, college resources, and basic health career math.

## REES - Real Estate

### **REES 1000 - Real Estate Principles**

**4.5 - 0.0 - 4.5**

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**

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) Acceptance into the Respiratory Care Technology program

This course includes information about the manufacture, transport, and storage of medical gases. It introduces oxygen therapy techniques. Students learn the application of the following therapy modalities: aerosol and humidity therapy, incentive spirometry, resuscitation devices, and medical asepsis.

**RESP 1020 - Cardiopulmonary Anatomy and Physiology****4.5 - 0.0 - 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****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****2.0 - 0.0 - 2.0**

Prerequisite: (2) RESP 1991 and RESP 1031

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 1020 and RESP 1030

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****0.0 - 16.5 - 5.5**

Prerequisite: (2) RESP 1010 and RESP 1020

Students are assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. Along with an orientation to clinical policies and facilities, the course emphasizes the basics of oxygen therapy, patient assessment techniques, sustained maximum inspiration, medical aerosol and metered dose inhaler therapy, and medical asepsis.

**RESP 1992 - Clinical Practicum II****0.0 - 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 1992 and RESP 1041

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****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: (1) RESP 2994

This course provides a comprehensive review for the entry-level and advanced-level 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****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 health care 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**

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 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**

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**

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**

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**

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**

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 1140 - Intermediate REVIT (Structure)****4.0 - 0.0 - 4.0**

Prerequisite: (1) SCET 1130; or instructor approval

Hands-on experience with Autodesk REVIT Structure software allows students to continue the work started in SCET 1130. Students concentrate on schedules, family components, production of construction documents, and rendering.

**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

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) INFO 1001 and SCET 2220

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

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

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

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 2981 - Internship****0.0 - 15.0 - 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** **5.0 - 3.0 - 6.0**

Prerequisite: (2) College-level reading, writing, and math proficiency; and MATH 0931 or MATH 0960

This course is a survey in physical science with emphasis on scientific processes and combines both lecture and lab experiences. It emphasizes the chemical and physical principles needed to better understand the world. The course may also include topics from astronomy, geology, and meteorology.

**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) College-level reading, writing, and math proficiency; and MATH 0931 or MATH 0960

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** **0.0 - 4.5 - 1.5**

Prerequisite: (2) College-level reading, writing, and math proficiency; and MATH 0931 or MATH 0960

Co-requisite: 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 co-requisite SCIE 1300 can be taken concurrently or have previously been completed.

**SCIE 1400 - Introduction to Meteorology****5.0 - 3.0 - 6.0**

Prerequisite: (2) College-level reading, writing and math; and MATH 0931 or MATH 0960

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. This course includes both the lecture and lab components.

**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 college-level 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****5.0 - 3.0 - 6.0**

Prerequisite: (2) SLIS 1020 and successful completion of Benchmark I; 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**

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**

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**  
**3.5 - 0.0 - 3.5**

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**

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**

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 discusses 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**

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**

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****1.0 - 0.0 - 1.0**

This course provides knowledge of solar thermal systems (solar thermal includes 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**

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**

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****1.5 - 0.0 - 1.5**

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**

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**

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**

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**

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****1.5 - 0.0 - 1.5**

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**

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**

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

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

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**  
1.0 - 0.0 - 1.0

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

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

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

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

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

This course permits instruction in special content areas not included in other Sustainable Energy courses.

## SOCI - Sociology

**SOCI 1010 - Introduction to Sociology** 🏠 🗣️  
4.5 - 0.0 - 4.5

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** 🏠  
4.5 - 0.0 - 4.5

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** 🏠  
4.5 - 0.0 - 4.5

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** 🏠  
4.5 - 0.0 - 4.5

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** 🏠  
4.5 - 0.0 - 4.5

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** ☪**4.5 - 0.0 - 4.5**

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** ☪**4.5 - 0.0 - 4.5**

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** ☪**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 PSYC 2150)

**SOCI 2160 - Marital and Family Relationships** ☪**4.5 - 0.0 - 4.5**

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. NOTE: Course formerly Marriage and the Family

**SOCI 2310 - Criminology** ☪**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** ☪**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** ☪**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 PSYC 2450)

**SOCI 2550 - Popular Readings in Social Science** ☪**4.5 - 0.0 - 4.5**

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 pseudo-therapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended. (Cross-listed as PSYC 2550)

**SOCI 2650 - Research Methods** ☪**4.5 - 0.0 - 4.5**

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 quasi-experimental); 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****0.0 - 0.0 - 1.0**

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** ☪**4.5 - 0.0 - 4.5**

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**

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 Iowa 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**

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**

This class is an introduction to the study of 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 I****4.5 - 0.0 - 4.5**

Those in business are finding the need to interact more and more with Spanish-speaking customers. To better serve these customers, it is important to have a grasp of Spanish language and culture. This course 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****4.5 - 0.0 - 4.5**

Prerequisite: (1) SPAN 1050

Students continue to develop the skills in order to communicate at a more advanced level of Spanish in business settings.

**SPAN 1060 - Spanish for Healthcare I****4.5 - 0.0 - 4.5**

Those in the medical profession are finding that they need to help and serve more Spanish-speaking clients than they have in the past. To serve these clients better it is important that these medical professionals have a grasp of the Spanish language and culture. 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 II****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****7.5 - 0.0 - 7.5**

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****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, adjectives, and 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****Variable**

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****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 II****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 I****4.5 - 0.0 - 4.5**

Prerequisite: (1) SPAN 1061

This course reinforces and expands the skills learned in SPAN 1060 and SPAN 1061. It is taught primarily in Spanish and prioritizes oral communication. NOTE: Course formerly Intermediate Spanish for Medical Personnel I

**SPAN 2061 - Intermediate Spanish for Healthcare II****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. NOTE: Course formerly Intermediate Spanish for Medical Personnel II

**SPAN 2110 - Intermediate Spanish I****4.5 - 0.0 - 4.5**

Prerequisite: (1) SPANS 1120; SPAN 1061; or SPAN 1051

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 II****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.  
NOTE: Course formerly Spanish for Medical Personnel Internship

## SPCH - Speech

**SPCH 1110 - Public Speaking** 🗣️ 🎧  
4.5 - 0.0 - 4.5

Prerequisite: (1) ENGL 1010

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.

**SPCH 1120 - Argumentation and Debate**  
4.5 - 0.0 - 4.5

Prerequisite: (1) ENGL 1020; SPCH 1110; PHIL 1100; or instructor approval

Students experience a practical approach to the rudiments of argumentation and the debate. This course tests the 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

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

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** 🎭  
4.5 - 0.0 - 4.5

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**  
**3.0 - 3.0 - 4.0**

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**  
**2.5 - 4.5 - 4.0**

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**

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**

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 co-requisite.

**THEA 2031 - Playwriting II**  
**4.5 - 0.0 - 4.5**

Prerequisite: (1) THEA 2030 or instructor approval

This workshop offers further study, practice, and analysis of playwriting. Students examine play submission guidelines and play production considerations.

**THEA 2040 - Movement for the Actor**  
**4.5 - 0.0 - 4.5**

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**

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**

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**

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**

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 2480 - Introduction to Drama Literature I****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1020; or 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 ENGL 2480)

**THEA 2481 - Introduction to Drama Literature II****4.5 - 0.0 - 4.5**

Prerequisite: (1) ENGL 1020; or 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 ENGL 2481)

**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****1.5 - 0.0 - 1.0**

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**

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's 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**

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. Secondly, students work on actual productions to experience working under show conditions backstage.

**THEA 2982 - Cooperative Study II****0.0 - 14.5 - 4.0**

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. Secondly, students work on actual productions to experience working under show conditions backstage.

**THEA 2983 - Cooperative Study III****0.0 - 14.5 - 4.0**

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. Secondly, students work on actual productions to experience working under show conditions backstage.

**THEA 2984 - Cooperative Study IV****0.0 - 14.5 - 4.0**

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**

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**

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 ☺****4.0 - 1.5 - 4.5**

Co-requisite: UTIL 1030

This course instructs students in proper and safe skills to climb wooden structures.

**UTIL 1020 - Electricity I ☺****5.0 - 1.5 - 5.5**

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.

**UTIL 1030 - Ropes, Rigging, and Safety ☺****4.0 - 1.5 - 4.5**

Co-requisite: UTIL 1010

This course acquaints students with tools, equipment, basic rope knots, and splices.

**UTIL 1040 - Generator Theory****5.0 - 3.0 - 6.0**

Prerequisite: (1) UTIL 1020

Students study permanent magnet induction and synchronous ac generators while learning diagnosis and troubleshooting skills.

**UTIL 1110 - Line Construction I ☺****5.0 - 1.5 - 5.5**

Co-requisite: 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 co-requisite UTIL 1030 can be taken concurrently or have previously been completed.

**UTIL 1240 - Underground Distribution Systems I ☺****5.0 - 1.5 - 5.5**

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 ☺****5.0 - 1.5 - 5.5**

Prerequisite: (1) UTIL 1020

This course includes principles of electromagnetic induction, use and application of transformers, banking of transformers, maintenance, testing, and proper connection of transformers.

**UTIL 2030 - Secondary Electrical Systems ☺****4.0 - 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 2040 - Power Generator Applications****5.0 - 3.0 - 6.0**

Students study the specific application of stand-by and emergency power generation. This course covers theory and diagnostic applications.

**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****4.0 - 1.5 - 4.5**

Prerequisite: (9) 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****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****0.0 - 40.0 - 8.0**

Prerequisite: (1) Completion of Utility Line Technician program coursework

This is a supervised work experience for ten 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 - Video/Audio Communication Arts****VACA 1010 - Audio and Video Production Engineering****4.5 - 0.0 - 4.5**

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**

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****3.5 - 3.0 - 4.5**

Prerequisite: (1) PHOT 1500 or DIMA 1110

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. Course 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 Pro-Tools 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-chain 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. NOTE: Course 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 post-production 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 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 the local cable television channel.

**VACA 2981 - Internship****Variable**

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**

This course introduces the basic principles and techniques for safe set-up, shut-down, 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**

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**

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**

Students learn the fundamental skills required to create sculptures in steel and copper using oxy-acetylene welding and cutting processes and related metal-working 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 welding-related 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**

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**

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**

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**

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)****2.0 - 3.0 - 3.0**

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**  
**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)**  
**2.0 - 3.0 - 3.0**

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 root/face bend test specimens.

**WELD 1510 - Shielded Metal Arc Welding (Stick)**  
**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 E7018 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)**  
**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)**  
**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)**  
**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 pulse-arc 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-to-plate, 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)**  
**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 flux-core 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**  
**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**

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 0300 - Reading Comprehension for English Language Learners I**

**1.5 - 0.0 - 1.5**

Prerequisite: (1) Required based on placement testing, instructor recommendation, or students receiving two re-enrolls in another ESLX course.

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. ELL students gain skills in appropriate English communication structure, vocabulary, reading comprehension, and pronunciation.

**WORK 0310 - Reading Comprehension for English Language Learners II**

**1.5 - 0.0 - 1.5**

Prerequisite: (1) Required based on placement testing, instructor recommendation; or students receiving two re-enrolls in another ESLX course

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. ELL students gain skills in appropriate English communication structure, vocabulary, reading comprehension, and pronunciation.

**WORK 0400 - Reading Comprehension**  
**2.5 - 0.0 - 2.5**

Prerequisite: (1) Required based on placement testing

This course actively engages students in an individualized program that eliminates reading difficulties. Intensive small group tutoring helps students permanently improve reading skills and eliminate basic reading problems so they can easily and comfortably understand text. This course provides the reading foundation students need to attain success in other academic classes, including English, math, general education, and occupational courses while building self-esteem and confidence.

**WORK 0900 - Introduction to Microcomputer Technology**  
**4.5 - 0.0 - 4.5**

This course introduces students to essential technology skills by providing a beginning overview of basic microcomputer components and functions; computer-based 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**

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**

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**

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** ☞  
**Variable**

This course allows students to enhance their interpersonal skills, improve their ability to work in teams, learn to communicate effectively, think creatively, use problem-solving techniques, and explore competitive job-seeking strategies.

**WORK 1401 - Employability Skills for Process, Power, and Energy-Related Fields**  
**4.5 - 0.0 - 4.5**

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** ☞  
**3.0 - 0.0 - 3.0**

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 - 3.5**

This course introduces students to the basic concepts of interpersonal communication and enhances their ability to use effective interpersonal 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**  
**Variable**

Prerequisite: (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

**Kirk Ahrends**, *Dean of Applied Technology*, B.A., Central College of Iowa; M.A., Iowa State University; specialist degree, Drake University

**Carl Fielder**, *Director of Career Education*, B.A., Huron College; M.Ed., University of Northern Colorado; Ed.D., University of Nebraska–Lincoln

**Gregory Babst**, *Utility Line Instructor*, A.A.S., Northeast Community College

**Christian Beaty**, *Welding Technology Instructor*, A.A.S., Southeast Community College; member, American Welding Society

**John Berger**, *Electrical Technology Instructor*, state of Nebraska electrical contractor license; A.A.S., Metropolitan Community College

**Tim Bowling**, *Utility Line Technician and Electrical Instructor*, A.A.S., Metropolitan Community College

**Robert Boyer**, *Process Operations Technology Instructor*, A.A.S./HVACR, Metropolitan Community College; B.A., Bellevue University

**Alan Cox**, *Automotive Technology Instructor*, A.A.S., Metropolitan Community College; diploma, Greer Technical Institute; ASE master certified; factory training from Nissan, Ford, Mitsubishi, and General Motors

**Christopher Ellinwood**, *Welding Instructor*, A.S., Southeast Community College

**Donald Gilliland**, *Diesel Technology Instructor*, B.S., University of Nebraska–Lincoln

**Richard Hart**, *Architectural Design Technology Instructor*, B.A., Washington University; MBA, Webster University

**Lyle Hendrickson**, *Coordinator of Apprenticeship Programs and Industrial and Commercial Trades Instructor*, A.A.S., Metropolitan Community College

**Geoffrey Horejs**, *Electrical Technology Instructor*, A.A.S., Metropolitan Community College

**David Horst**, *Industrial and Commercial Trades Instructor*, B.S.E., University of South Dakota; journeyman, carpenter, Local 1715, Washington State; certified Armstrong floor covering installer

**John Knapp**, *Architectural Design Technology Instructor*, B.E.D., Kansas University; M.Ed., Iowa State University

**David Lueders**, *Mechanical Design Technology Instructor*, A.S., B.S., University of Nebraska

**Patrick McKibbin**, *Auto Collision Technology Instructor*

**Roger Miller**, *Construction Technology Instructor*, journeyman; carpenters apprenticeship; certificate, Nebraska Law Enforcement Training Center

**Richard Newcomer**, *Utility Line Technician Instructor*, journeyman; A.A.S., Metropolitan Community College; B.A., Bellevue University

**Darryl Partner**, *Truck Driving Instructor*

**Tom Price**, *Auto Collision Technology Instructor*, DuPont Refinishing Training Center–Missouri; certificate, U.S. Air Force

**James Revoy**, *Air Conditioning, Heating, and Refrigeration Technology Instructor*, certificate, Universal Trade School; B.S., University of Nebraska at Omaha

**Robert Ruther**, *Air Conditioning, Heating, and Refrigeration Technology Instructor*, certificate, Universal Technical Institute; A.A.S., Metropolitan Community College; heat pump certification, Carrier, York and Coleman

**Richard Sandvig**, *Truck Driving Instructor*, certified commercial motor vehicle third party examiner, state of Nebraska

**Trevor Secora**, *Construction Technology Instructor*, journeyman, carpenter, Local 444; A.A.S., Metropolitan Community College

**Yuliya Vishnevskaya**, *Civil Engineering Technology Instructor*, B.S., M.S., Ph.D., St. Petersburg Mining University–Russia; M.S., University of Nebraska–Lincoln

**Matthew Wagg**, *Diesel Technology Instructor*, A.A.S., Southeast Community College

## Business and Human Services Area

**Daryl Hansen**, *Dean of Business and Human Services*, B.A., Parsons College; M.A., University of Nebraska–Lincoln; M.S.W., University of Nebraska at Omaha

**Richard Carter**, *Economics and Business Instructor*, B.A., Texas A&M University; M.A., University of Oklahoma

**Carol Cleaver**, *Paralegal and Business Law Instructor*, A.A., Metropolitan Community College; B.A., University of Nebraska at Omaha; J.D., Creighton University

**Carol Gottuso**, *Management Instructor*, B.S., Creighton University; MBA, University of Kansas

**Robert Gronstal**, *Accounting Instructor*, B.S., Creighton University; MBA, University of Nebraska at Omaha; C.P.A. certificate, state of Nebraska

**Michelle Heard**, *Accounting Instructor*, B.A., MBA, Bellevue University

**Richard Jaeckel**, *Accounting and Management Instructor*, B.A., M.A., University of Northern Iowa

**William Jefferson**, *Accounting Instructor*, B.A., Ohio University; MBA, Wharton Division University of Pennsylvania

**Rita Kleeman**, *Accounting Instructor*, B.A., Briar Cliff University; C.P.A. license, state of Nebraska

**Lori Lothringer**, *Management and Accounting Instructor*, B.S.B.A., University of Nebraska at Omaha; MBA, University of Missouri–Kansas City; M.S., College of Financial Planning; Ph.D., Iowa State University; accredited financial counselor

**John Miller**, *Accounting Instructor*, A.A., Illinois Central College; B.S., Bradley University; M.S., Iowa State University; C.P.A. license, state of Nebraska

**Edward Napravnik**, *Accounting Instructor*, A.A., NCE School of Commerce; B.A., Buena Vista College; C.P.A. certificate, state of Nebraska

**Dawn Naumann**, *Human Services and Psychology Instructor*, B.S., University of Nebraska at Omaha; M.S., University of Nebraska at Kearney; certified social worker

**Heather Nelson**, *Entrepreneurship Instructor*, B.A., University of Nebraska–Lincoln; Executive MBA, University of Nebraska at Omaha

**Steven Nichols**, *Management Instructor*, A.A.S., Community College of the Air Force; B.S., Wayland Baptist University; M.A.M., MBA, Bellevue University

**William S. Pangle**, *Management Instructor*, B.S.B.A., University of Nebraska at Omaha; MBA, Creighton University

**Liliana Petersen**, *Business Management and Entrepreneurship Instructor*, B.A., Civil Engineering; M.S.-I.T.M., MBA, Creighton University; Ph.D., N. Balescu University

**Michael Rush**, *Human Services and Chemical Dependency Counseling Instructor*, B.S., M.S., Kearney State College; certified professional counselor; licensed mental health practitioner

**Daniel Smith**, *Business Management and Entrepreneurship Instructor*, A.S., Northwest Arkansas Community College; B.A., Brown/Northwest Culinary; B.S., M.S., Peru State College

**Josephine Wandel**, *Legal Assistant Instructor*, B.A., College of Saint Mary; J.D., Creighton University

**David Wilhelm**, *Finance and Management Instructor*, B.S., Arizona State University; MBA, University of North Texas

**H. Brock Williams**, *Management Instructor*, A.A., Golden Gate University; B.A., Campbell University; M.S., Central Michigan University; Ph.D., Capella University

**Idalene Richmond Williams**, *Accounting and Management Instructor*, B.S., University of Kansas; MBA, University of Nebraska at Kearney; Ph.D., Capella University; C.P.A. certificate, state of Nebraska; C.P.A. certificate, state of Texas

## English, English-as-a-Second-Language, and Reading Area

**TBA**, *Dean of English, English-as-a-Second-Language, and Reading*

**Sana Amoura-Patterson**, *English and Speech Instructor*, B.S., M.A., University of Nebraska at Omaha

**Margaret Burnett**, *English Instructor*, B.A., M.S.Ed., Southern Illinois University–Carbondale

**Cynthia H. Catherwood**, *English and Humanities Instructor*, B.A., M.A., Creighton University

**Jules DeSalvo**, *English Instructor*, B.A., M.A., Creighton University

**Michael L. Dickmeyer**, *English Instructor*, B.A., Sioux Falls College; M.A., Ed.S., University of Iowa

**Susan Ely**, *English Instructor*, B.A., M.A., University of Nebraska at Omaha

**Gary Evans**, *Reading Instructor*, B.S., M.A., University of Texas

**Helen Fountain**, *English Instructor*, B.A., M.A., University of Nebraska at Omaha

**Kris Fulkerson**, *English Instructor*, B.A., Creighton University; M.A., University of Nebraska–Lincoln

**Amanda (Dora) Gerding**, *English Instructor*, A.A.S., Minnesota State Community and Technical College; B.A., Minnesota State University; M.A., University of Nebraska at Omaha

**Diane Hocevar**, *Reading Instructor*, B.S., M.S., University of Nebraska at Omaha

**Debra Holst**, *Academic Foundations Instructor*, B.S., University of Nebraska at Omaha; M.S., University of Nebraska–Lincoln

**Ralph Hoover**, *English Instructor*, M.A., Washington State University

**Darin Jensen**, *English Instructor*, B.A., Bellevue University; M.A., Kansas State University

**Chad Jorgensen**, *English Instructor*, B.A., University of North Carolina; M.A., University of Nebraska at Omaha

**Sheryl Jouvenat**, *English-as-a-Second-Language Instructor*, B.S., University of Nebraska–Lincoln, M.A., Monterey Institute of International Studies

**Erin Joy**, *English Instructor*, B.A., M.A., University of Nebraska at Omaha; M.A., Iowa State University

**Elizabeth Kay**, *English Instructor*, B.A., Weber State University; M.F.A., University of Nebraska at Omaha

**Andrea Lang**, *English and Humanities Instructor*, B.A., Nebraska Wesleyan University; M.A., University of Nebraska–Lincoln

**Steve Lovett**, *English Instructor*, B.A., University of South Dakota; M.A., Creighton University

**Naomi Mardock**, *English-as-a-Second-Language Instructor*, B.A., University of Nebraska–Lincoln; M.A., School for International Training

**Brett Mertins**, *English Instructor*, B.A., M.A., University of Nebraska at Omaha

**Ed Pfeffer**, *English-as-a-Second-Language Instructor*, B.S., University of Nebraska–Lincoln; M.S., M.A., Ohio University

**Teri Quick**, *Reading Instructor*, B.S., Northwest Missouri State University; M.S., University of Nebraska at Omaha

**Kathryn Rieken-Thurber**, *Reading Instructor*, B.A., Buena Vista University; M.S., University of Nebraska at Omaha

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**Kym Snelling**, *English Instructor*, B.A., M.A., University of Nebraska at Omaha

**Katie Stahlnecker**, *English Instructor*, B.A., University of Nebraska–Lincoln; M.A., University of Nebraska at Omaha; Ph.D., University of Nebraska–Lincoln

**Sarah Staroska**, *English Instructor*, B.A., Creighton University; M.F.A., California College of Arts

**Melissa Tayles**, *English Instructor*, B.A., M.A., Fort Hays State University

**Marni Valerio**, *English Instructor*, Avenue Scholars Program, B.A., University of Dallas; M.A., University of Nebraska at Omaha

**Melissa Zimmer**, *Reading Instructor*, A.A., Jefferson Davis Junior College–Gulfport; B.S., Auburn University–Montgomery; M.S., University of Nebraska at Omaha

## Health and Public Services Area

**Stacey Ocander**, *Dean of Health and Public Services*, B.A., Wayne State College; M.A., Ed.D., University of South Dakota

**Diana Blum**, *Nursing Instructor*, A.S., B.S.N., College of Saint Mary; M.S.N., Nebraska Wesleyan University

**Cynthia Cronick**, *Dental Assisting Instructor*, A.A.S., Elgin Community College; B.S., Bellevue University; certified dental assistant

**Constance Crouch**, *Certified Nursing Assistant Instructor*, B.A., University of Northern Colorado; B.S.N., Nebraska Methodist College

**Paul Custer**, *Emergency Medical Services Instructor*, B.S., University of Nebraska at Omaha

**Peggy Dean**, *Emergency Medical Services Instructor*, NREMT-P; B.S., Creighton University

**John Detwiler**, *Respiratory Care Instructor*, certificate, Metropolitan Community College; A.A.S., Metropolitan Community College; B.S., University of Nebraska–Lincoln

**Kristin Engel**, *Nursing Instructor*, B.S.N., Nebraska Methodist College

**Charles Fairbanks**, *Criminal Justice Instructor*, B.A., University of Nebraska at Omaha; M.A., University of Nebraska at Kearney

**Cheryl Hartwell**, *Certified Nursing Assistant Instructor*, B.S.N., University of Nebraska Medical Center; registered nurse

**Craig Jacobus**, *Emergency Medical Services Instructor*, B.A., Trinity Christian College; EMT-P; Ingalls Hospital/South Cook County Emergency Medical Services System, EMSI, St. James Hospital, Chicago Heights; B.S., D.C., National College of Chiropractic Medicine

**Timothy Kelly**, *Respiratory Care Technology Instructor*, A.D., Platte Technical Community College; B.P.S., Bellevue University; R.R.T., National Board for Respiratory Care

**Peter Landmark**, *Emergency Medical Services Instructor*, B.S., Creighton University

**Dona Marotta**, *Medical Assisting Program Director and Instructor*, B.S., M.H.A., Bellevue University

**Jerald Moss**, *Respiratory Care Technology Program Director and Instructor*, diploma, Memorial Hospital School of Respiratory Therapy; R.R.T., National Board for Respiratory Care; B.A., Ottawa University; M.P.A., University of Nebraska at Omaha

**Nancy Pares**, *Nursing Program Director and Instructor*, B.S.N., University of Nebraska Medical Center; M.S.N., Nebraska Wesleyan University

**Jean Phelan**, *Nursing Instructor*, B.S.N., Creighton University; M.S., DePaul University

**Bobby Polk**, *Criminal Justice Program Director (Online) and Instructor*, A.A., Metropolitan Community College; B.A., Bellevue University; M.A., Pepperdine University

**Candace Ryan**, *Respiratory Care Technology Instructor*, B.S., Midland Lutheran College

**Diane Sjuts**, *Criminal Justice Program Director (On Campus) and Instructor*, B.A., Midland Lutheran College; M.S., Bellevue University

**Jeffrey Strawn**, *Fire Science Program Director and EMS and Fire Science Instructor*, B.A., Bellevue University; EMT certification, Creighton University

**Jean Templeton**, *Certified Nursing Assistant Instructor*, B.S.N., Mount Marty College; M.S.N., University of Nebraska College of Nursing

**Jennifer Todd**, *Dental Assisting Instructor*, certified dental assistant, Southeast Community College; B.A.S., M.S., Peru State College

**Joan Trimpey**, *Dental Assisting Instructor*, certified dental assistant, Southeast Community College; B.S., University of Nebraska–Lincoln

**Traci Warren**, *Nursing Instructor*, B.S.N., Clarkson College; M.S.N., Nebraska Wesleyan University

**John Whalen**, *Criminal Justice Instructor*, B.S., University of Nebraska at Omaha; M.S., University of Nebraska–Lincoln

**Alex Winter**, *Nursing Assistant Program Director and Instructor*, B.S.N., Clarkson College; M.S.N., Regis University

**Angela Wortman**, *Nursing Instructor*, A.S.N., Metropolitan Community College; B.S.N., University of Nebraska at Omaha

## Humanities and Visual Arts Area

**Tom McDonnell**, *Dean of Humanities and Visual Arts*, B.A., Iowa State University; M.A., Eastern Illinois University; Ed.D Northcentral University

**Alberto José Badillo**, *Spanish Instructor*, B.A., East Texas Baptist University; M.A., Stephen F. Austin State University; Ph.D., University of Nebraska–Lincoln

**Jamie Burmeister**, *Art Instructor*, B.A., Creighton University; M.S., University of Nebraska at Omaha; M.F.A., University of Nebraska–Lincoln

**Anne Burton**, *Art Instructor*, B.A., University of Richmond; M.F.A., University of Nebraska–Lincoln

**Jim Butkus**, *Photography Instructor*, B.A., Creighton University

**Laura Chambers**, *Humanities Instructor*, B.A., M.A., Creighton University

**Karina Clarke**, *Spanish Instructor*, B.A., Washington University in St. Louis; M.A., Loyola University

**Georgia Culliver**, *Speech Instructor*, B.A., College of Saint Mary; M.A., University of Nebraska at Omaha

**Adam Dienst-Scott**, *Photography Instructor*, B.F.A., Emporia State University; M.F.A., Kansas State University

**Lawrence Gawel**, *Photography Instructor*, B.F.A., Edinboro University; M.F.A., Pennsylvania State University

**James N. Hanson**, *Design, Interactivity and Media Arts Instructor*, certificate, Iowa Western Community College; B.A., Bellevue University

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**Alle Hitchcock**, *Spanish Instructor*, B.A., St. Louis University; M.A., Texas A&M University

**Patricia M. Hollins**, *Art Instructor*, B.F.A., Penn State University; B.S.Ed., University of Nebraska at Omaha; M.F.A., University of Illinois–Champaign

**Dallas Jurisevic**, *Spanish Instructor*, B.A., University of San Diego; M.A., New York University, Spain; Ph.D., University of Nebraska–Lincoln

**Robert Maass**, *Video and Audio Communications Instructor*, B.S., University of Nebraska at Kearney

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**Janet McCarthy**, *Philosophy Instructor*, B.A., M.A., Cleveland State University

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**Joseph Piper**, *Design, Interactivity and Media Arts Instructor*, B.F.A., University of Nebraska at Omaha

**Rayka Rush**, *Philosophy Instructor*, B.S., M.S., University of Zagreb (Croatia); Ph.D., Western Michigan University

**Nanci Stephenson**, *Interior Design Instructor*, B.S., M.S., University of Nebraska–Lincoln

**Cindy Stover**, *Speech Instructor*, B.S., Kearney State College; M.A., University of Nebraska at Kearney

**Shelia Talbitzer**, *Photography Instructor*, B.A., University of Nebraska–Lincoln; M.F.A., University of Notre Dame

**Virginia (Susan) Trinkle**, *Art History Instructor*, B.A., University of Nebraska–Lincoln; M.A., University of Notre Dame

**Kathryn Twit**, *Spanish Instructor*, B.A., Creighton University; M.A., University of Wisconsin

**Mary L. Umberger**, *Speech Instructor*, B.A., University of Nebraska–Lincoln; M.A., Ph.D., University of Maryland–College Park

**Jan Vierk**, *Speech, Humanities, and English Instructor*, B.A., University of Nebraska at Kearney; M.A., Ph.D., University of Nebraska–Lincoln

**James Wolf**, *Design, Interactivity and Media Arts Instructor*, B.A., Eastern Michigan University

**Scott Working**, *Theatre Instructor*, B.F.A., University of Nebraska at Omaha; M.F.A., University of Iowa

## Information Technology and E-Learning Area

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**Larry E. Anderson Jr.**, *Microcomputer Programming Technology Instructor*, A.A., Metropolitan Community College; B.S., Bellevue University; Microsoft certified systems engineer; MCP W2K; network + certification; certified ethical hacking and countermeasures

**Edward Bohlman**, *Computer Programming Technology Instructor*, B.A., Yankton College–South Dakota; M.A., University of South Dakota–Vermillion

**William Bowers**, *Computer Programming Technology Instructor*, B.S., University of Nebraska at Omaha; M.S., Bellevue University

**Jamie R. Bridgham**, *Microcomputer Programming Technology (Networking) Instructor*, A.A., Metropolitan Community College; B.G.S., University of Nebraska at Omaha; M.S., Bellevue University

**Arthur Brown**, *Information Technology Instructor*, A.A.S., Metropolitan Community College; B.S., Bellevue University

**Mary Cantwell**, *Health Information Management Systems Instructor*, A.S., College of Saint Mary

**Christopher Chisholm**, *Information Technology Instructor*, A.S., B.S., M.S., University of Nebraska at Omaha

**Rebecca Conner**, *Information Technology Instructor*, B.S., University of Nebraska at Omaha

**Karen Fowler**, *Health Information Management Systems Instructor*, A.A., Metropolitan Community College; B.S., Kutztown University; M.Ed., College of New Jersey

**Gary Gilbody**, *Information Technology Instructor*, B.A., University of North Carolina; B.S., North Carolina State University; M.S. Information Technology, Capella University; M.S. Education, Capella University

**Dawn Goodsell**, *Health Information Management Systems Instructor*, A.S., B.S., Clarkson College

**George Grigas**, *Computer Programming Technology Instructor*, M.A.M., Bellevue University; B.G.S., University of Nebraska at Omaha

**Mansel Guerin**, *Microcomputer Technology Instructor*, A.S., Metropolitan Community College; B.S., Bellevue University; M.S., Bellevue University

**Steven Hall**, *Electronics Technology Instructor*, A.A., Metropolitan Community College; B.S., Bellevue University

**Janice Hess**, *Health Information Management Systems Instructor*, B.S., M.Ed., University of Nebraska–Lincoln

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**Janice Rowe**, *Information Technology Instructor*, B.S., Loyola Marymount University; M.S., Air Force Institute of Technology

**Michelle Rule**, *Health Information Technology Instructor*, B.S., Wayne State College

**Hugh Schuett**, *Computer Programming Technology Instructor*, B.S., University of Nebraska at Omaha

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**Theodore Tucker**, *Computer Programming Technology Instructor*, A.A., Western Nebraska Community College; B.S., University of Nebraska at Kearney; M.A.M., Bellevue University

**Carol Widman**, *Health Information Management Systems Instructor*, B.S., Bellevue University

## Institute for Faculty Excellence (IFEX)

**H. Lynn Bradman**, *CLEAR (Center for Learning Effectiveness, Assessment, and Research) Coordinator*, B.A., M.A., University of Nebraska–Lincoln

**Cynthia H. Catherwood**, *CDS (Curriculum Design Studio) Coordinator*, B.A., M.A., Creighton University

**Teri Quick**, *IFEX and Learning Communities Coordinator*, B.S., Northwest Missouri State University; M.S., University of Nebraska at Omaha

## Institute for the Culinary Arts and Horticulture Studies Area

**James E. Trebbien**, *Dean of Culinary Arts, Hospitality, and Horticulture; Executive Director, Institute for the Culinary Arts*, A.A., Metropolitan Community College; B.S., Mankato State University; C.C.E., C.C.A., American Culinary Federation

**Elizabeth Augustyn**, *Hospitality and Restaurant Leadership Instructor*, B.S., University of Nebraska at Kearney; M.A., Bellevue University

**Steve Bell**, *Culinary Arts and Management Instructor*, A.O.S., Culinary Institute of America; B.A., Marist College

**Kristina Engler**, *Horticulture, Land Systems, and Management Instructor*, B.A., College of Saint Benedict; M.L.A., M.U.R.P., University of Minnesota; LEED BD+C

**JoAnne Garvey**, *Culinary Arts and Management Instructor*, A.A.S., Indiana Vocational Technical College; B.A., Calumet College of St. Joseph; C.E.C., American Culinary Federation

**Janet Mar**, *Culinary Arts and Management Instructor*, baking, pastry, sugar, and chocolate certificates, San Francisco Baking Institute; Ewald Notter Pastry School and the French Pastry School; A.A.S., Metropolitan Community College; B.S., Simmons College; Ph.D., University of Pittsburgh; food science certificate, University of Nebraska–Lincoln

**Todd Morrissey**, *Horticulture, Land Systems, and Management Instructor*, B.S., M.S., University of Nebraska–Lincoln

**Tim O'Donnell**, *Culinary Arts and Management Instructor*, B.S., Johnson and Wales University; C.E.C., A.C.E., American Culinary Federation

**Brian O'Malley**, *Culinary Arts and Management Instructor*, B.A., New England Culinary Institute

**Donna Rankin**, *Horticulture, Land Systems, and Management Instructor*, B.S., M.S., Murray State University

**Oystein Solberg**, *Culinary Arts and Management Instructor*, Norwegian culinary diploma, Steinkjer VGS

**Joellen Zuk**, *Hospitality and Restaurant Leadership Instructor*, B.S., University of Nebraska at Omaha

## Literacy and Workplace Skills Area

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## Math and Natural Sciences Area

**Bradley Morrison**, *Dean of Math and Natural Sciences*, B.S., M.S., Idaho State University

**Ahmed Adala**, *Mathematics Instructor*, B.S., M.S., Northeastern Illinois University

**Kandyce Arnold**, *Mathematics Instructor*, B.S., M.S., Chadron State College

**Adriel C. Baltimore**, *Mathematics Instructor*, B.S., M.S., Creighton University

**Lois Bartsch**, *Biology Instructor*, B.S., M.S., Iowa State University; Ph.D., Washington State University

**Howard Bohm**, *Chemistry and Physical Science Instructor*, B.A., New York University; Ph.D., Adelphi University

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**Jose Conceicao**, *Chemistry Instructor*, B.S., Hope College; M.S., Yale University; M.A., Ph.D., Rice University

**Patricia Conrad**, *Mathematics Instructor*, B.S., Regis University; M.A.T., Christopher Newport University

**Bernadette Corbett**, *Chemistry Instructor*, B.A., Walsh College; M.S., University of Mississippi

**Carla Delucchi**, *Biology Instructor*, B.A., University of California; Ph.D., Cornell University

**Jennifer Doorlag**, *Mathematics Instructor*, B.A., Northwestern College; M.A.T., University of Nebraska at Omaha

**Joyce Fischer**, *Chemistry Instructor*, B.S., M.S., Ph.D., University of Nebraska–Lincoln

**Michael Flesch**, *Mathematics Instructor*, B.S., M.S.Ed., University of Nebraska at Kearney

**Chad Haugen**, *Mathematics Instructor*, B.S., M.S., University of Nebraska at Omaha

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**Larry Hoppel**, *Mathematics Instructor*, A.A., Norfolk Junior College; B.A., Doane College; M.S., University of Nebraska–Lincoln

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**Zaher Kmail**, *Mathematics Instructor*, M.S., University of Nebraska at Omaha

**Joseph Lee**, *Mathematics Instructor*, B.S., M.A., University of Nebraska at Omaha

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**Marianne Roarty**, *Mathematics Instructor*, B.S., M.S., University of Nebraska at Omaha

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**Marcia Vergo**, *Mathematics Instructor*, B.S., University of Nebraska at Kearney; M.S., University of Nebraska at Omaha

**Dustin Waderich**, *Mathematics Instructor*, B.A., M.A.T., University of Nebraska at Omaha

**Alan Wasmoen**, *Biology Instructor*, B.A., Concordia College; M.S., Mayo Graduate School of Medicine

**Frank Weidenfeller**, *Mathematics Instructor*, B.S., Briar Cliff College; M.A., University of Iowa; M.S., University of Nebraska at Omaha

## Social Sciences Area

**M. Jane Franklin**, *Dean of Social Sciences*, B.Ed., B.Ph.Ed., Brock University; M.Ed., Iowa State University

**Victoria Alapo**, *Social Sciences Instructor*, B.S., University of Ibadan (Nigeria); M.S., Western Kentucky University

**Kojo Allen**, *Social Sciences Instructor*, B.A., Lougaloo College; M.A., Jackson State University

**H. Lynn Bradman**, *Social Sciences Instructor*, B.A., M.A., University of Nebraska–Lincoln

**Stewart Brewer**, *History Instructor*, B.A., M.A., Brigham Young University; Ph.D., University of Albany

**Mary Burbach Cooper**, *Sociology and Human Relations Instructor*, B.S., University of Nebraska–Lincoln; M.A., University of Nebraska at Omaha; A.B.D., Washington State University–Pullman

**Julio Caycedo**, *Social Sciences Instructor*, A.A.S., Rick College; B.A., M.L.S., Ph.D., Brigham Young University

**Jennifer Cohen**, *Psychology Instructor*, B.A., University of Nebraska–Lincoln; M.A., University of Northern Colorado

**Nancy Conrad**, *Social Sciences Instructor*, B.A., University of Nebraska at Kearney; M.A., University of Nebraska–Lincoln

**Jennifer Fauchier**, *Social Sciences Instructor*, B.A., University of Dubuque; M.A. (R), St. Louis University

**Amy Forss**, *History Instructor*, B.G.S., M.A., University of Nebraska at Omaha; B.S., Peru State College; Ph.D., University of Nebraska–Lincoln

**Kathy Halverson-Rigatuso**, *Early Childhood Education Instructor*, B.A., Arizona State University; M.S., University of Nebraska–Lincoln

**Jayme Hines**, *Early Childhood Education Instructor*, B.S., Bonaventure University; M.Ed., College of Charleston

**Jessica Kunz**, *Human Relations and Education Instructor*, B.S., Wayne State College; M.S., University of Nebraska at Omaha

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**Carol Moore**, *Psychology Instructor*, B.S., Wayne State College; M.H.R., University of Oklahoma; Ph.D., Capella University

**Ryan Newton**, *Psychology Instructor*, B.A., Wake Forest University; M.A., Southern Connecticut State University

**Joseph Ociepka**, *Social Sciences Instructor*, B.S., University of Illinois; M.S., Western Illinois University

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**Michelle Rerucha**, *Geography Instructor*, B.S., University of Nebraska at Kearney; M.A., University of Nebraska at Omaha

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**James Van Arsdall**, *Social Science and Human Relations Instructor*, B.S., Western Carolina University; M.A., Ed.D., University of Nebraska–Lincoln

**Jennifer Vaughn**, *Psychology Instructor*, A.S., Ricks College; B.S., University of Utah; M.A., Lewis & Clark College

# 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.

**Co-requisite** – 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 in the College 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** – A course that combines classroom learning with a significant online component.

**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 ten-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 13/WI for Winter classes in the 2013 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. Beginning Fall 2013, specialist diplomas are 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](http://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 (Contact 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 (Contact 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 non-College 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 in writing at:

Metropolitan Community College  
Attn: Records  
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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